Mendel University
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The Comparison of Productivity in the Food Industry from International Perspective

Bachelor Thesis

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Abstract

This bachelor thesis deals mainly with the analysis regarding to a food production in a period of the last five years. The first part of the thesis focuses on a food sector of the selected countries from imprortant regions of the world. The following issues write about the other food trading factors, such as the exports and imports or important trading partners as well. Introduction speech of the countries contains a brief description of each of the analyzed countries concerning its geographical location and economic conception. As far as this work is concerned, the attention is neared to the specific food production spheres which are characteristic for each of the selected countries, where most of the facts are expressed in the numbers or percentage. Furthermore, the work takes its direction of the practical part. Short description of each of the analyzed industry, together with relevant figures compares a productivity of the food industries among the most food productive countries. Last part is my own opinion on the education role in the food industry, which refers back to a depiction of already produced food and its waste management. The part also remains how the education is crucial in the Third World countries.

Key words: Food production, education, trading factors

Abstrakt

Bakalářská práce se hlavně věnuje rozboru, týkající se potravinářské produktivity v posledních pěti letech. První část práce se zaměřuje na potravinářský sektor vybraných zemí z důležitých regionů světa. Následující záležitosti píší o dalších potravinářsko-obchodních faktorech, jako je import a export nebo také o obchodních partnerech. Úvodní proslov zemí obsahuje krátký popis každé z analyzovaných zemí, odkazující na jejich zeměpisnou polohu a ekonomickou situaci. Co se týče dalších záležitostí této práce, pozornost je přiblížena na specifické potravinářské sektory, charakteristické pro každou z vybraných zemí, kde nejvíce faktů, je vyjádřeno v číslech nebo v procentech. Dále práce nabírá směr její praktické části. Krátký popis každého z analyzovaných průmyslů společně s příslušnými tabulky, porovnávají výrobu potravinářských průmyslů mezi nejvíce produkujícími zeměmi. Poslední část je vlastní názor na roli vzdělání v potravinářském průmyslu, což odkazuje zpět ke znázornění doposud vyprodukovaného jídla a jeho plýtvání. Tahle část také zmiňuje jak je vzdělání podstatné v zemích Třetího Světa.

Klíčová slova: Potravinářská produkce, vzdělání, obchodující faktory

Content

1 PREFACE

Securing nourishment has been accompanying humankind since the very beginning of its existence. Hunger has became an overriding indicator of development among all civilizations. In the course of time some regions were able to extricate themselves from famine, regrettably some regions were not aware of the crushing aftermath and have to battle against this destructive force till today.

Food intake across the world is not alike. Simplifying this issue, by introducing the division of hungry south and prosperous north, might level off the uncertainities about the food problem in the matter of centuries. Meanwhile in the developing countries this problem is represented by miscellaneous phases of starvation, whereas over developed regions have trouble with surpluses and leftovers as the main challenges to be solved.[1]

Few years ago, I found myself imprisoned in my thoughts about understanding of the spreading food problem question, I was trying to search for the answers that appeared to be more and more vague. As far as I am concerned, I consider the opportunity to write about this topic to be interesting, topical, enriching and helpful for the generalisation of the world food production perspective during the last five years, as it could help me to become more aquainted with it and knowledgeable in this field. Nevertheless, given the length of this summary, the work can not aim to cover all countries of the world. This problematic subject should not be handled in superficial way as it is advisable to be discussed at international level.

The second purpose of this work is to describe the main food industry spheres, related to the world food production. The following analasis might depict this sector efficiency in the selected countries and show the output of the food commodities in each of them. The work is mainly focused on developed countries, in order to observe the quantity of edible goods our world generates. We can not get any further if we are not able to deal with food waste managment.

In the last point, I would like to highlight the export, import, trading partners or related associations and organizations in the selected countries, in relation to the world largest chains and the cooperations between them.

[1] We can also speak about the obesity

2 METHODOLOGY

This thesis mostly extracts the online data from diverse data offices and statistics such as FAO, UN[2] and other corresponding data from government sources in each of the states.

The work is divided into the theoretical and practical part, whereas the first chapters are about analysis of the selected countries. Each description of the countries, which has been selected from important parts of the world, includes a view on the food industry from the following perspectives: geographical and economic situation, food production, import and export values, typical food sectors for each country, the most important corporations and companies operating in specific regions and other information according to each country food industry. After the analytical part, one should be able to make his own picture about the surplus of food products.

The next section is more the practical part of this thesis, where the tables are collected in the most cases from the FAO online statistics, which will introduce the results of the world producers according to the most important food commodities. These industries are divided into their own sections according to their importance as a whole. Countries were chosen according to the most productive countries from each region of the continent,[3] if they were not mentioned in the analytical part. The perspective in these figures is rather detailed in the meat and dairy industries as I considered them as the most important spheres in the food production. The following comments and proposals shall be a critical summary of the role of education in the world´s food production and suggest some solutions while putting forward several questions of importance.

This is followed by the conclusion containing my personal attitudes and referring back to my examples of the countries.

[2] FAO - Food and Agriculture Organisation, part of theUN. UN – United nations
[3] For instance regions like East Africa, West Europe, North America or South Asia

3 BASIC TERMS DEFINITION

The food industry has gone through many changes since the first seed was planted into the dirt. New operative values are rapidly reshaping the current world food situation. The products offered in our stores differ either in the agriculturale origin or food industry.[4] All of these offered goods, including people´s food consumption and markets themselves, are being influenced by the operative values or indicators such as natural and physical resources, current energy costs, setting of strategic localizations, climate conditions, effects of the outer world together with globalization or the latest progress of urbanization and the people´s income growth.[5]

Comparing the agriculture in the Third World countries, for instance with the USA, describes this context in the last deacades in a really suprising way. Although the modern agriculture is a recent phenomenon in Western civilization, we can say that food industry and the agriculture in the developing countries have courageously moved forward like never before. Since in developing countries, the field of agriculture is greatly represented, which is not the case in other important fields, we can notice traces of change. These countries employ almost 4/5 of their population in the agriculture sector and introduce 1/3 of the world´s food crude production.[6] Nonetheless, in the developing countries, the choice of products is limited and these countries export more goods than developed regions, of which some have almost a full assortment of products.

In today´s world, we are probably facing the biggest food world crisis after the World War II. Steadily increasing prices for food afflict the world´s population and they will probably reach an unacceptable stage of paying for them. More and more people will need the financial or food donations. This is how the threat of famine from the 1990´s can reappear,[7] even within the bigger consequences which would spread at local, national, regional and at last international levels. Those would include the reduced availibility of food products (especially for the

[4] By agriculturale commodities, we mean fruits or vegetables, whereas food industry products include smoked meats, breads and rolls, dairy products, beverages, fishes, etc. Food industry output is divided into products of animal or plant origin.

[5] BALDWIN, Cheryl. *The 10 principles of food industry sustainability*, Wiley-Blackwellm2015, Iowa, 224 pages cm. ISBN 9781118447734.

[6] BALDWIN, Cheryl. *Sustainability in the food industry*. 1st ed. Ames, Iowa: Wiley-Blackwell/IFT Press, 2009, xvi, 257 p. ISBN 0813808464.

[7] Undernourishment and famine killed almost 6 million people in a year, mostly in Sub-Saharian Africa and millions of people suffered from its had accountable consequences in the following years

consumers from poor classes). Food insecurity and virtual uncertainty of having some food in the next days.[8]

The french ex-president Nicolas Sarkozy[9] proclaimed that 37 out of 196 countries are finding themsleves in food crisis.[10] That means a little bit more than every fifth country is suffering from this issue. We can say that the lack of food, mainly in the developing countries, is a global problem, whereas over-abundance of food is just a specific problem of the developed regions. In general, this fact is caused by the interconnection between the technological, political, social, environmental and economic aspects resulting in the wrong consumption and distribution of the products.[11] FAO (Food and Agriculture Organisation) separates regions according to their agricultural production into four levels of food consumption, based on the economic value achieved. This fragmentation is related with the food problem and equally makes the situation more understandable. The systematic distribution will be discussed in the analytical part of the thesis.

„Technologies in agriculture, especially in the United States and the European Union, have been highly succesful in raising productivity and increasing production far beyond internal needs and local markets“.[12]

4 ANALYTICAL PART

Following data and information will show the perspective on the selected countries from point of view of the food industry.

4.1 OCEANIA

This region, consisting of thousands of unique islands spread across the South and Central Pacific Ocean is called Oceania, where the famous islands such as New Zealand or New Guinea can also be found.[13] The biggest part of land part there is Australia, however, at the same

[8] The state of food insecurity in the world, FAO, 2014, [on-line].
[9] President of France in the period of 16 May 2007 till 15 May 2012
[10] Food security summit in 2008 in Rome (sometimes also called FAO : Rome Summit: developing local agriculture is the key)[on-line] More information of the summit can be found: http://www.ambafrance-gh.org/Food-security-summit-French
[11] JENÍČEK, Vladimír. Sustainable development – content, results, perspective, Agricultural Economics, 2005, pages. 1–11 [on-line]
[12] Baldwin J. Cheryl, *Sustainibility in the food industry*, pg. 14 cit.[2015-03-15].
[13] Island which is located as a part of Indonesia as well as a state of Papua New Guinea which belongs to the Oceania region

time it is the smallest continent in the meaning of the total land area in the world. Oceania is generally divided into a regions: Polynesia, Melanesia, Australasia and Micronesia and then into many sub-regions, for example: Fiji, Vanuatu, French Polynesia or the Marshall Islands, etc., but the food habits do not differ so much, thanks to the common domestic market and factor drivers, too. In all Pacific societies the food has been facing many cultural changes and challenges as the people of the Pacific have been exploring new lands with their environment.

As a source of meat is mostly used the world famous lamb meat from the large flocks of sheep. Apart from lamb, beef, pork and fish meat is produced as well. From more exotic kinds of meat, we can mention kangaroos, crocodiles, ostriches or buffalos. The greatly sophisticated fish-collecting pools offer catches as sharks, lobsters, salmons, octopuses, shrimps or crawfishes and many others. Apart from the clear water, another important source of drinking liquids are coconuts with its nutritious milk inside the shell, which are also used as dishes or other sorts of manual tools, and last but not least, the inhabitants add coconuts to their sweets including cakes and cookies. There is a high domestic demand for dairy products, which is going to be mentioned later. Lot of food and bevarage exhibitions are also being organized, for instance: Good Food and Wine Show in Melbourne and Sydney in Australia or Foodtech in the city of Auckland in New Zealand.[14]

4.1.1 AUSTRALIA

Nowadays, Australian food industry (including Tasmania island) plays a big role in the world food production as a supplier for more than 65 million people.[15] The food traditions evolved through history, given that lots of strangers migrate to Australia. If we skip the early history and move straight to the 1840´s when the Potatoe Famine in Ireland striked,[16] we can notice some influences in eating habits. Lots of Europeans and Asians people moved to Australia during and after the World War II. After that, even more Europeans brought their traditional food and beverages, such as Italians or Greeks with their cheeses, tea, coffee or cocoa and, so one. Many cultures are being depicted in the Australian food daily food routine. It also has to be that

[14] Information on more gastronomic festivals, can be found on the following link:
http://www.tofairs.com/fairs.php?fld=20&rg=4&cnt=&cty=&sct=

[15] Australia is inhabited by less than 24 million people, in terms of the foreign trade, we can see that the export is 4 times bigger than the import

[16] Famous incident is also called as the Great famine from 1845-1852 where about one million people died and another million emigrated, when the potato plants, as the Irish primary source of food, suffered from an infection

despite the recent widespread rains, most of the time this land faces dry weather conditions, which can be really notably reflected in the food industry.

As for the Australian food expenditures and revenues, these can be analyzed with help of the following indicators:

Concerning the farm and fish production yield, it was estimated at 34.8 billion American dollars annually in the last five years, where the biggest part was the meat production with 34% (2.166.000 tons of beef, 865.000 t polutry, 648.000 t lamb with mutton and 325.000 t of pork creating the total production of 4.004.000 tons or 33.2 million pieces). The second were grains and oilseeds reaching almost 28% (grains used in milling industry constituted 2.700.000 tons of the total production). The other products constituted 22% (horticultural products, eggs, wine, dry groceries, etc.), the next were milk and dairy products with 10% (with 9.1 billion litres of the total production) and seafoods with 6% (including 43.000 t of crustaceans, 34.000 t of molluscs and 121.000 t of fishes consisting together 198.000 tons).

As for the exports, the country earns approximately 30 billion of american dollars yearly. The other products had the highest percentage of 29% and then meat had 28% (including all kinds of the meat, which was approximately 1.414.000 tons). The third were grains with 18%, followed by wine with 12% (exported wine grape of the total amount of 762.000 tons), dairy products with 11% (including 61.500 tons of fresh dairy products with fresh milk and cream and the dairy products such as cheese, butter, fat and milk powders, making up together about 464.00 tons), and seafoods with only 2% (32.000 tons of all of the species together).

On the other hand, the import value was calculated up to 6.8 billion with a dominance of the other goods with 64% (including grains and meat), then seafood with 15% (217.000 tons of all species together), the next were beverages with 10% (including fresh dairy products with fresh milk and cream calculated up to of 8.100 tons, and the dairy products such as cheese, butter, fat and milk powders, which made up together around 103.000 tons) and horticultural products with 7% (63.800 tons of fruits and vegetables together). The imported food is subject of *Imported Food Control Regulations* since 1993 by entering the *Imported Food control Act* in 1992.[17]

[17] „ Act to provide for the inspection and control of food imported into Australia, and for related purposes“ – Imported Food control Act 1992, Australian government [on-line]

Another thing worth mentioning is the retail food disposals which achieved almost 100 billion american dollars. The biggest part was taken by supermarkets (for example the Aldi supermarket chain) and grocery stores with 62%. The next were the coffee bars and restaurants with about 12%. Both takeaway food outlets and the other food retailing reached 10%, and the last one was the liquor retailing.[18]

The main Australian trading partners according to Australian Food and Grocery Council are the USA, where the import (about 3.2 billion USD) slightly predominates the export (about 2.3 billion USD), New Zealand with quite balanced import and export values (import of 2.2 billion USD and export of 1.9 million USD), the next is Japan with a big difference between export (almost 3.5 billion USD) and import (just about 0.3 billion USD), China, which has almost the same level of import and export values, but the export value is a bit higher (almost 1.5 billion USD) than import (less than 1.4 billion USD). The next partners are the United Kingdom, Republic of Korea, Ireland, Thailand, France and Germany, where the last three mentioned countries supply Australia with the products, instead of taking some food from them. All these numbers come from year 2011.[19]

The food consumed inside the country can reveal lot of crucial data about the import as well as about the export. These numbers have been the same for more than 2 years and do not differ very frequently. The domestic consumption of these commodities in Australia is the following:[20] Meat – 90% (Beef, Pork, Lamb, Poultry, Mutton), Seafood – 28% (Rock Lobster, Pearls, Abalone, Prawns), Fruit – 90% (Banana, Guava, Mango, Avocado, Lime, Star apple, Jakfruit, etc.), Vegetable – 85% (Potato, Broccoli, Cauliflower, Tomato, Spinach, etc.),[21] Eggs – 100%, Dairy products (fresh) – 100% (Fresh milk, Cream), Dairy products – 74 % (Cheese, Milk powders, Fat, Butter).[22]

Meat industry[23] in Australia has been facing several problems in the recent years. First of all, the food costs are rising and so not just only beef producers sell their products for poor

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[18] The percentages show the economic value, not weight

[19] All of these data, including the specific branches of the food industry, were collected on the websites of official food chain intelligence, 2008 and from the FOOD MAP – An analysis of the Australian food supply chain by Department of Agriculture, Fisheries and Forestry in Australia, 2012 [both on-line]

[20] The Rest consists of import (the 90% of domestic consumption of meat can be understood as that the 10% of consumed meat was imported)

[21] All of the seasonal fruit and vegetables can be found on http://seasonalfoodguide.com

[22] SHORT, Christopher, Courtney CHESTER a Peter BERRY. *Australian food industry: performance and competitiveness*. Canberra, A.C.T.: ABARE, c2006, viii, 71 p. ABARE research report, 06.23. ISBN 1920925783.

[23] Beef industry is sometimes also called red meat industry

prices. Among other social factors, there are also concerns about the environment, welfare and diet issues. These factors then lead to technological and economic concerns such as the use of bioproducts for bioactive recoveries[24] or the current value of Australian dollar. which has had negative influence at the present, but in the future can also have possitive influence mainly in the beef, lamb and pork production, given that the poultry production serves mainly for the domestic purposes. Alongside these factors we can name the high transportation costs from Australia - for instance, for the USA it is much more favourable to take beef from Brazilian or Argentinian breeds instead of Australian ones. Another thing is the competition with the neighbouring New Zealand, mainly in the matter of lumb production. The political factors contribute to the fact that meat processing industry is one of the most regulated in the world and the laws are very strict. These factors are mostly being discussed within the meat industry associations including about twelve communities. The most important ones are Australian Meat Processor Corp. (AMPC), Australian Beef Association (ABA) and Australian Meat Industry Council (AMIC).[25]

More than 40% of the beef is consumed domestically and is therefore the major production industry of the country. The biggest part of the meat industry of the livestock in Australia is made in Queensland, Victoria and New South Wales. As it was mentioned above, there has to exist diversity among the prices, during the specific periods which depend on the export demand, feed availibility, weather conditions and the livestock diseases.[26] In retail chains, beef has the highest share per capita for fresh meat consumption. Poultry industry has gone through a singnificant change. With the rise of the fast food and take away stops, the demand for chicken meat has increased inmensly. Given this factor, Australia is a beneficiary of this commodity as a non-importer. The market growth was also accompanied by positive changes in quality in terms of freshness and ripeness. Nowadays, poultry can be compared with meats like beef or lamb. The lamb meat industry can be characterized by a decrease in the global production. However, the domestic consumption and export are intensive and the country is still profiting from the benefits given the reduction of world supplies. As for the pork meat industry, the import slightly exceeds the export. Domestic market consumes about one third of the

[24] *Food for Health*, Department of Health and ageing in Australia, Canberra, 2005, ISBN 1864961171. [on-line]
[25] *Overwiev of the Australian Food Industry*, Dr Silvia Estrada-Flores, Sidney Convention and Exhibition Centre, 2008 [on-line]
[26] Bovine spongiform encephalopathy (BSE) is neurodegenerative disease that harms cattle brains and spinal cords, it is also known as a mad cow disease. Another one of the diseases can be mouth and foot disease

livestock and makes many carcasses left unused. Pigs have faced several diseases in the last years, but now the problem is solved and pigs are often used to produce smallgoods.[27]

The Australian position in seafood industry is really sorrowful. This sector is widely reliant on import impact. All of the imported products are frozen, but they are being served to the domestic market as fresh products. Wild-catch of the seafood has reached almost two-thirds of its total production and is commonly used on the black market. The demand is higher for the processed and prepared portions of the seafood such as rock lobsters, abalones, pearls or prawns (which are together making 86% of the Australian export in this branch).

The most important areas of milk production in Australia are New South Wales, South Australia, Victoria and also Queensland. Its dairy exports exceed 7% of the world trade. Several problems occured there, the most serious one happened during 2006 - 2008 when the very long drought caused decrease in the quantity of livestock producing milk. It is not only this kind of difficulties that associations like Dairy Industry Association of Australia (DIAA), Queensland Dairy farmers Organisaton or Dairy Industry Development Company (NSW) have to deal with. Almost 55% of the national milk[28] flows to the domestic market, of which 27% are cream and yoghurts. Except of the fresh dairy products there are manufactured dairy products including fat, cheese, butter, certain kind of oils and milk powders. There is a strong demand for the dairy products in Australia.

More than 20% of the Australians are employed in the horticulture sector. Last year, this field employed almost 100.000 people. Fruits and vegetables are mainly used on the domestic market as the numbers for export are little bit higher than for the import. Products with the highest production rates include bananas with limes, and potatoes with tomatoes. Big drivers of values are yearly seasons. Thus the supply from foreign countries is quite stable and the bigger part of fruit and vegetables is being enriched by the local producers.[29]

The grains, especially flour products, are in more than a half represented by the bread, then pasta, biscuits and the rest is being used for industrial purposes.[30]

The consumption of other products, for example eggs, has increased in the course of last years. Price of eggs is mostly influenced by the farm-based or label-added factors. Egg producers

[27] Bacon, smoked meat, ham, sausages

[28] Among fresh milk (dairy) products, we can find fresh white milk from fat-reduced or full-cream

[29] *An overview of the horticulture code*, Australian Competiton and Consumer Commision, 2007 [on-line]

[30] *Final report Form*, Grain Research and Development corporation, 2011[on-line]

are self-sufficient.[31] Common beverages which are drunk in Australia are juices, spirits, sparkling drinks, soft drinks, tea or coffee, beer and wine. The consumption of juices, soft drinks and alcoholic beverages has risen in the last few years.[32]

Between top Australian companies, there can be found CCA (Coca-Cola Amatil distribution beverages except the beer), Riverina (beef, especially angus production) or Nestlé (mostly dairy products).[33]

4.1.2 NEW ZEALAND

Across the North and South Island[34] one can find virgin landscape with a great potential for the growing of natural-based products. Healthful environment with a clean fresh air and intensive sunshine are changing with necessary rainfalls. This is providing the fabulous conditions for growing of plants and breeding of the livestock. The population, slightly over than 4.5 million people makes this country from its bigger part uninhabited, according to the country localization and isolation from the world. New Zealand was forced to make up its own independent food system with the self-sufficient domestic market. This was successfully fulfilled. Not just because of a suitable weather,[35] but also free plains were used for the enormous sheep runs, nowadays these cattle ranges exceed even a half of the countryside land area.[36] It is considered that one time, there were in the golden ages over 90 million sheeps, especially during 1900 to 1920. Nevertheless, this amount was radically reduced, because of the contribution to the greenhouse effect and also decreasing demand, so in the last 2 years production has declined to approximately 30 million pieces, also partly due to the reason of droughts in 2011 and 2012. At that time, also dairy industry production declined about 6.5%.

[31] *Eggstra 2014 Spring and Winter*, Australian Egg Corporation, 2014 [on-line]
[32] *Food and beverage Industry*, Australian Competition and Consumer Commision, 2006 and *An analysis of the Australian food supply chain* by department of agriculture, Fisheries and Forestry in Australia, 2010 [both on-line] and SHORT, Christopher, Courtney CHESTER a Peter BERRY. *Australian food industry: performance and competitiveness*. Canberra, A.C.T.: ABARE, c2006, viii, 71 p. ABARE research report, 06.23. ISBN 1920925783.
[33] *Food and Drink Bussiness*, Budenheim, Danisco, Novozymes, Red Arrow, 2013-2014 [on-line]
[34] And about 30 next other small islands such as: Kawau, Ponui, Codfish, Matakana, Arapawa, Waiheke etc.
[35] Also flow of the donations from the farmers
[36] BRADSHAW, Michael J. *World regional geography: the new global order*. Boston: WCB/McGraw-Hill, c1997, xxi, 594 p. ISBN 0-697-21692-6

Citizens of New Zealand are enjoying the high living standarts with a developed economic sectore.[37] This high living standart has its roots in the agriculture and mostly in a food industry. New Zealand was one of the major food suppliers for the United Kingdom before the 1980´s, in terms of receiving a big revenues from dairy products, meat and further sheep wool. Then the United Kingdom had joined the European Union and the trade routes were forgotten. So New Zealand after several economic crisis,[38] headed off the bad times by negotiating of a new trading partners, in the closer Southeast Asia and neighbouring Australia, which later occured as a very profitable forward trust.[39] Next larger partners such as Japan, EU or the USA joined afterward.

In 2007 Jon Barnet said: „*Pacific people enjoyed traditionally diverse ways to achieve food security, through gardening, fishing, hunting, and selling products or labour for cash"*.[40]

Following indicators will show the facts of food production, during the last four years in New Zealand:

In 30th June 2014, dairy cattle was measured up to 6.748.200 pieces, which is about 4% higher number than in the previous year, from that it was produced 19.1 litres billion milk. Total lamb was counted up to 24.899.300 pieces,[41] which is about 9 million less than in the year 2007. Beef cattle had 3.635.000 pieces, which has decreased slightly in comparison with the last year as well as deers to 949.400 pieces. Last was a pig breeding with 285.500 pieces. Poultry meat had 230.400 tons measured in 2012. Last two mentioned kinds are usually sent to the domestic market. In 2010 seafood industry reached 483.200 tons. According to the New Zealand agriculture area usage, the largest part (about 50%) occupy meantioned sheep flocks, then another 15% is breeded for other meat, onward plants and crops take 14%, dairy production with 12% and deers had 3%.[42]

Total exports of New Zealand which was earned in the turn 2013 and 2014, amounted 62.4 billion american dollars in the all categories. Food and beverages occupied first place with

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[37] According to the Human Development Index New Zealand occupies 7th position in the world ranking within the value of 0.910 in the HDI number, from the UN report in 2014

[38] Fincial or oil crisis in 1973

[39] BIRKS, Stuart a Srikanta CHATTERJEE. *The New Zealand economy: issues and policies*. 4th ed. Palmerston North, N.Z: Dunmore Press, 2001, 403 p. ISBN 0864693885

[40] It is necessary to remain, that author J.Barnett meant this statement on the pacific people and islanders, what he has seen as the immigrants in New Zealand –J.Barnett, *Security and Climate Change* 2007, pg. 32 [cit. 2015-03-29].

[41] In this branch is also instead of pieces use term heads

[42] *Agricultural Production Statistics: June 2014,* Statistics of New Zealand [on-line]

23.8 billion american dollars, exactly 38% and left all other exported goods far behind them. Between the top trading partners belong China (receives 18.6 of the total food and beverage export from New Zealand, from that makes 30% milk powder or 7% sheep meat), the USA (11.3% of the total food and beverage export from New Zealand) and Australia with United Kingdom (10.6% heads right to Australia).[43] This flow of export is also ilustrated by a percentage.[44] The biggest exported part created whole dairy production with 36% (fresh milk and milk powder 20%, cheese had 5.5%, butter 6.5% and 3% was the rest). All kinds of the meat had together 26% (therefrom 12% of lamb meat, 8% beef, 2% pork, 2% poultry, 1% venision[45] and another 1% represented other kinds of meat), the other products with 20% (horticultural products, dry groceries and beverages, but this time without wine). Calculation of sea food was 8%. The rest 10% were divided into the same portion between a wine and grain production, consequently both had 5% in the whole food and beverage export sector. Interesting is the shifting of the grain and oil production through the decades. Since 1880 composed this branch over than 90% of New Zealand´s production, however by the degrees it has started decresing up to nowadays less than 5%.

Food and beverages import worth in the turn 2013 and 2014 was accounted to 4.44 billion american dollars, so yields were evaluated in the balance of 19.21 billion american dollars. For the trading partners are valid the similiar countries as in the export and import.[46] New Zealand food and beverages import is really low against the other industries. More or less, the bigger part is made of vegetable, animal meat, bakery goods or chocolate.

New Zealand economy relies on the food and beverage sector. The crucial role, which earns the bigger part of revenues in the export sphere has, except dairy industry also red meat industry supplying the world by lamb, beef and venison meat. Demand´s trend for the red meat is still raising and there occurs a question, how to fulfill this potential with such an experience like in the New Zealand country. A competition on the market is big, tangibly from Brazil and Argentina (beef supply) or neighbouring Australia and also China (lamb supply). Alongside meat are also exported leathers, wools, offals, fells and so one. This contributed by 800.000 american dollars to the country´s wealth. Over 90% of lamb, deer and beef meat is exported away from the

[43] Big purchaser is also Saudi Arabia by the buying of live sheeps
[44] In this case following numbers were collected from the final report of the Ministry of Economic Development in New Zealand from October 2010 and Ministry of business, innovation and employment The New Zealand Sectors Report, 2014 [both on-line]
[45] Meet from deer
[46] Statistics of New Zealand, 2014 [on-line]

country, rest is rather than the domestic market even needs. Nearly 2.5 % of laborforce works in the red meat industry sector. Quality is an influencing factor in a selection of meat, concretly freshness or level of ripeness. Well-fed animals are accomplishing these conditions just like a tender, health-status or package servises of meat. That is why consumers and distributors[47] keenly appreciate New Zealand´s meat offer. Interesting fact is a barrier restriction in Korea and Japan, which accounts 40% of the paid tarrif, even though Korea and Japan stay in the last five years at the highest ranks of the customers, related to meat supply from New Zealand.

The aggressive strategy programmes, appreciable quality and low production cost have made New Zealand world leading country before Australia, in the export of lamb and mutton meat. Nonetheless, this branch was slowed down by droughts as well as in Australia. The advantage of having the only one rival called Australia, helped both countries make together 90% of the world export share, related to sheep meat industry. This is mainly because the sheep breeding in India, Sudan or Pakistan can satisfy only domestic demand, regarding to the growing population index.[48]

Almost one-third of the world total export of dairy production embodied in New Zealand and also meanwhile they are the first world exporter of butter with more than 40% share. The country sends away about 95% of its dairy products for the outer market. Despite freshly problems with a rapid reduction in the distribution,[49] they are doing very profitable in this sphere. Big investments to research and exploration is a consolidating product´s quality. This placement of the capital has developed in the recent years a sort of form required the bio-health, low-fat, high-protein and calcium products.[50]

Marine area of 4.1 million km² and clearness of the waters offer dandy conditions for a fishing industry. In the last year the export was in excess of 1 million american dollars. Seafood species are similiar to Australian ones, thus shrimps, crawfishes, crabs, oysters or tuna are very common.[51]

[47] Even some world famous restaurants b.e.: French Laundry in California or Gordon Ramsey´s restaurant in New York city
[48] *Meat in Focus*, The Meat Industry Association, 2011 [on-line]
[49] According to OECD dairy report, 2012 [on-line]
[50] *IUF Dairy Division*, New Zealand Dairy Industry, 2011 [on-line]
[51] *The New Zealand fishing industry*, Ministry for Primary Industries and Statistics of New Zealands, 2014 [both on-line]

Next source of income is a horticultural production. The most important plantations are situated on the North Island in localizations of Tuaranga, Hawkes Bay and Northland, where are growing kinds like kiwi, apples, vine grapes, peaches, pears or cherries. On the South Island is dominante the odd of Alexanra Cromwell plantation. In the last year there was spreaded a cultivation of green peas or avocados.

Tha main folder among the beverages creates surely wine. Since 2007 there has been a shooting up of the popularity of New Zealand wine. Approximately 155 million litres of wine were expanded during the last season, thereout 50% addresed to the United Kingdom. Big demand is mainly for a reason of quality, related to red and white wine . The world famous types of wine like Chardonnay, Sauvignon, Riesling and many others, have their rootage berries in the vineyards of Hawkes Bay, Waiheke or Canterburry. It is said, that the grapery Montana Wines was proclaimed in the London´s news, for the uniquely taste of the Sauvignon Blanc mutation, as even preferable supplier than the many French graperies.[52]

Among the biggest players of the food and beverage industry in New Zealand include: Fonterra (Controls almost 30% of the world dairy market), Meat Industry Association (MIA), AFFCO New Zealand (leading beef and lamb producer in New Zealand) or Alliance group (processing of meat).[53]

4.2 SOUTHEAST ASIA

Southeast Asia is a one of the sub-region on Asia territory, which locates in the south from China, eastward from India sub-continent, northerly from Australia and westward from pacific Melanesia.[54] From a geographically point of view, Southeast Asia is made of Indochina peninsula, with its salient Malay peninsula and also of Indonesia and the Philippines archipelagoes, which are meanwhile the two biggest archipelagoes in the world. Germane to a division, Southeast Asia subsumes its mainland or continental part, where are clasiffied countries like Myanmar, Thailand, Laos, Vietnam, Cambodia. The second side is so called maritime or also island part, including states Singapore, Indonesia, Brunei, Philippines and East Timor.[55]

[52] New Zealand Winegrowers Annual Report, 2013 [on-line]
[53] Food and beverages companies according to IndexNZ
[54] Sometimes is also introduced as a island of New Guinea
[55] Official name of this country is Democratic Republic of Timor-Leste, but it is not so common for the public. Christmas Island are also part of Southeast Asia sub-region, however they do not have their government and also arises under territory of Australia.

Malaysia classification is divided into the West Malaysia, which lies on Malay peninsula (continental part) and the East Malaysia, which occupies north parth of the island Borneo (Sabah, Sarawak and Labuan).[56] The biggest economy from this territory owns Indonesia. Also few famous phenomena come from here, like Asian tigres (dragons), famous as the newly industrialised countries with their high developing economic potential or the golden triangle known for their drug trafficking.

People from Southeast Asia mostly live on the countryside and their daily bread is achievable only through the agriculture. In the area of this sub-region resides a lot of ethnicity groups with a different culture and religious confession, which can be reflected in the feeding manners. Increasing population and wage levels are the crucial driving factors for demand. In this region, the globalization has signed its impacts notably, western diets are being used throughout the cities by a rapidly spread of fast foods, take away stops and new restaurants. This competition evokes continuous investment in the branding and advertising for a purpose of receiving new consumers and their attention. A problem of entering local markets in this region can be seen, that new brand comers are willing to start their businesses in the largest trade centres in Jakarta instead of focusing on a minor potentially market, elsewhere in the region. This relates also with a transportation trap across the whole island part of this subregion. Lack of innovation in the trasportation routes and facilities, also tends to an inappropriate storage infrastructure. Setting of the optimal distribution strategy can be a key for many wholesalers, distributors and investors.[57]

4.2.1 **VIETNAM**

Country situated in the east coastline of Indochina peninsula is endowed by a breathtaking deepness and exotic beauty. From the population of 90 million people, approximately 70% earns their living in the agriculture sectore. Upon this country, the world can see what does it mean to brace from a totally bottom up. It might be an ideal example for the world in terms of improving economy and development.

[56] BRADSHAW, Michael J. World regional geography: the new global order. Boston: WCB/McGraw-Hill, c1997, xxi, 594 s. ISBN 0-697-21692-6.
[57] *A Recipe for Success in Southeast Asia´s Food and Beverage*, Neale Jones, Peter Walter, Manas Tamotia, – L.E.K, 2014

Economy of Vietnam was mostly affected by a foreign countries. They suffered as their products were uninterruptedlly removing, during the colonial period to France and within the World War II to Japan. Since 1955-1975 Vietnam was fighting for its independence and the fact is that they actually won the war, but losses were beyond our imagination. Miserable economy, devastated environment and pithless health statuses will never be paid back, which has this warfare ever caused. Finally point was completed by a destructive typhoons in the 1980´s. In 1975 Vietnam was written even on a list of the poorest countries in the world and roughly 10 years later, their GDP was classed among the 5 lowest in the world. One year later there were a couple of reforms in the economy, with an aim of eliminating the crisis and increasing of a living standart. Desired goals were fulfilled and a law of foreign invetments was accepted by a government.[58] In 1995 Vietnam was intaken to the ASEAN organization. Their annual growth in the economy markedly rised to estimated 7% each 7 years.[59] Since 1990´s, Vietnam is considered as a member of the Asian Tigres. Despite a corruption level, outdated techology or imperfect government status, this country proved that none fight is aimless.

Vietnam has became from addicted state to import, the fourth world biggest producer and the third biggest exporter of rice commodity.[60] This is the main crop in this country and during the last year there were produced around 45 million tons. Well-raising grain is also corn with production of 5.5 million tons. In the Central Vietnam highland, with a generality of narrow plains, also belong next successfull crops like sugar cane, maniok or horticultural outputs. Meat and dairy industry are still behind a Vietnamese fantasy, even though the largest part takes a pork production with 26 million pieces of pigs, poultry with 318 million pieces and 7.6 million pieces of beef cattle. Dairy production is still not self-governing and producing only 30% for domestic demand. Seafood production was measured up to 6.8 million tons. Among the important trading partners befit Japan, China, the USA and Germany.[61]

Food and beverages are not so worthy commodities on the export scene like the electronical products or crude petroleum. The most exported food commodity is coffee, where Vietnam occupies the second position in the worldwide distrubution.[62] This export yield was two years ago 3.50 billion american dollars. The next commodity was rice with the export share of

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[58] TRAN-NAM, Binh a Chi Do PHAM. *The Vietnamese economy: awakening the dormant dragon*. New York: RoutledgeCurzon, 2003, xxvii, 372 p. ISBN 041529651x.
[59] Vietnam General Statistic Office´s data, 2013 [on-line]
[60] In exporting is1st India and 2nd Thailand, according to the world statistic portal datas from 2013
[61] General Statistics Office of Vietnam, 2013 [on-line]
[62] Right behind Brazil, 2014

3.25 billion dollars (more than 7 million tons). Coconuts and cashews[63] were on the 3rd place, reaching 1.33 billion american dollars. The next rapidly increasing field of the wide spreaded export is a fishing industry. Vietnam is also the biggest producer of pepper in the world, but revenues were not so high, respectively 735 million american dollars. Horticultural production amounted over 550 million USD and tea exports were about 200 million USD, which the greatest consumers are the United States of America or Australia.[64]

According to an inadequate supply of dairy and meat production, there appears a great opportunity for some foreign countries in the exporting of food and beverages. The most imported are soybean meals in a value of 1.1 billion american dollars, the next is a frozen meat with almost 1 billion USD. Wheat, apples, baked goods or dairy products are next delivered commodities.[65]

The coastline of 3.260 km, approximately 3.000 of islands plus nearly 2.900 rivers, contribute to a swiftly rising seafood production in the recent period.[66] In the south, where lies the Mekong River Delta and in the north the Red River Delta are plentiful for fishes. With such a smashing conditions, this industry has a great potential to become the main income sphere of Vietnam, in the near future.[67] Exports of this branch earned 7 billion american dollars. This is because of a low profitable value of the rice production, where a majority of fields have been replaced by the growth of freshwater prawns (45% of the Vietnamese fishery contains whiteleg shrimp and giant tiger prawn), pangasius (striped) catfish, tuna or hard clams. Main trading purchasers are Russia, the USA, Japan and the European Union.[68]

Further growing industry with a great forecast for the future are fruits and vegetables. There is no monopol in this industry, plenty of small plantations in property of the farmers make together an enormous complex. With innovation of a technology and reduction of problems related to pesticides, the growth of vegetable has a big promise of achieving its peak of the worldwide export. In the northern highlands area, prosper products like tomatoes, lettuce, brocoli

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[63] Cashews make 1/3 of the world market, so they are the largest exporter of this commodity

[64] Shawn S. Arita and John Dyck. *Vietnam's Agri-Food Sector and the Trans-Pacific Partnership*, EIB-130, U.S. Department of Agriculture, Economic Research Service, October 2014. [on-line]

[65] *Economics of food production and consumption in Vietnam,* Linh Hoang Vu, Paul W. Glewwe, 2008 [on-line]

[66] From the year 1990 to 2010 this branch production increased about 410% and export revenues around 24,550%

[67] Typhoons, overflows or storms are the constrains which Vietnam has to face, that is why these disasters scaled down the marine fishery

[68] *Value Chain Analysis,* Nguyen Minh Duc, *2011* and *Fishery Industry in Vietnam*, VietinbankSc, 2014 [both on-line]

or pepper. Around the Red River Delta, is a range of tropical vegetable and potatoes. In the south of these localizations lies the central highland with a lot of potatoes, tomatoes, peppers or lettuces and what is concerning to the last part, in the southeast coastline is situated the Mekong Delta with tropical vegetables and citrus fruit.[69]

Among famous companies and associations in the Vietnamese food and beverage industry appertain Highlands Coffee (chain producing fresh coffee at the stores), Bien Hoa Sugar (sugar corporation) or Culong Fish (exporting frozen processed striped catfish).[70]

4.3 WEST AFRICA

This region is still developing and needs to allure the attention of outer aid. The area bounded by Atlantic Ocean in the south and west, Sahara desert in the north, lake Chad and the mount Cameroon in the east, has been also affected by social and economic environment which was knocked back into a mixture of traditional and modern feeding habits. A deposit of natural resources have attracted a lot of foreign countries.[71] The population is spaced out through the region unevenly[72] and inhabitants are living in rural areas, where the most populated is famous Gulf of Guinea. Fertile lowlands with a fluctuating weather are perfect sources for the agriculture of a certain kinds of crops, which are the most common cultivating commodities here. Countries like Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea Bissau, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, St.Helena, Senegal, Sierra Leone and Togo[73] are willing to improve their development level, which can be rather achieved through the agriculture.[74]

What people in this kind of poor region really need, is a nutriment food which can be simply gained. Characteristic for the West African nations are starches.[75] They are unpretentious for a growing and quick digestible with its fast conversion into the energy form, thanks to

[69] Sustainable Horticulture Crop production in Viet Nam, Kelsey Propsom, 1970, Horticulture Opportunities in VIetnam, Fresh Studio Research [both on-line]
[70] Vietnam Itrade market datas, 2014 [on-line]
[71] Oil and Uran in Nigeria, Bauxit in Guinea or diamonds in Ghana and Ivory Coast
[72] Deserts are almost unihabited
[73] BRADSHAW, Michael J. World regional geography: the new global order. Boston: WCB/McGraw-Hill, c1997, xxi, 594 p. ISBN 0-697-21692-6
[74] Rise Crisis, Market trends, and food security in West Africa, OECD, 2008 [on-line]
[75] Cassava as a one of the primary starches is getting popular in the USA in preparing of substance Fufu, which serves for expample to adding a taste of cakes.

important carbohydrates. Raising crops such as sweet potatoes or millets, are containing these important nutrients and they have also became the primary source of a feeding.[76]

A horticultural production is in the equator zone really common. Mangos, coconuts, avocados, pineapples, grapes, bananas, citruses or water melons are several types of the fruit, which is cultivated here. West Africa climate is warm and hot during a year, although from June to September there usually occurs a rainy season, encourauging all sorts of the crops, while meat and dairy products are hardly obtainable to come by.[77]

4.3.1 **IVORY COAST/Côte d'Ivoire[78]**

Ivory Coast can be mentioned as a country with a great potential of achieving the certain level of development. Contrary to the colonization period and following changes in their culture, this country is partly self-sufficient in terms of securing food and beverages, even though that in the western part exist,[79] practically two changing seasons of a wet and dry weather during a year. Population is estimated to 24 million inhabitants across the area of 322.464 square kilometres. The country is bounded in the south by Atlantic Ocean, in the southwest by Liberia, in the northwest by Guinea, in the north by Burkina Faso with Mali and in the east by Ghana.[80]

This country dominates by its natural resources such as gold, diamonds, oil. Ivory Coast is still not healed from the political crises in 2002 which sprained into the two civil wars.[81] A consequence resulted in declined economy about 10% and a loss of foreign investments as well. Big population growth, with over than 50% of urbanization rate is persecuting this country like never before. Their government should use subsidies predominantly to the raising of agriculture sector instead of their own purposes. Alongside improvements in the political instability, the next

[76] JENÍČEK, Vladimír. *Sustainable development of landscape and village – the criterion of multi-functionality.* Agricultural Economics, 2003, n. 5, page 233– 238. ISSN 0139-570X [on-line]

[77] *Food Security and Nutrition Trends in West Africa – Challenges and the Way forward*, Cristina Lopriore and Ellen Muehloft - FAO [on-line]

[78] In this work will be used an international term Ivory Coast instead of traditional name Côte d'Ivoire

[79] Closer to the eastern part the climate is changing and reshaping into a 4 regular seasons

[80] BRADSHAW, Michael J. *World regional geography: the new global order*. Boston: WCB/McGraw-Hill, c1997, xxi, 594 p. ISBN 0-697-21692-6

[81] In 2002 was the 1st civili war in which were fighting rebels against the government, where about 2,000 people died, second civil war started in 2011 estimating 3,000 killed people – *They killed them like it was nothing*, Human Rights Watch, Rafael Jimenez, in New York, the USA,pages 130, 2011, ISBN: 1-56432-819-8 [on-line]

step which must be done is also reducing of a spreaded diseases[82] and slowing down of the population growth.

For almost 50% of the people in Ivory Coast, domesitc agriculture means the money for their living. This sector relies rather on the human hands instead of machines and advanced technologies. A food production contributes to the economy boldly. It really helped them to get out of the underdevelopment related to many crucial phases. Citizens are engaged in the employment of a growing and rearing food, which they also consume,[83] cashing up the adequate wages and supporting the state´s economy in return of the better living conditions. This food production is mainly based on the characteristic essential crops for its location. A lot of products made in Ivory Coast lack the added value, so they are exported as a raw material and afterward sold away to the foreign markets for cheaper prices.[84] These low costs for the commodities are no longer the only one problem in the food production. Causes for a land property or sometimes a poorly organized production management harass their traditional agriculture. Diseases and incuriousness from the younger generations can influence country future too. Neighbour countries such as Burkina Faso with a cotton production or Ghana distributing cacao or coffee, create a competitive market for Ivory Coast. The same valids for Vietnam and India with a cashew production or Latin American countries exporting the favourable fruit goods. This is why a plenty of farmers in the recent years remodeled their production to a palm oil or profitable rubber trees.

The top from food production, forms the majority part of cocoa beans with the value of 949.2 million american dollars (24.5% in the total production) and land of 6.940 hectars (31% in the total arable area). The next, relates to its financial value, were yams[85] with 869 million USD (22.4%) and the area of 2.151 hectars (10.4%). Third was cassava evaluated to 339.6 million USD (8.8%) and the extent of 339 hectars (4.9%). Following commodities according to their worth rate, ensued in this sequence: plantaints (303.8 mill. USD, which is 7.8%, the area of 382 hectars, which is 5.5%), bananas (186.5 mill. USD, which is 4.8%, the land of 183 hectars, which is 2.6%), rice (143.3 mill. USD, which is 3.7% and the area of 375 hectars), coffee (139.1 mill. USD, which is 3.6%, the area of 585 hectars, which is 5.4%), maize (121 mill. USD, which

[82] Most spreaded HIV disease in the world
[83] This sector supplies workers with starches (sweet potatoes, cassava or yams) and cereals (corn, millet, fonio, sorghum) and with rice
[84] *Agriculture Overwiev in CÔTE D'IVOIRE*, Kadio Ahossane, Abdulai Jalloh, Gerald C. Nelson, and Timothy S. Thomas, Chapter 5, 2010 [on-line]
[85] Also known as a sweet potatoes

is 3.1% and the extent of 292 hectars, which is 4.2%). A value of cashew nuts is low, but they seized almost 657 hectars (9.5% of harvested land). Most consumed are yams (almost 30% of the total consumption), cassava (17.2%) and plantains (nearly 11%) with rice (7.7%).[86]

During the year 2012, cocoa beans represent 23% of the whole export in Ivory Coast and regards to the leading commodity of the export in this country with the total share of 2.8 billion american dollars and 609.443 tons. Behind the cocoa beans, was a cocoa powder (cocoa butter and cream included)[87] with 313.517 tons in the value of 1.2 bill. USD. The next were the cashews in tonnage of 307.505 and a value of 375 mill. USD. The palm oil followed with a share of 272 mill. USD, then bananas made of 259.941 tons and earnings of 220 mill. USD. Coffee, fishes or pineapples are the next exported products out of the country.[88]

Demand for the imported goods is quite high as the population is increasing. Requsted milk[89] is hardly achievable through its freshness and long distances of a non-dairy cattle. So dairy occupied the 4th position with a value of 80 mill. USD. First was the importation of rice with a share of 678 mill. USD. The next were frozen fishes having a little bit than 300 mill. USD. Growing wheat has fought through the middle position in the last years up to the third rank, reaching 189 mill. USD.[90]

Horticultural sector is very important here as it is valid for all African nations. Fresh pineapples are exported mostly to the European market. In the world, Ivory Coast is behind Costa Rica, that is why the pineapples production contributes a lot to the Ivory´s GDP. A competition is increasing as well, especially in Honduras and Ghana. Plantains are also being produced as they can be easily confused with bananas[91], however bananas fields are also very common here. Also mango[92] can be found in Ivory Coast. Sunny weather prospers not just to the fruit production, but also likely vegetable kinds. Bell peppers, okras or tomatoes are grown on

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[86] FAOstat 2010 and *Agriculture Overwiev in CÔTE D'IVOIRE*, Kadio Ahossane, Abdulai Jalloh, Gerald C. Nelson, and Timothy S. Thomas, chapter five, 2010, dairy and meat cattle is not counted due tothe lack of datas

[87] Ivory Coast cocoa beans and cocoa paste is the most exported in the world-wide

[88] *Cote d'Ivoire's Commodities Export and Shipping: Challenges for Port Traffic and Regional Market Size*, Nomel P. Stéphane Essoh, Scientific Research and OEC facts, 2012(Observatory of Economic complexity) [both on-line]

[89] There was an offer from a big dairy Denmark company which wanted to distribute milk across Ivory Coast, but the lack of the big supermarkets did not allow the access to the market and they were looking for somebody with knowledge of the market. - *Arla Foods eyeing African dairy opportunities,* Mark Astley [on-line]

[90] *Import Demand for Dairy Products in Cote d'Ivoire.* Selected Paper prepared for presentation at the American Agricultural Economics Association Annual Meeting, Long Beach, California, July 23-26, 2006, Joseph V. Balagtas, Jeanne Coulibaly, Ibrahim Diarra and OEC datas [both on-line]

[91] The larger shape, thicker coat and almost sweetless taste are charakteristic for plantains

[92] Vendor along the road can chop this sweetness and prepare it for you in a few seconds

the plantantions. What is hard to find here is majority sorts of salads, which do not need so shiny weather.[93]

The palm oil is the next really good exported commodity as well as the cashews and nuts. Concerning to a taste, local spices are really strong in Africa. Chilli, cayenne pepper or ginger are produced in Ivory Coast either.

Meat industry is not so well-progressed in Ivory Coast, but this does not mean they do not eat meat at all. Poultry or pork are the most significant sources of a protein in Ivory coast as a milk production is not so advanced and beef cattle is rare to be spotted. Lot of fishes and seafood can satisfy domestic demand and the rest part of them is packed, frozen and exported away.

Beverages are priced as a gold in Africa. Drinking water is somewhere hardly reachable in Ivory Coast and the interesting fact is also a bad access to drinking up a cup of coffee here.[94]

Among the biggest Ivory Coast players in a food industry area belong SICFA distributing palm oil, sugar cane and rubber. Societe de Limonaderies et Brasseries d´Afrique (SOLIBRA) is the main producer of soft drinks and beer in the country. Societe d´Usinage et de Conditionnement du Sud Quest (SUCSO) is a company with cocoa plants proccesses.[95]

4.4 EUROPE

Whole Europe is simply defined as a developed region, somewhere more and somewhere less. Crucial function of industry sector in Europe rests in a food production. It is the biggest sector with a value of the total earnings around 14.6%.[96]

As Europe is in many terms the sufficient developed continent, there are being solved some higher problematic matters. Modern trend in Europe is a fitness life, closely connected with crucial comestibles. The last years consumers were looking for a taste of food or how does it look like, but with an irrelevant and often fallacious information about the product. Nowadays, more and more people are keep trying to find out where does this food come from, what is it

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[93] *Are Horticultural Exports a Replicable Success Story? Evidence from Kenya and Cote d'Ivoire*, Nicholas Minot and Margaret Ngigi, 2004 [on-line]

[94] Coffee beans are exported from the country but they are in the raw phase. To gain them back is costly proccess for many African nations.

[95] *Ivory Coast Report*, Marcopolis.net [on-line]

[96] *Agro-food sector in Europe*, Central Access[on-line]

made of or how many nutritious values does it contain. According to the development index, daily food can be healthy and high quality valued in majority of the European corners.[97]

European food market offers a plenty of new opportunities for the brand new investors and entrepreneurs, opening their businesses. This is a possitive actuality for the market in providing of innovations and necessary new types of products in the spirit of respecting environment.[98] The improvement of innovation[99] is the concept, where the attention might be truly focused on. Alongside the innovation in production, spheres like better packaging methods (products made of bio-natural origin), bigger allocatiton resources efficiency, issues of scarcity, decreasing of the gases and greenhouse emissions, stronger recycling recovery (waste management of food or redrafting of the used water) and reducing the food and beverage impacts on the enviroment have to be solved as well.[100]

In the food industry, European export aproximatelly incorporates 4.2 million people and number of 290.000 companies, that is why there can be surely said that food sector is the biggest part of a strong European economy (around 20% of the total share of industries) in meaning of the turnover (14.6% share), added values (12.5% share) and employment (15.5% share), even when the badtimes strike. Relating to the employment, the average of workers employed in a company is 16 persons per one firm, whereas 30% of employees lack an adequate qualification. The exports are in a rate of 95 billion american dollars and the import reached 69.5 billion USD so the balance equals to a surplus of 25.5 billion USD. Big role in Europe represent retailers and medium seized companies, where with only 4% of amount in the whole food production sector, they create almost 30% of the whole turnover and engage 26% of a workforce in this sector.

Individual sectors are kind of stabilized. In the whole production, according to their value, meat industry has the biggest earnings. Just 4% beneath the meat industry are the other products.[101] With 14% were ranked beverages and also dairy products. Share of 11% made bakeries and farinaceous products, then animal feeds, horticultural products or oils and fats. Regarding to numbers of companies, the first are bakeries with a dominance of 54%, then with 13% are meat producing companies, the other products and beverages companies have a share of

[97] *Food and Fitness*, Glyn Sanders, 2006 [on-line]
[98] *Agro-food sector in Europe*, Central Access[on-line]
[99] The greatest innovations were noticed between the dairy products, ready-made meals, soft drinks, frozen products, biscuits and poultry
[100] O*verview of Food and Drink*, Anita Fassio, 2011 [on-line]
[101] Cocoa, sugar, spices, tea and coffee, etc.

8%. Expenditures in a consumption of food and drinks in Europe regards to 14.6%[102] and it is the second largest sectore where the people spent their financial savings most (the first is housing, energy and money for the water).[103]

4.4.1 GERMANY

Official name of this country is The Federal Republic of Germany. This country lies between Poland, Czech Republic, Austria, Switzerland, France, Denmark, Belgium, Luxemburg and the Netherlands. Germany is surrounded in north by the North and Baltic sea. The area of 357.000 square kilometres host nearly 81 million of inhabitants. Its landscape provides good growing conditions for the specific sorts of food. Many hills, lakes, rivers, woods, valleys, the Alpine mountains or the seas in the north, are situated in this Central European country.[104]

The economy of Germany is really suffiecient. First of all, it is the biggest economy in Europe and the 4th largest economy in the world, thanks to the discipline of Germans and technology improvement. Engrossing deed is a small sheduentation in employment of agricultural sector, in despite of a big utilisitation of arable land from the agriculture perspective.

Reality is that Germany can be proud of their leading on the European food and beverage market.[105] This country tops in a production of milk and potatoes in the whole Europe and meanwhile is a really competitive in processing of beef, pork, grains and sugar beet. Food production of Germany equals to approximately 2% of the whole European´s Gross Domestic Product. Retailing revenues reached in 2013 amount of 198.5 billion american dollars, whereas the exports were 59 billion USD and sales in a food services were 76.3 billion USD, even though that the food industry in Germany is the fourth biggest one. This sector includes about 6.000 companies and 560.000 people.[106]

Thanks to an impressive quick adaptation[107] regarding to the consumer wants and needs, this industry got easily over the economic and financial crisis. The result was a degradation of

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[102] The biggest consumption of food and beverages in Europe are in Lithunia, Romania, Estonia or Latvia

[103] *Data and Trends of the European Food and Drink Industry*, 2013-2014 [on-line]

[104] BRADSHAW, Michael J. *World regional geography: the new global order*. Boston: WCB/McGraw-Hill, c1997, xxi, 594 p. ISBN 0-697-21692-6

[105] Before France, Italy, Spain, the Netherlands and the United Kingdom

[106] *The food and beverage Industry in Germany*, Germany Trade and Invest, 2014-2015 [on-line]

[107] Especially accomodation in ageing and health problems matters - diabetes, high-blood preasure, high cholesterol - convenience, health and wellness food products

unemployment rate from 11.3% to fabulous 5.3%,[108] during unbelievable last 8 years as well as GDP level has increased upon the pre-crisis rate. That is also why Germany is deemed as a one of the most-performing country among the OECD´s.[109] By understanding of the mentioned facts can be thought high living conditions of satisfied Germans. Bigger wages, better jobs and general wealth contributed to the household´s gladness. Nevertheless, this social welfare outcome as almost anywhere else, is not being distributed equally.[110] In the value-added meanings, Germany is the second largest exporter in the world (behind the USA).

The biggest part of the food industry creates meat and sausage production, together amounts 24% of the total food production, after dairy products with 16 % of the total production, then baked goods upon 9% of the food production (the biggest production of rolls and bread in Europe), confectionery with 8%, alcohol beverages about 7%, non-alcoholic drinks with 4.4%, oil and fats upon 4% and cofee with tea at 2.3%. This production has also profited from the strong-based economy and low unemployment rate. [111]

According to a safety and healthfulness of the products, also an organic food has reached the certain acknowledgement. Favouring of healthier organic goods is getting on the popularity and this movement achieved its mainstream status in this country. Actually Germans are the most consuming organic packaged food and drink nation, in a value of 8.4 billion american dollars for the organic food sales in 2014.[112] Almost 30% of the sold organic products were marked from Germany, where also supermarkets started establishing their own organic labels. This dynamical market is benefiting from its high quality, acceptable prices and spreaded avaibality. Among the most profitable products belong: organic bakery products with retail sales around 660 million USD (biscuits, bread, cereals, cakes), organic baby food with sale values 430 million USD (milk formula, dried baby food, prepared baby food) organic confectionery with retail sales of 250 million USD (chocolate sweets or sugar sweets) and organic spreads with sales around 220 million USD (honey and non-honey spreads). Significant growth of the organic

[108] It was even greater than before the crisis level, although it does not reflect at the germany´s poverty, which is still on the relative same standard

[109] But it is not mentioned by manual skills comparism, adult population is underskilled, solution might be promoting of the young entrepreneurs

[110] *Germany Keeping the edge: Competitivness for inclusive growth*, OECD, 2014 [on-line]

[111] *The food and beverage Industry in Germany*, Germany Trade and Invest, 2014-2015 [on-line]

[112] Ahead of France (4.4 billion of USD), the United Kingdom (2.2 billion of USD) and Italy (1.4 billion of USD)

production was noticed between potatoes (raised about 17%), milk (11%), meat products (also 11%), horticultural outputs (growth of fruit increased around 10% and vegetable 7%).[113]

Last year, food export in Germany observed its worth around 58.9 billion USD.[114] Meat industry had 20.3% share of the total export, where the most exported[115] was a pork meat in total 2.633.333 tons (whereas 331.000 tons headed to Italy, 263.680 t to the Netherlands, 160.630 t to the United Kingdom or 157.554 t to Denmark), then a beef meat had totally 568.787 tons (from this 79.515 tons headed to the Netherlands, 54.970 t to France or 42.959 t to Italy) and in the last set poultry with 568.787 tons (the biggest customer was the Netherlands 129.773 tons, France with 55.746 t and the United Kingdom with 42.635 tons).[116] Then dairy industry with the total share in the food export of 17.3% and a value of 8.18 bill. USD, where the largest consumers was Asia, without Russia, Kazakhstan and Arabian Peninsula, (468.528.500 USD), Africa including all states (212.580.500 USD), Custom Union of Russia, Kazakhstan and Belarus (177.768.800 USD), Arabian Peninsula (148.236.420 USD), then in the following order were North America, South and Middle America or Oceania[117]. The next are confectionery with the total export share of 11.2%, where a weight was amounted up to 1.448.286 tons as did the turnover 5.501.922 american dollars. Therefrom 32% created cocoa products, almost 11% were made of chocolate confectionery, ice cream had 10.4%, other 10.1% contained another cocoa processing products, sugar confectionery shared 6.1%, afterward were biscuits, snacks, nuts and pastes.[118] The other products within the prepared meals shared 8.1% in the exporting of national food. Further were fats and oils reaching almost 7%, alcoholic beverages had 6.7%, where a big part is made of beer. With 5.8% got placed horticultural origins, whereas interests are focused on domestic members. Major part is generated by vegetable, in the last year most exported were cabbages, about 107 tons, then onions with 79 tons, root vegetable 55 tons and following were leaf salads, tomatoes and other vegetable products. Related to fruits, the first was exportation of a pome fruit with 83 tons, then a stone fruit[119] 28 tons, strawberries with 13% and the other kinds of fruit.[120] The another ranked commodity were starches with 4.7% of the exports. Coffee and

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[113] *Organic Packaged Food and Beverage in Germany*, Agriculture and Agri-food Canada, 2011 [on-line]
[114] *The food and beverage Industry in Germany,* Germany Trade and Invest, 2014-2015 [on-line]
[115] According to its price worth
[116] GEFA- Pressenkonferenz zur IGW 2015, Exportdaten Fleisch, 2015 [on-line]
[117] *Dairy Market Situation*. Export Union e.V., 2015, Berlin [on-line]
[118] *German Foreign Trade of Confectionery Products*, BDSI, 2014 [on-line]
[119] Pome fruit are kinds like apples or pears and stone fruit means cherries, plums or peaches
[120] Bundesvereinigung der Erzeugerorganisationen Obst und Gemüse e.V., BVEO, 2015 [on-line]

tea were right behind with 4.4%. Fishes had 3.5%[121] and then came after suga, sauces, spices, refreshments, bakery goods and pasta. So the biggest exported destinations of Germany are:[122] Asia 3.63 billion USD (China 1.32 billion USD and Japan with South Korea had almost the same numbers about 0.33 billion USD), America (USA 1.54 billion USD, Canada 0.33 billion USD or Brazil with 0.11 billion USD) then Africa (almost 1 billion USD in total) and Oceania (0.44 billion USD together).[123]

Meat industry together with the sausages or smoked meat is the biggest sector in food production. Popularity in the consumption is driven by byorganic production as well as packed sausages in a glass or can form and prepared barbeque meat. Attractive are also sausages variations - for example from a poultry meat. In virtue of a big muslim population side and their manners[124] there would be even bigger meat consumption inside the country. There also exist a couple of associations controling the meat quality like German Cattle Breeders´ Federation (ADR), German Pig Association (ZDS), German Poultry Association (ZDG), Deutscher Vieh- und Fleischhandelsbund.e.V. (DVFB).[125]

Dairy production within 2013 produced 31 million tons of milk, which made this country 6th largest producer in the world. There is about 30.000 people included in this second biggest food and beverage sector in Germany, comprising also 150 dairy processors. Average consumption has been progressively increasing and nowadays regards to 109.6 kg per capita consumption during a one year. On the following example, I will demonstrate how milk market in Germany flows. In 2012 there were 82.865 dairy farmers which produced 30.3 million tonnes of milk where only 1 million went for a domestic consumption. Rest 29.3 million of milk plus 1.4 million imported milk were processed in dairies. Now the distribution of export seized 14.6 million tons (48%), then another 11.3 million tons tended to Food Retails (37%) and the rest 4.8 million tons were spreaded among the wholesalers, consumers, other processes or in a raw food industry. Last point is the consumption, whereas 16.1 million tons (food retails, wholesalers etc.)

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[121] Fishery is operated on the northern shores, where around 45,000 people are included in this inrustry

[122] Without Europe, because the biggest part of goods is travelling to Europe 48,84 billion american dollars, where it is divided on the European Union members: The Netherlands 7,81 bill. USD, France 5,40 bill. USD or Italy also 5,40 bill. USD and non-European Union members: Russia Fed. 1,65 billion USD, Switzerland 1,54 billion USD or 0,55 billion USD to Norway

[123] Food Made in Germany, GEFA-IFAJ, Ralf Pohle, 2015 and *Keeping the edge: Competitivness for inclusive growth*, OECD, 2014 [both on-line]

[124] Saint law from the religious islamic traditions – Halal eating pork for Islamic people, probably that it harms their health

[125] *Germany Livestock,* GEFA and *The food and beverage Industry in Germany,* Germany Trade and Invest, 2014-2015 [both on-line]

were consumed inside the country and 10.1 million tons were imported to Germany. Also other dairy products are prosperously exported such as cheese to Italy with volume of 177 tons, the Netherlands with 101.3 tons or France had almost 50 tons of bought cheese from Germany. In terms of the developing countries, the biggest demnand is from China, where was sent 113.313 tons of milk and cream, then to Nigeria 22.560 tons, Libya 12.223 tons, next were Singapore, the Phillippines, Trinidad and Tobago or Cape Verde. With its good quality full of whey, casein or calcium the contribution to the health of all consumers is holeproof. As it is ordinary in Germany, on the top of the market table are medium seized companies with propensities to the improvement and innovation.[126]

Germany is the greatest supplier of soft drinks and alcoholic contained beverages for the whole Europe. Nearly 16% of alcoholic beverages from Germany are consumed in Europe, suplemented by another 29% of spirits consumption and 23% of wine consumption as well. One-third of Germany beverages consumption govern only three firms and that is why an opportunity to break out of the new venturers is still waiting.

Regardless to the horticultural production, it is highly supported from the foreign countries. Just one-fifth of the fruit and one-third of the vegetable is produced by the domestic suppliers. The biggest supply comes from Spain and Italy, which creates more than a half of imported fruits. Next is France and fourth is the Netherlands. The sales account 3.63 billion american dollars, including 10 companies and 30 recognized producer organizations. This sector in German is still fragmented, however a few companies accomplishing a needful requisities for lifting up this branch of the industry.[127]

Famous companies like Dr. Oetker (powders for cakes, puddings, etc.), Lorenz Snack-World (potato chips) or Haribo (gummy candies) spring right from Germany.[128]

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[126] Dairy Market situation, Export Union e.V., 2014-2015 and GEFA-Ifaj Dinner on German Exports 2015[both on-line]

[127] Bundesvereinigung der Erzeugerorganisationen Obst und Gemüse e.V., BVEO and *The food and beverage Industry in Germany*, Germany Trade and Invest, 2014-2015 [both on-line]

[128] Company list Food and Beverages in Germany [on-line]

4.5 LATIN AMERICA

Speaking about Latin America[129] means, all the countries laying in the whole America region, except Canada and the USA. This region is divided into two parts, concretely midlle and south countries. Area of aproximatelly 19 million square kilometres includes around 600 million people, where almost 30 million inhabitants live under one spent dollar a whole day long.[130]

Geography has a crucial attitude upon the trading on a market scene. Huge supplies of natural resources and the largest agrobiodiversity in the world make this region very special. Offshore areas differ from inner land places in meaning of their trading routes. The Carribean and countries with an access to the Atlantic ocean tend their businesses mostly to Europe, however influental fact is a scepticism between the globalisation and government models of the specific states. On the other hand pacific coastal states are ordinarily trading with the pacific states in Oceania and Asia in a confession of the free trade. In the north eyes are set to the USA market, coherent Mexico is the biggest partner. In the first case we can speak about countries stucked in the Mercosur bundle,[131] second types of countries create the Pacific alliance with the dream of an improvement in a trading partnership.[132]

As for the economy in Latin America, the situation now and nearly 30 years ago really varies. Concepts like dictatorship, high inflation rate or financial debt crisis were common matter of each country in the past years across the Latin America region. As the time has been passing by, a living standart has improved too. A reduction of poverty and positive inflation numbers, economic growth or better medical improvement contributed to a general development. Right poverty is much miscellaneous, on the one hand there is a big step forward in decreasing of poverty numbers, but on the other hand the poorest people do not have enough resources to buy unremittingly increasing prices for food, that makes a big inequality in income terms.[133] In all

[129] Latin because of the colonization period, where Spanish, Portuguese and French people came here and started spreading their languages and beliefs

[130] Population has been determined by impact of illnesses fetched from Europe, esspecialy among native people, we can even still find African slaves brought here by Europeans as well

[131] Promotes so called free trade of goods, services and production inputs among Argentina, Brazil, Paraguay, Uruguay, Venezuela then it associate Columbia, Ecuador, Peru, Bolivia and Chile, but they are not so aboveboard for the world-wide.

[132] *Geography and Socioeconomic Development in Latin America and Caribbean*, John Luke Gallup [on-line]

[133] *Public Agricultural Research in Latin America and the Caribbean*, Gert-Jan Stads and Nienke M.Beintema, 2009 [on-line]

region´s countries is valid for reaching a better food security, that there might be an adequate investment to the agriculture improvement and research.[134]

Also operating of the middle class is acquiring its magnitude. Wealth of this class caused the bigger demand for the premium or luxury items and boosted their economy in many other directions. Food retail sales can be nowadays compared to many western European countries. Over than 50% of retail sales are moreless equally to Western Europe.

4.5.1 BRAZIL

The largest state of Latin America is assuredly country mostly covered by the Amazon lowland called Brazil. The area greater than 8.5 million squared killometres together with estimated 202 million people is considered as the biggest and most populous country in Latin America region. A majority of citizens are concentrated beside the coastline, living in the larger cities such as Sao Paulo and Rio de Janeiro (11 and 6 million inhabitants).

Strong industrial state of Sao Paulo has even one-third influence on the whole country GDP ratio.[135] This contribution with a support of the southeast region provides around 55% of the total production, making it most profitable part of the country. The southeast part includes also more than a half of the retail turnovers, that is why some big supermarket chains came here to catch up the first steps of their promising business.[136] For the sake of a small population density in a north part, even though it is the largest region of Brazil, the contribution to the state´s GDP regards to more than 6%. However only Brazilians are using portuguese language in Latin America, so a distribution of new products and negotiating may differ. Another thing worth reminding is the membership in Embrapa[137] or Mercosur.[138]

To begin with the nowadays sufficient food development of the country, we have to look back into the colonial period. Slaves which were brought here by Europeans, mixed by indigenous people, had to work on the sugar canes plantations in the northeast lands. At that

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[134] *The Outlook for Agriculture and Rural Development in the Americas,* Julian Dowling, FAO, 2012, Santiago, Chile, ISBN: 978-92-5-107355-1 [on-line]
[135] *The New Economic Geography of Brazil,* Clélio Campolina Diniz, 2000 [on-line]
[136] Paulo Furquim de Azevado, Fabio Ribas Chaddad, Elizabeth Maria Mercier Querido Farina. *The Food Industry in Brazil and the United States: The Effects of the FTAA on Trade and* Argentina, BID-INTAL-ITD,c2004, 80 p. ISBN 950-738-173-2
[137] Very important research organization in the field of tropical agriculture
[138] *Brazili´s Food and Beverage Market,* OSEC, 2012 [on-line]

time, also in the southeast part a coffee planting noted down many improvements.[139] As the time had been proceeding, the Brazilian savanas were converted to the fertile plain grounds. This indicated a trend direction between the upper ranks in the world food production.[140]

Federative Republic of Brazil´s economy,[141] despite the unstability in outer world, was developing rapidly till 2011,[142] when the cadence was suppresed down. Notwithstanding, few „unhoped“[143] years affected the economy, Brazil still remains on the top of the agricultural superpowers. The first positions, on the world scene market in exporting of a poultry and beef meat, coffee, sugar, tobacco, orange juice or ethanol[144] are deserved reasons why it is so. A consumption in Brazil is indicated by 30% of spent incomes of the inhabitants. Poor people eat either cereals or sugar processed groceries, whereas higher income earners[145] can mostly choose from a poultry, milk, fruit and vegetable production.

„The Brazilian Industry therefore has its main competitive advantage in logistics, as competitors do not have sufficiently large scale to exploit bulk transportation system“.[146]

Relating to the FAO, the arable land amounts 4 million squared kilometres, where is being used around 0.5 million squared kilometres. The total value of food production is estimated around 200 billion american dollars during the year 2012. A major production, in gross value of goods, from this land is beef with 17.3%, then sugarcane 12.8%, soybeans 12.3%, poultry 11.6%, dairy production 8.1%, maize 7.9%, coffee 6.4% and the rest is made of pork, rice, oranges and the other products.

The most exported commodity in the year 2012,[147] was soyabean in the total value of 17.4 billion USD, then sugar reached 13.2 billion USD, third was poultry calculated around 7 billion USD. The next commoditiy was coffee with earnings of 6.2 bill. USD, after followed

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[139] Also rubber was sufficient until British people have stolen it and started planting in their settlements in Asia. This valids also for gold or cotton production.

[140] *Institutional Development and Colonial Heritage within Brazil,* Joana Naritomi, Rodrigo R. Soares, Juliano J. Assuncao, 2009 [on-line]

[141] Official state notation

[142] During the years 1996-2006 the farming production was even stunning and leaving all the other farmers far behind. From 23 billion of USD between this 10 years production increased up to 108 billion of USD.

[143] The economic growth was expected higher. In 2010 the growth was accounted to 7,5% and next years only around 2,5%

[144] Also the second biggest exporter of corn, soya or grains

[145] Ratio of family monthly income is 1,100 – 2,750 of american dollars

[146] Paulo Furquim de Azevedo, Fabio Ribas Chaddad, Elizabeth Maria Mercier Querido Farina, *The food industry in brazil and the united states*, pg. 54 [cit. 2015-05-02]

[147] According to its cost value

corn with 5.3 bill. USD. The another exported food products were in the order of beef meat, pork meat,ethanol and orange juice. The most frequent exporting destinations in 2010 were: EU 27%, China 14% and USA 7%.[148]

Retailers like French/Brazilian Grupo Pao de Acuar (sales for 57.2 million USD), French Carrefour (sales for 31.5 million USD) or American Wal-mart (sales for 26 million USD) are the major players of supermarket chains in Brazil.[149]

The domestic consumption in 2010 carried an interesting fact that over 90% of ethanol was for inner purposes, then 85% of corn, 83% of beef, 69% of poultry, 55% of soybean, 32% of coffee and just 15% of sugar was consumed in the country.[150]

The import for consumers from all countries amounted in 2012, was nearly 5 billion USD, where the biggest part took seafood (fishes included) about 1.253 billion USD, then dairy products 760 million USD, next was a horticultural production with 750 mill. USD, then meat evaluated on 332 mill. USD, further followed wine and beer, snack foods and nuts, eggs or cereals. The bigggest supplier (without seafood exports) was Argenitina with 1.283 bill. USD, then Uruguay 419 mill. USD, Chille 382 mill. USD and the USA 273 mill. USD. Seafood provisions controled Chile with 316 mill. USD, China 221 mill. USD and Norway 204 mill. USD.[151]

Grains in Brazil have truly well reputation. In 2010 there were harvested like 160 million of tons in a circle of 47.5 million of hectares, where on the only one hectare were planted exactly 3.2 tons of grains. Big deserving on this number had scale mechanization, which means that there can be planted 2 or sometimes 3 crops during a year without any irrigation system (relating to soybeans and maize). For example, this double cropping of a corn production brought results in the summer and winter of 2011, that both harvests had almost the same share of 25% (respectively 35 mill. tons in the summer and 33 mill. tons in the winter). Among the main grains belong soybeans with the total crop area of 49% and 66.365 tons produced, then corn with 30% share of the total area and 67.793 tons produced. The next were the beans with 7% of the total crop land and 2.971 tons produced, further were commodites like rice 7% of the area and wheat

[148] *Brazilian Agribusiness in figures*, Brazilian Governement, 2010, OEC facts (Observatory of Economic complexity) and FAOSTAT [all of them on-line]
[149] *Retail Foods*, Michael Fay, 2013 [on-line]
[150] *An Overwiev on Agriculture and Agribusiness in Brazil*, Rui Samarcos Lora, 2012 [on-line]
[151] *Brazil Export Guide Report*, Global Agricultural Information Network, 2013 [on-line]

4% of the crop area.[152] Mainly because of a curiosity with lack of an adequate bakeries in Brazil, this state has became the third largest exporter of grains, where a lot of big supplies are heading direct to North Africa.[153]

Meat production has a big demand either. Huge pastures area contributing to the quality of red meat. Overall there were 204 million heads of cattle destinated to the meat production in 2010. The area of 170 million hectars contains 1.2 kilogram per one hectar on the average. Brazilian poultry meat is the most exported one in the world, however this country does not produce the biggest amount of this commodity.[154] About 13 miilion tons of poultry meat were produced in 2011, where one-third is determined for the export. Brazil also owns the first rank in the export (approximately 2 million tons) of the beef meat and meanwhile is the second biggest producer. In 2011 there were counted 9.10 million tons of beef. Problem in the recent years was reduction of the export to Europe from 30% to 5%, due to a disproving matters about the origin of the cattle. In case of pork meat, Brazil stands in the production and export on the 4th position with amount of 3.30 million tons.[155]

Brazil is also the largest exporter of the sugarcane and ethanol, in the total production they emplaced on the 2nd position. Harvested area of both commodities regards to 8.4 million hectars (the biggest harvesting area owns the state of Sao Paulo). In this area was produced 36 million tons of sugar in 2012. According to the actual demand, the exporters will decide if to convert this raw material onto alcohol or sugar (this is always in a natural balance).[156]

Different kinds of fruit have a strong production traditions. Brazilian orange juice is the world leader in exporting (60% of world´s exports) as well as in the production. Cultivation of the oranges represents more than a half of a fruit gathering in this land, concretely 18 million tons. The next grown fruits are pine apples, bananas, mangoes or custard apples.

In the very beggining of the last century, coffee commodity regarded up to even 70% in the total food export of Brazil. With the time, foreign countries have established their own labels,

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[152] Cotton ocuppied 3% of total crop area
[153] *Brazil Export Guide Report,* Global Agricultural Information Network, 2013 and *Brazili´s Food and Beverage Market,* OSEC, 2012 [both on-line]
[154] First in the production of poultry in 2012 was the USA (19,2 mill.tons), then China (17,1 mill.tons), *Meat Atlas,* Heinrich B. Stiftung, 2013 [on-line]
[155] Paulo Furquim de Azevado, Fabio Ribas Chaddad, Elizabeth Maria Mercier Querido Farina. *The Food Industry in Brazil and the United States: The Effects of the FTAA on Trade and* Argentina, BID-INTAL-ITD,c2004, 80 p. ISBN 950-738-173-2
[156] *An Overwiev on Agriculture and Agribusiness in Brazil,* Rui Samarcos Lora, 2012 [on-line]

which have been processing the Brazilian coffee beans, so the total profit is lower till today. More or less the export of coffee beans upon this country introduces one-third from the world aspect.[157]

The cooperation of Brazilian food industry with the world is admirable. Fundo Nacala or Africa, Brazil, LAC cooperation are providing aid to the countries in need. Also low carbon emission programme (ABC) and use of biofuels are saving the environmental victims. Among the large food companies in Brazil belong Yogoberry (frozen yoghurts), Caramuru (soybean or corn processing) and Cosan (Sugar production).[158]

The future of this nation can be seen very bright. Likelihood of becoming the world granary in 21st century is high. As it was meantioned this can be achieved through the double or triple crop harvests in a year, enriched by the good climatic weather[159] and strong investment from the Brazilian government to a research of agricultural sector. The next important component is surely a disadvantage of addiction to the foreign export trade and lack of the adequate transport assets.[160]

5 WORLD COMPARISON

During the last few years across the world, every person could have heard about the outbreak of financial crisis in the USA, which has afterward resulted in the global economic crisis. Obviously, the most suffering group is the poorest one. This impact has also reflected in a production of all commodities throughout our planet. Following comparisons will demonstrate origin of products, their quantity, economic growth of commodities and also ranking of the selected countries in the world food production.

„In many countries, consumers are fed up with being deluded by the agribusiness. Instead of using public money to subsidize factory farms – as inthe United States and European Union, consumers want reasonable policies that promote ecologically, socially and ethically sound livestock production.“[161]

[157] Brazili´s Food and Beverage Market, OSEC, 2012 [on-line]
[158] Brazilian Ag. consulting services and investment tours and The Global powers of Brazilian agribusiness, report from Economist Intelligence Unit, 2010 [both on-line]
[159] Sunshine and much of rainfalls
[160] The huge amounts of commodities have to be transported in many cargos
[161] Barbara Unmüßig. *Meat Atlas,* pg.6 [cit. 2015-04-10] [on-line]

5.1 MEAT INDUSTRY

Meat industry is one of the most important branches from the whole food sector. Meat provides us improtant nutrients,[162] although not everybody can find himslef in eating of this commodity. Quality of a raw meat is unreel from a health status of a livestock, its feedstuff and a possibility of movement. This sphere affords many working places as well.

However, how can we understand the global impact by eating of a meat. Does our demand directly influence the clearence of the Amazon rainforest or where does the meat come from? These consequences can not be seen by a normal human eye. Behind all these things stand many bigger players with an idea of maximization their profits, whatever it takes. Developing countries should also change their aims and start distributing their production to the closer destinations, instead of shipping products to far distances.

Meat consumption is still increasing,[163] impacts are outright, worse protection of the environment and strenghtering of an expanding market supply, especially by the huge corporations. This industrialized agriculture leads to a higher demand for the needful meat in the cities. Then the small retailers does not have so many chances as the big whole-salers or corporations. Nevertheless, a gradual disappearing of the smale-scale salers can contribute to a poverty enhancing or lack of the adequate quality of meat.[164] Now, our world has to face solving this problem.

„Personal columnists are jackals and no jackal has been known to live on grass once he had learned about meat - no matter who killed the meat for him.[165]

The world market demand for poultry and pork meat is still raising, whereas beef and sheep meat are stagnating. In 2013, there were about 300 million tonnes of meat, where 110 million tons represented pork meat, then 105 mill. tons was a poultry meat, beef meat had 65 mill. tons, sheep meat with 14 mill.tons and the rest were other kinds of meat such as venison or moufflon meat. From this amount, the consumption was around 80 kilogrames a year per person in the developed countries and 30 kilogrames a year per person in the developing countries.[166]

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[162] Protein, fats, minerals, vitamins, amino acids, etc.
[163] Europe, the United States of America as well as China or India are getting bigger numbers in meat consumption
[164] Frequently and quickly produced meat, where grains are supplemented by hormones, agrochemicals or antibiotics is no healthy
[165] Hemingway, Ernest, *Quotes about Journalism and Journalists*, pg.5 [cit. 2015-04-11] [on-line]
[166] *Meat Atlas*, Heinrich B. Stiftung and FAOSTAT [on-line]

Figure 1: Meat industry production from the world view, 2010

State/Region	Total Meat (mill.tons)[167]	p.a. growth[168] %	Beef and Buffalo (mill.tons)	Pork (mill.tons)	Poultry[169] (mill.tons)
Africa	17,309	4,4	6,884	1,239	4,769
Eastern Africa	3,559	3,4	1,808	0,408	0,503
Ethiopia	0,710	4,4	0,400	0,002	0,052
Northern Africa	5,997	5,3	2,504	0,001	2,059
Egypt	1,950	4,0	0,856	0,000	0,851
Southern Africa	3,075	4,9	0,955	0,322	1,507
South Africa	2,860	5,2	0,848	0,312	1,478
Western Africa	3,473	3,7	1,004	0,354	0,582
Nigeria	1,417	3,0	0,302	0,234	0,268
America	92,879	2,4	30,704	18,664	41,110
Latin America[170]	46,253	3,7	17,386	6,553	21,310
Mexico[171]	5,828	2,7	1,745	1,175	2,722
Dominican Rep.[172]	0,536	4,6	0,113	0,089	0,343
Northern America	46,626	1,1	13,318	12,112	20,800
The USA	42,168	1,1	12,046	10,186	19,583
Asia	123,501	3,2	16,623	62,054	34,858
Central Asia	2,323	4,7	1,346	0,246	0,155
Kazakhstan	0,935	4,2	0,407	0,206	0,103
Eastern Asia	86,904	2,6	7,368	54,194	19,447
China	80,926	2,7	6,545	51,545	17,292
South-East Asia	15,948	5,8	1,737	7,164	6,760
Indonesia[173]	2,849	5,3	0,472	0,695	1,566
Southern Asia	12,342	3,5	4,853	0,352	4,951
India	6,180	3,4	2,556	0,332	2,231
Western Asia	5,984	3,9	1,300	0,098	3,545
Turkey	2,356	5,4	0,622	0,000	1,457
Europe	56,628	1,3	11,001	26,939	16,222
Eastern Europe	16,825	2,8	3,116	6,639	6,222
Russian Federation	7,214	5,0	1,727	2,331	2,610
Northern Europe	8,099	0,2	1,978	3,339	2,305
The United Kingdom	3,522	0,0	0,908	0,758	1,570
Southern Europe	11,881	0,8	2,091	6,004	2,964
Spain	5,339	0,8	0,607	3,369	1,141
Western Europe	19,823	0,8	3,776	10,897	4,731
France[174]	5,745	-1,2	1,530	2,191	1,788
Oceania	5,789	0,7	2,764	0,474	1,092

Source : FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

[167] Data from years 2010-2011, FAO Statistical Yearbook, 2013, pg. 172-176[on-line]
[168] Per annum, total meat industry growth during the years 2000-2010
[169] The biggest lamb producer is Asia region (about 7. mill tons), especially China
[170] Including the whole Caribbean
[171] Latin America representative (the biggest production values has Brazil 23,630 mill.tons of meat, which was mentioned in the analytical part)
[172] The biggest Caribbean representative in the terms of total meat production
[173] The largest production of meat in SouthEast Asia has Vietnam almost 4 mill.tons in total, but it was mentioned in the analytical part
[174] The largest production of meat in Western Europe has Germany 8,220 mill.tons in total, but it was mentioned in the analytical part

5.2 DAIRY INDUSTRY

Milk as a next crucial commodity, made in 2010 total weight of 719 million tons, all over the world. In comparison with meat, milk can provide quick financial returns, so in the developing countries milk is produced by the smallholders and retailers more frequently. Today´s problem is with a health status of a dairy cattle, inadequate feedstuff, shifting weather conditions and restricted access for opening the market. However, dairy production is still continuing and gaining its profits as an important source of a daily food.

Figure 2: Egg, milk, butter and cheese industries production from the world view, 2010

State/Region	Eggs (mill. tons)[175]	Milk (mill. tons)	Butter and ghee (mill. tons)	Cheese (mill. tons)
Africa	2,652	42	0,302	0,989
Kenya	0,081	4	0,015	0,000
Ethiopia	0,035	3	0,018	0,006
Cameroon	0,015	0	0,000	0,000
Egypt	0,291	6	0,128	0,644
South Africa	0,473	3	0,012	0,044
Niger	0,008	1	0,013	0,059
Nigeria	0,623	0	0,011	0,009
America	12,999	176	1,043	6,823
Brazil	2,087	31	0,092	0,045
Mexico	2,381	11	0,020	0,154
Cuba	0,107	1	0,001	0,016
The USA	5,412	87	0,709	5,093
Asia	42,646	262	4,809	1,456
Kazakhstan	0,209	5	0,014	0,019
China	28,015	41	0,100	0,277
Indonesia	1,382	1	0,000	0,000
Myanmar	0,357	1	0,026	0,075
India	3,378	117	3,338	0,000
Turkey	0,740	14	0,156	0,156
Europe	10,545	213	2,375	10,294
Russian Federation	2,274	32	0,207	0,603
The United Kingdom	0,671	14	0,120	0,370
Italy	0,737	11	0,108	1,145
France	0,844	24	0,426	1,898
Germany	0,662	30	0,404	2,029
Oceania	0,250	26	0,515	0,660
Australia	0,174	9	0,128	0,349
New Zealand	0,056	17	0,385	0,311

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

[175] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 177-180 [on-line]

5.3 GRAIN PRODUCTION

Grains or cereals have in the food industry important role, in terms of serving either as a primary crude material for next processing or as a commodity for a direct consumption. This consumption also involves a feedstuff for the livestock. It is the most important commodity in the consumption, especially in the developing countries, where this material is being consumed by 61%, which is more than a majority of the developed countries. Grains can also be one of the alternative nutritions, for the starving humankind before the unstoppable growing population. Wheat, maze, barley or rice provide two thirds of the total people diet, as well as it is the biggest input of the feeding for animals. Since 1960´s, rice and wheat production trippled, and maize production is four times wider today. Desired contibution of most of the grain goods to the global economy can not be denied.

Figure 3: Top 7 world producers of the coarse grain, 2010

State	Total production (mill. tons)[176]	p.a.growth %[177]
The USA	330,581	1,9
China	185,550	4,6
Brazil	57,754	5,7
India	43,072	3,3
Mexico	31,029	2,5
Argentina	30,030	3,3
France	27,379	-0,3

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

Figure 4: Top 7 world producers of cereal, 2010

State	Total production (mill.tons)[178]	p.a.growth %[179]
China	497,943	0,6
The USA	401,670	2,3
India	267,838	0,6
Indonesia	84,797	3,2
Brazil	75,161	4,1
France	68,285	0,9
Russian Federation	59,624	5,9

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

[176] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 159 [on-line]
[177] Per annum, total coarse grain production growth during the years 2000-2010
[178] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 158 [on-line]
[179] Per annum, total cereal production growth during the years 1999-2009

Figure 5: Top 7 world producers of rice, 2010

State	Total produciton (mill.tons)[180]	p.a. growth %[181]
China	197,212	0,4
India	143,963	1,2
Indonesia	66,469	2,5
Bangladesh	50,061	2,9
Vietnam	40,006	2,1
Thailand	35,584	3,2
Myanmar	32,580	4,3

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

Figure 6: Top 7 world producers of wheat, 2010

State	Total production (mill.tons)[182]	p.a. growth %[183]
China	115,181	1,5
India	80,804	0,6
The USA	60,062	-0,1
Russian Federation	41,508	1,9
France	40,787	0,9
Germany	24,107	1,1
Pakistan	23,311	1,0

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

[180] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 160 [on-line]
[181] Per annum, total rice production growth during the years 2000-2010
[182] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 161 [on-line]
[183] Per annum, total wheat production growth during the years 2000-2010

5.4 FRUIT AND VEGETABLE PRODUCTION

Fruit and vegetable products are important for our health as they are containing vitamins and fibres. Daily minimum intake should be around 400 grams, according to FAO. Its labour around the world is firmly represented, and lend to the smal scaled tradesmen a good way of profiting, without any external industrial manifacturing. This wage prospects can heavily reduce poverty, by offering new working places. Almost 3% growth could have been enrolled, during the last few years throughout our planet. The sturdiest player is decidedly China (20% of a fruit output share contribution and 50% share of vegetable to the world).

Figure 7: Top 7 world producers of the vegetable, 2010

State	Total production (mill. tons)[184]	p.a. growth %[185]
China	539,993	4,3
India	100,405	3,3
The USA	35,609	-1,0
Turkey	25,901	0,5
Iran	19,995	5,5
Egypt	19,487	2,7
Italy	14,201	-1,5

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

Figure 8: Top 7 world producers of the fruit, 2010

State	Total production (mill. tons)[186]	p.a. growth %[187]
China	122,350	6,7
India	75,121	5,7
Brazil	38,793	0,5
The USA	26,181	-2,2
Italy	16,908	-0,6
The Philippines	16,182	4,1
Spain	15,456	-0,4

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

[184] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 165 [on-line]
[185] Per annum, total vegetable production growth during the years 2000-2010
[186] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 168 [on-line]
[187] Per annum, total fruit production growth during the years 2000-2010

5.5 SEAFOOD INDUSTRY

Fishes contribution of protein, minerals or essential nutritiens, is very beneficial for a human´s health. This industry is the fastest growing one, what relates to animal production. Fishes are providing for almost 3 million people their 20% of the protein intake. Fishing creates livelihoods and food sources, for the most of people in the developing countries. Problem in the last decades is over-fishing, where big boats are catching up many fishes in their nets at one dash, then the chances of smallholders are usually miserable. Nonetheless, these issues are being solved by the government and organizations for making the fishery more responsible and maintainable.

Figure 9: Inland and marine fish production from the world view, 2010

State/Region	Total capture (mill. tons)[188]	p.a. growth %[189]	inland (mill. tons)	marine (mill.tons)
Africa	7,618	2,0	2,567	5,050
Uganda	0,414	6,6	0,414	0,000
Angola	0,260	0,8	0,010	0,250
Morocco	1,136	2,3	0,007	1,129
South Africa	0,624	-0,3	0,001	0,623
Nigeria	0,617	3,4	0,293	0,324
America	17,217	-3,0	0,543	16,673
Peru	4,261	-8,8	0,044	4,217
El Salvador	0,036	14,1	0,002	0,034
The USA	4,370	-0,8	0,023	4,347
Asia	48,713	1,7	7,697	41,017
Kazakhstan	0,062	1,8	0,062	0,000
China	16,270	0,0	2,289	13,981
Indonesia	5,380	2,8	0,345	5,035
India	4,695	2,5	1,469	3,226
Turkey	0,486	0,1	0,040	0,446
Europe	13,794	-1,2	0,387	13,407
Russian Federation	4,070	0,2	0,263	3,807
Norway	2,675	-0,1	0,001	2,675
Spain	0,969	-0,9	0,006	0,963
France	0,427	-3,7	0,002	0,424
Oceania	1,203	2,8	0,017	0,186
New Zealand	0,436	-2,4	0,001	0,435
Marshall Islands	0,060	21,9	0,000	0,060

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

[188] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 180-183 [on-line]

[189] Per annum, total fish production industry growth during the years 2000-2010

„The ecosystem is affected not just by the loss of the species, but many fishing practices also harm the aquatic environment. Bottom trawling for fish by dragging large nets along the sea floor in one of the most damaging fishing methods.“[190]

5.6 OTHER FOOD PRODUCTIONS

Figure 10: Top 7 world producers of oilcrop, 2010

State	Total production (mill. tons)[191]	p.a. growth %[192]
Indonesia	25,024	9,2
Malaysia	19,090	4,4
The USA	18,855	1,6
China	16,491	0,9
Brazil	13,582	7,4
India	11,879	4,3
Argentina	10,720	5,4

Source: FAO Statistical Yearbook, "World Food and Agriculture", 2013 [on-line]

Figure 11: Top 7 world producers of pulse, 2010

State	Total production (mill. tons)[193]	p.a. growth %[194]
India	17,236	2,3
Canada	5,347	1,9
Myanmar	4,492	10,5
China	3,891	-1,9
Nigeria	3,422	4,3
Brazil	3,172	0,4
The USA	2.592	5,2

Source: FAO Statistical Yearbook, "World Food and Agriculture", 2013 [on-line]

[190] Baldwin J. Cherryl, *The 10 principles of food industry sustainability,* 3.2 fish and seafood ,pg.102 [cit. 2015-05-11]
[191] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 162 [on-line]
[192] Per annum, total oilcrop production growth during the years 2000-2010
[193] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 163 [on-line]
[194] Per annum, total pulse production growth during the years 2000-2010

Figure 12: Top 7 world producers of fibre crops, 2010

State	Total production (mill. tons)[195]	p.a. growth %[196]
India	7,588	8,0
China	6,329	2,4
The USA	3,942	0,5
Pakistan	1,870	0,2
Brazil	1,316	3,2
Uzbekistan	1,156	1,5
Bangladesh	0,943	1,2

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

Figure 13: Top 7 world producers of manufactured sugar, 2010

State	Total production (mill.tons)[197]	p.a. growth %[198]
France	31,875	0,2
The USA	29,061	-1,1
Germany	23,858	-1,5
Russian Federation	22,256	4,7
Turkey	17,942	-0,5
Ukraine	13,749	0,4
Poland	9,973	-2,7

Source: FAO Statistical Yearbook, “World Food and Agriculture“, 2013 [on-line]

[195] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 170 [on-line]
[196] Per annum, total fibre crop production growth during the years 2000-2010
[197] Data from the years 2010-2011, FAO Statistical Yearbook, 2013, pg. 166 [on-line]
[198] Per annum, total manufactured sugar production growth during the years 2000-2010

6 PROPOSALS AND COMMENTS

Current high food prices are contributing to global famine. However, in developed regions, the problem of undernourishment is no longer a crucial part of daily life. Shopping has became a phenomenon, among some ranks of fanatics, even a certain form of entertainment. Meanwhile, hunger has existed throughout the history of developing countries. In some countries, there is simply a lack of food while, in others, the democratic regime is not functioning, so food aid is distributed unequally.

What I regard as the greatest constraints to the development of education are the costs of an increasing famine.[199] An adequate educational system for all inhabitants could prevent the disproportionate population growth compared to the food production. What nobody perceives are the roots of this chain reaction. The effects of poor income in developing countries lead to insecurity in the lives of older citizens. In an incorretly functoning system, their only guarantee in old age, is that their offspring will take, care of them. This invokes higher taxation on the greater population. So an increasing population inflicts poverty and poverty inflicts an increase in the number of humans. Would this ever happen if there was a higher educational index?[200] One-shot aid from developed countries to provide the assistance to developing regions is almost useless, without teaching the population certain necessary skills. This can lead to a decreased motivation to work, laziness and an addiction to foreign aid. If there was extensive education, citizens of these countries would gain the know-how to adequately make use their newly aquired skills[201]

A lack of food can cause many problems, such as diseases, migration, harming environmental degradation, political instability, fighting and social riots. Hungry people spin out of control and commit unhuman acts for their survival. Food waste could be the next relevant solution, if somebody would come up with an effective means of transporting this unused food as fast as possible to developing countries. As was previously mentioned, the world´s biggest producers are in the most cases the same players. Their exports are unequal, so developing countries make almost no profit. The problem is possibly not among the wholesaler chains, but lies deeper beneath the skin of distributers with their thoughtlessness and nescience. This could be the possible point precisely where the food problem begins.

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[199] Living under 1,25 USD per day – absolute poverty

[200] BALDWIN, Cheryl. *The 10 principles of food industry sustainability*. 224 pages, ISBN 9781118447734.

[201] *Human Rights and the Struggle Against Hunger: Laws, Institutions and Instruments in the Fight to Realize the Right to Adequate Food*, Flavio Luiz Schieck Valente, Ana Maria Suárez Franco, 2014 [on-line]

7 CONCLUSION

Every mistake we commit counts. In our world we overcome many mistakes. However, each failure, even the most insignificant one, advance our world forward. We never forget the experiences that is written on our minds. It can be currently said that every heart beat matters. Food is necessary to make this happen. Wherever you originate from, you can provide aid, either throught the process of Fair Trade or by rending assistence directly to those people in need.

On the basis of my examples, it is shown that the volume of food is more than sufficient to prevent this world from suffering hunger. Why is this not happening? Greed, anxiety and delicaies overcrowd the shop floors in developed regions. First of all, we must view what we have already produced and not how to increase production at the cost of harming the environment. Unconsumed food? Waste management must be improved. The best profit for every person on this planet is to utilise his own production as far as possible. Are we prospering through food products at their limits? One can say: „Who cares, I´m doing fine!“-, However, even a person from a developed region can one day suffer the pain of famine.

Developing countries have to stand on their own feet. Their production of agricultural goods represents one-third of the global production. Raw materials lack added value and are being sold as crude resources at far too low prices. Without government interest, these people can hardly do anything to counteract this. The most grievous act in developing regions is the conversion of indispensable commodities to biofuels. This battlefield, devoid of sufficient action, will be clashing their forces, rich in natural wealth, but naked in their defence, for a long time.

The war against hunger is a dificult and complex one to win, however it is one of the crucial conditions for survival that we have to face.

„When you see a 14-year-old boy who has never known what peace looks like for a day in his life, there's part of you as a human being that feels some degree, you can say, compassion for the fact that these boys have known war, famine, violence and death from the day they were born“[202]

[202] Amanda Lindhout. BrainyQuote.com, *Xplore Inc*, 2015, [cit. 2015-04-14] [on-line]

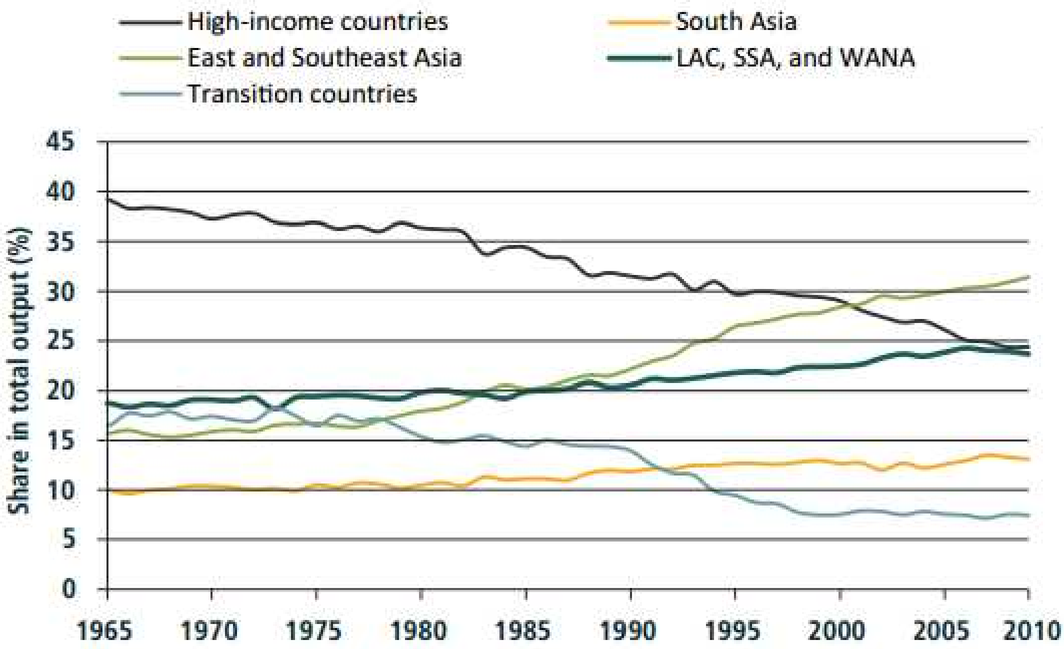
8 LIST OF ABBREVIATIONS

- ABA - Australian Beef Association
- ABC - Carbon emission programme
- ADR - German Cattle Breeder´s Federation
- AFFCO - leading beef and lamb corporation in New Zealand
- AMIC - Australian Meat Industry Council
- AMPC - Australian Meat Processor Corporation
- ASEAN - Association of Southeast Asian Nations
- BSE - Bovine spongiform encephalopathy
- CCA - Coca-Cola Amatil
- DVFB - Vieh-und Fleischhandelsbund e.V.
- EU - European Union
- FAO - Food and Agriculture organisation
- GDP - Gross Domestic Product
- HDI - Human Development Index
- LAC - Latin america countries
- MIA - Meat Industry Association
- OECD - Organization for Economic Cooperation and Development
- OSE - Observatory of Economic complexity
- SICFA - Distributer of palm oil, sugar cane and rubber in Ivory Coast
- SOLIBRA - Societe de Limonaderies et Brasseries d´Afrique
- SUCSO - Societe d´Usinage et de Conditionnement du Sud Quest
- UN - United Nations
- USA - the United States of America
- USD - Americal dollar exchange
- ZDS - Germany Pig Association

9 LIST OF FIGURES

10 ANNEXES

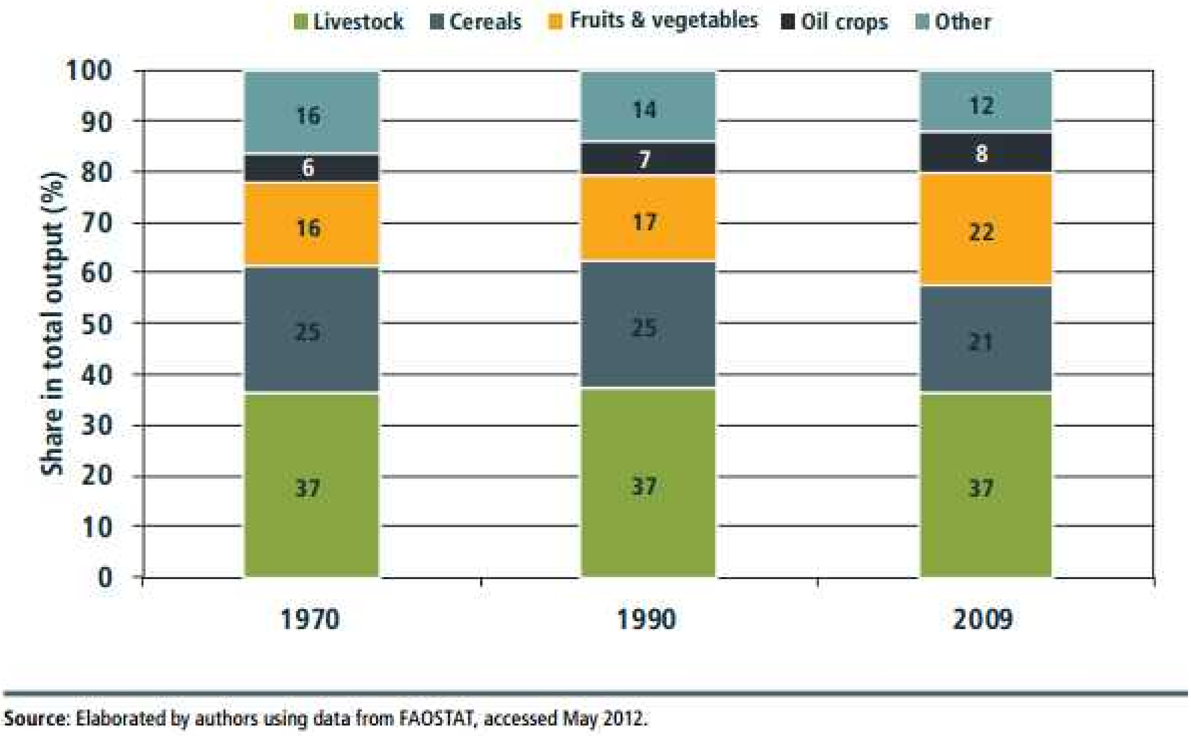
Annex I: Share of total agriculture production, by regions and groups of countries



Source: Elaborated by authors using data from FAOSTAT, accessed May 2012.
Notes: LAC = Latin America and the Caribbean; SSA = Africa south of the Sahara; WANA = West Asia and North Africa.

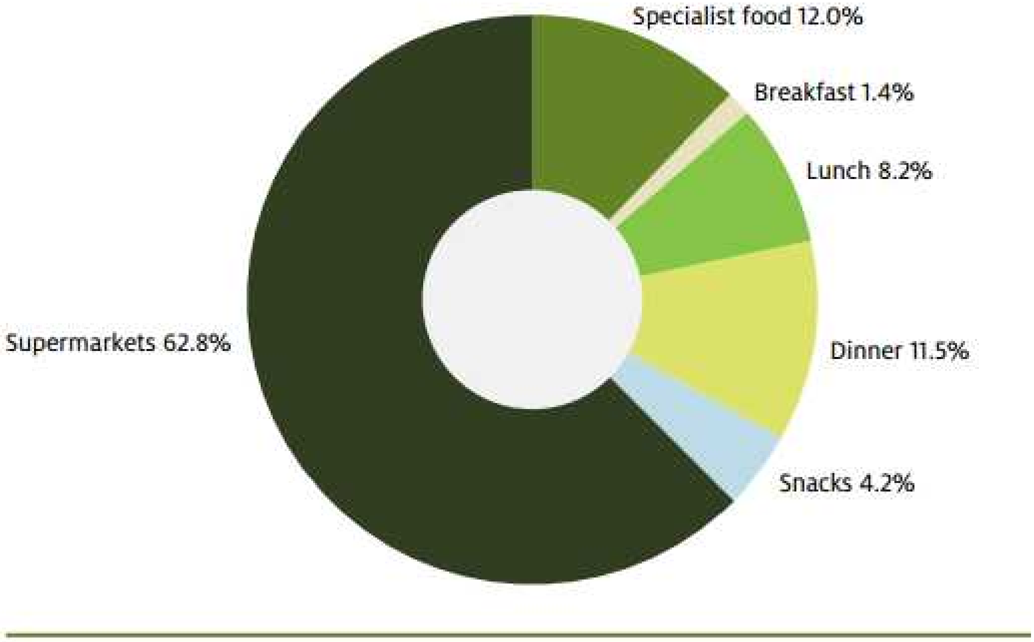
Source: *Global Food policy report*, International Food Policy Research Institute, 2012 [on-line]

Annex II: Composition of total global agricultural output in the world



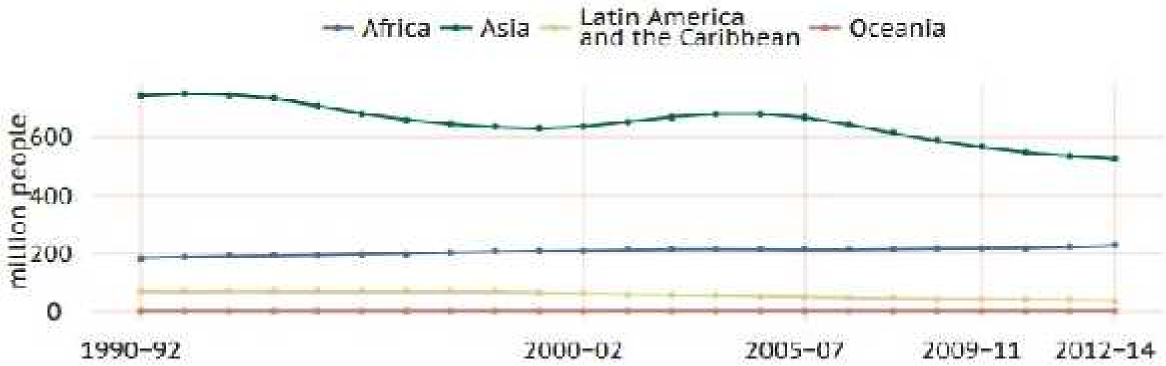
Source: *Global Food policy report*, International Food Policy Research Institute, 2012 [on-line]

Annex III: Share of household spending in Australia within the year to June 2011, typically for the developed countries



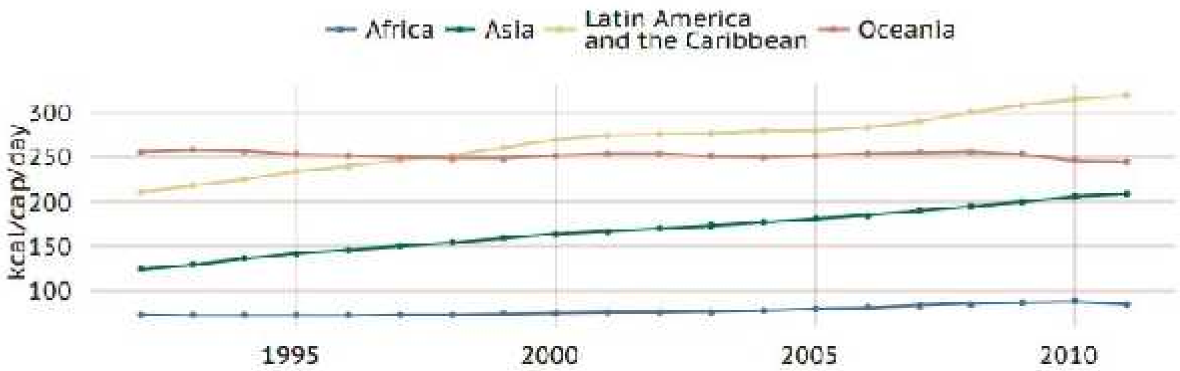
Source*: An analysis of the Australian food supply chain*, Australian Government – Department of Agriculture, Fisheries and Forestry, 2012 [on-line]

Annex IV: Number of people undernourished from 1990 till 2012 (developing regions)



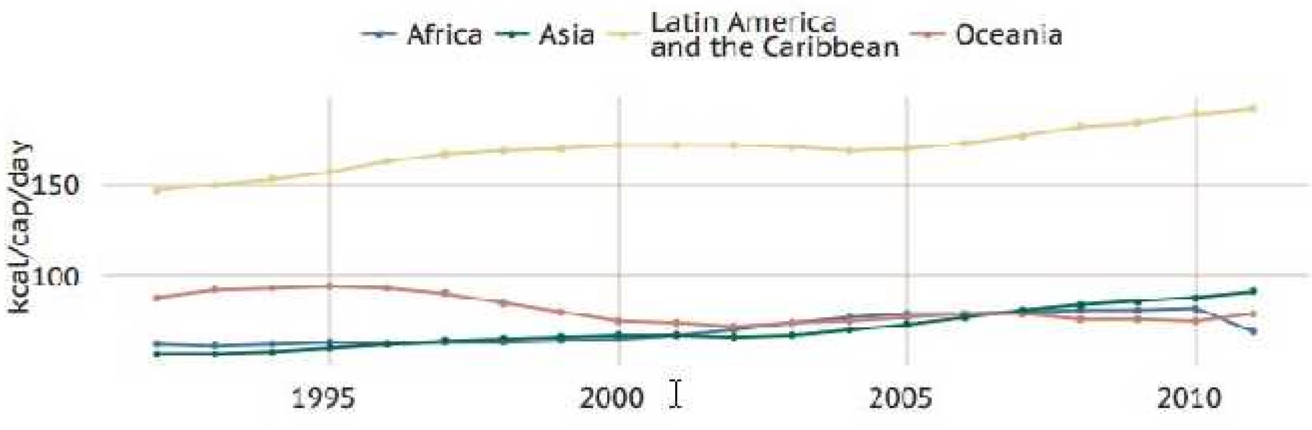
Source*: Food and Nutritions in numbers*, FAO, 2014 [on-line]

Annex V: Food supply of meat from 1990 till 2011 (developing regions)



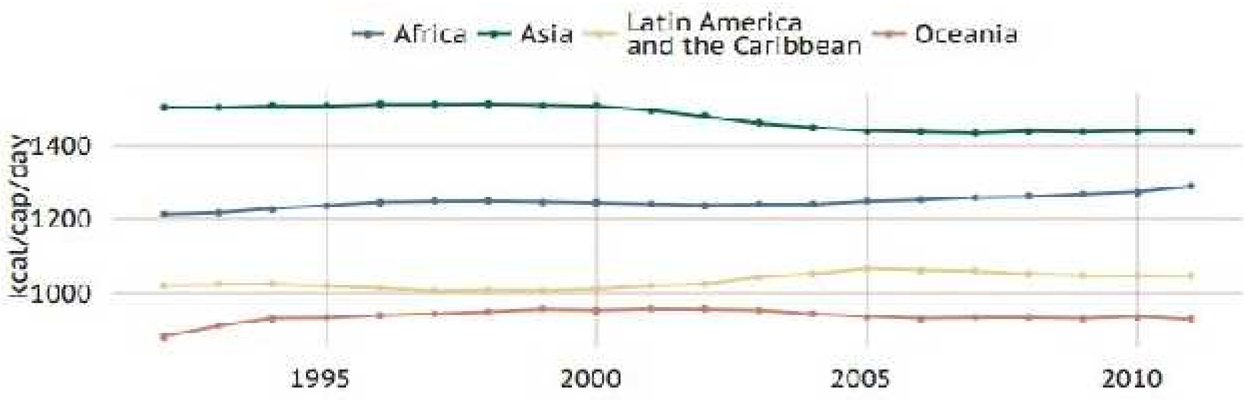
Source*: Food and Nutritions in numbers*, FAO, 2014 [on-line]

Annex VI: Food supply of milk from 1990 till 2011 (developing regions)



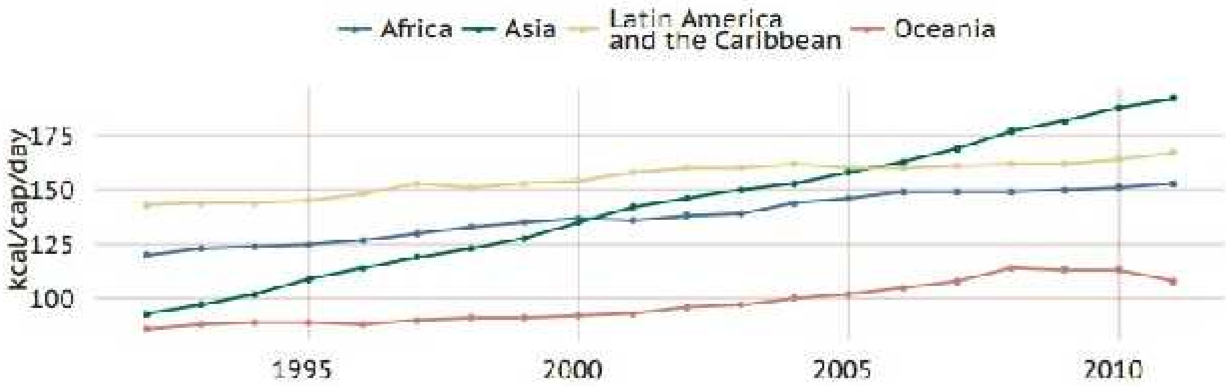
Source*: Food and Nutritions in numbers*, FAO, 2014 [on-line]

Annex VII: Food supply of cereals from 1990 till 2011



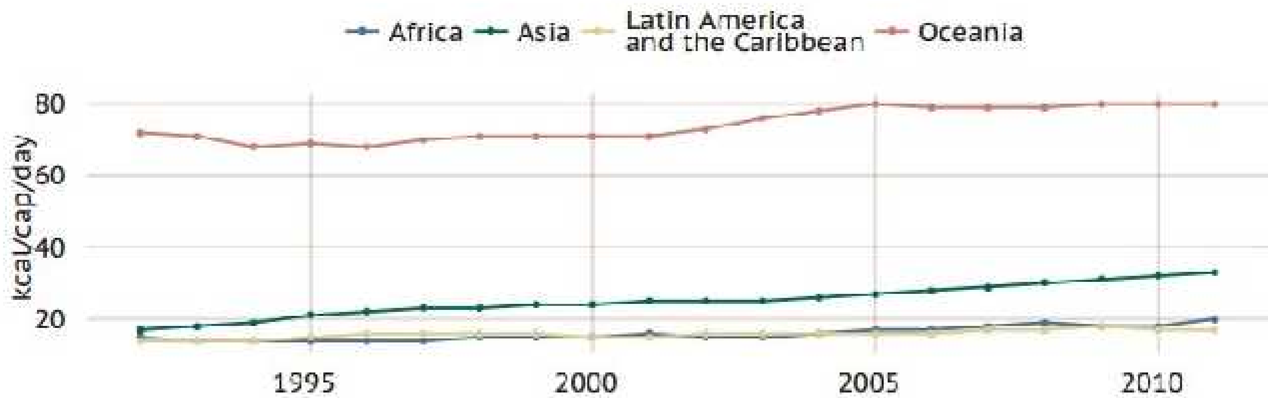
Source*: Food and Nutritions in numbers*, FAO, 2014 [on-line]

Annex VIII: The supply of fruit and vegetables from 1990 till 2012



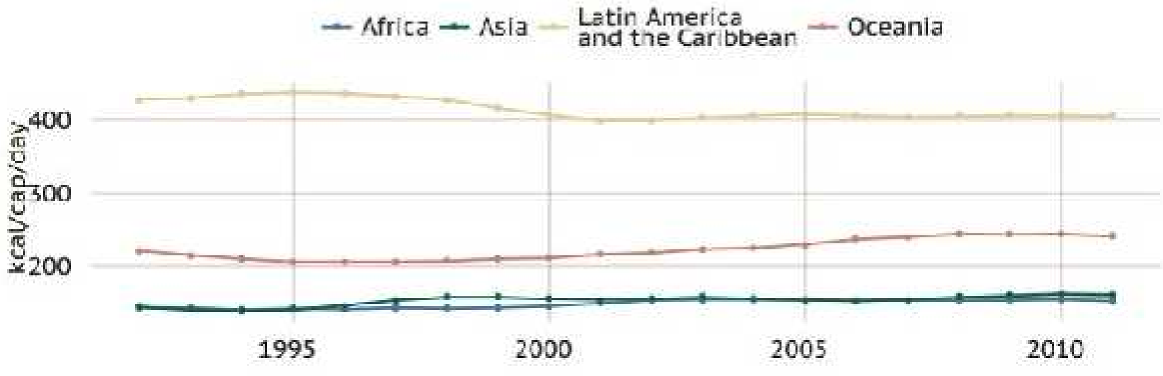
Source*: Food and Nutritions in numbers*, FAO, 2014 [on-line]

Annex IX: Food supply of fish from 1990 till 1992



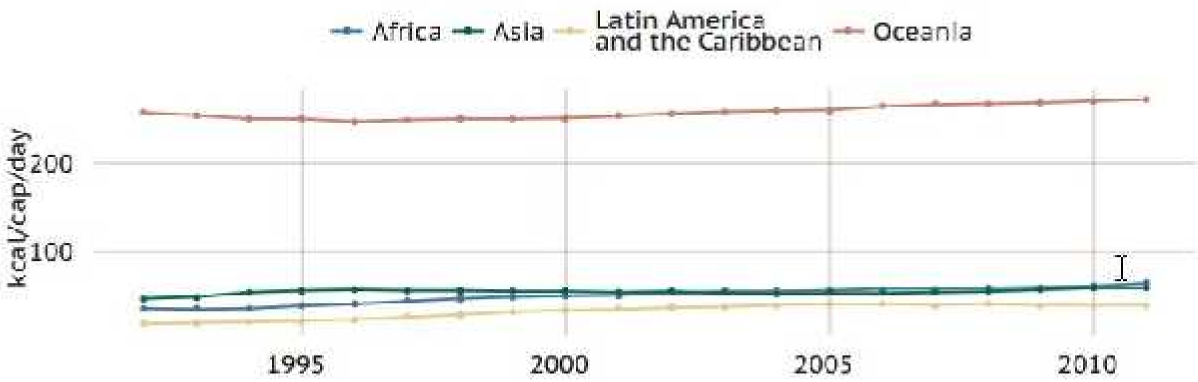
Source*: Food and Nutritions in numbers*, FAO, 2014 [on-line]

Annex X: Food supply of sugar and sweeteners from 1990 till 2011



Source*: Food and Nutritions in numbers*, FAO, 2014 [on-line]

Annex XI: Food supply of oilcrops from 1990 till 2011



Source*: Food and Nutritions in numbers*, FAO, 2014 [on-line]

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