

ALIMENTARY SAFETY: DIFFERENCIES BETWEEN DEVELOPED AND DEVELOPING COUNTRIES

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Between developed and developing countries there are big differences regarding medium alimentary consumption per capita. Alimentary consumption in developed countries is balanced and stable. In the European Union consumption structure reflects a healthy and balanced alimentation. In the developing countries the alimentary consumption reveals deficiencies, mostly on the quality and quantity levels.

Key words: *alimentary safety, food products, globalization, alimentary consumption, population*

Regarding the concept of alimentary safety, the technical literature called for a multitude of definitions, each of them having a certain value of knowledge. These definitions were developed at an individual, familial, regional, national and global level. From a scientific point of view, at an international level, the concept of alimentary safety is defined as being ***“the universal and permanent access to the necessary food for an active and healthy life.”*** [6]

The global issue of alimentation captured the attention of the international scientific community, because it influences the present situation, as well as the evolution of many other economic, social and political issues of our century. Despite all the past warning signals, the present status of the global alimentation and its immediate perspectives are not reassuring at all. During the last decades, the alimentary issue has become more stringent and acquired new features and dimensions from a qualitative point of view. ***Being at the beginning a national or regional issue, it has turned into a global issue now.*** [3]

Given the present circumstances, the big and growing global differences act like a vacuum, the only difference being that in the complex systems, like the social ones, the consequences are less predictable than in the case of the simple systems. Therefore, it is in the interest of the whole mankind to act and think rapidly.

In order to deal with this situation, the most important step is now to understand where we are, where we are going to and where is mankind going if the actual state of facts continues.

One can not deal with global issues individually, because they depend on each other and are amplifying themselves, becoming a real threat for human condition. Therefore, it is mandatory to analyze the validity of our ways to develop, of our ways to manage the world. Confronting the unprecedented demographic rise and present technological evolution, human system will become so immense and complicated that ***the holistic approach and evaluation*** will be indispensable.

Another problem is that of the imbalance we cause to ecosystem, by its devastation and pollution, by intensifying pasturing and fishing, by clearing the woods and overexploit the soil. Soil resources are running short exactly when world population and its needs are exponentially growing. Environment issues are to deal with at once. Therefore, it is necessary that the relationship between technical man and nature to be reconsidered with an unparalleled maturity and responsibility.

Solving the alimentary problem and ending starvation require precise and detailed projects, foundation for an adequate alimentary policy. Such projects can be solved only on after a detailed analysis of the alimentary production functions, consumption functions and cultural practices taking into consideration the alimentation of urban and rural families having different levels of income and also the way agriculture production influences pay balance and inflation's control.

In order to decently provide with food a population of 6 billion people, global agricultural production has to be carried out mainly in the developing countries, where alimentary needs will double in the next years.

Through constant efforts and an efficient utilization of the available natural and human resources, alimentary and agricultural production of the developing countries can be at least doubled. This aspect will

not do to end starvation and malnutrition. It is necessary a better distribution of the product per capita, especially of the income of marginal, disadvantaged segments of society.

Having the starting point the desperate situation of alimentation in some regions in the world, a situation that will worsen if measures of increasing alimentary production will not be taken, some participants at the Conference in Rome supported the idea of migration of these people from countries lacking of food to those countries with excess of it. They also discussed the idea that people of the third world can ensure their alimentation. From a technical point of view, this is possible. The essential condition is to provide an adequate economic and alimentary policy. But if the present tendencies of economic policy continue, this will not happen.

Any delay of an efficient approach of alimentary issue will make it more difficult to be solved. Because of the persistence and even growing of poverty, the world pays a great and unacceptable price in the terms of economy, resources, also social and psychological. These costs create a major obstacle for a balanced and harmonious society on the globe. From a historical point of view, global poverty of the last decades represents an anachronism whose eradication is a sine qua non for progress. It is for the benefit of the global community to focus on the reduction of global poverty costs. From this perspective, the cost to eradicate global poverty is much smaller than the cost of doing nothing.

We have to mention that the notion of alimentary safety is mostly based on the wrong principle that gives the developed countries the responsibility to provide food products for the developing countries, without taking into consideration the role of the developing countries in solving the problem. The developing countries proved that, by growing their reciprocal alimentary commerce six times, from 2.4 billion dollars in 1970, to 15.3 billion dollars in 1980 [4]. During this period, the total trade with agricultural products of the developing countries has grown with a similar rate, from 3.4 billion dollars to 21.5 billion dollars in 1980. These data powerfully certify that world alimentary strategy can not be conceived without taking into consideration the decisive factor that the deloping countries will have to play. [3].

The growing number of the deloping countries taking part to solving alimentary issues, a problem that affects more than 6 billion people since 2000, implies careful examination of the financial resources impact over alimentary production.

The main issue concerning the food providing for the world population is if this can be done without destroying the ecological base of agriculture during this process. The model of intensive agriculture has certain limits and the research workers consider the ecological agriculture a solution for the future both in the developed and developing countries.

The studies carried out by FAO certify that we have an unbalanced alimentary regime in the world, opposed to the physiological needs of the human body. The quantitative and qualitative differences in the world alimentation show that where the food is insufficient, it is also lacking the necessary qualitative structure.

Worldwide, the energetic availabilities per capita have grown in 21 years (1990-1992/1969-1971) from 2440 kcal to 2720 kcal (an annual growth of 0,5% in two decades). Two tendencies manifested during this period [5]:

- Slowing down the growing rhythm of the energetic food products availabilities worldwide, in the poor countries especially;
- Diminishing of the energetic alimentary availabilities in the big countries of the world and a slow growing rhythm in the developed countries overall.

Growing of the worldwide energetic availabilities is slower during the past two decades.

Table no 1. Evolution of energetic availabilities per capita -Calories-

	1969-1971	1979-1981	1990-1992	2002-2005
Developed countries	3190	3280	3350	3420
Industrialized countries	3120	3220	3410	3470
Transition economies	3330	3400	3230	3350

Developing countries	2140	2330	2520	2800
Latin America and Caribbean	2510	2720	2740	3050
Saharan Africa	2140	2080	2040	2400
The Near East and Northern Africa	2380	2850	2960	3120
East and South-West Asia	2060	2370	2680	2980
South Asia	2060	2070	2290	2760
Economical groups of developing countries				
Less developed countries	2060	2040	2040	2330
Low income and low standard of living countries	2060	2230	2450	2780
Low income countries	2060	2210	2430	2760
Medium income countries	2360	2670	2760	2980
World-wide	2440	2580	2720	3020

Source: The sixth world food survey, Roma 1996; fao.org 2006

The evolution of energetic availabilities per capita, period 1979/81 compared to 1969/71 shows a 0.3% growth in the developed countries, during the period 1990/1992 compared to 1979/81 the growth is of only 0.2%. The period 2002/2005 shows a slower growth, in the developing countries it was of 0.9%, respectively 0.7%, reflecting a slower growth of energetic alimentary availabilities per capita in these countries [5].

World protean availabilities per capita, on regions and groups of countries, clearly show that the nutritional state of population is strongly connected with the social-economical growth.

The level of protean availabilities per capita is inferior to the physiological needs worldwide, consequence of the critical alimentary situation of some developing countries. As to animal protean availabilities per capita, their level is of 9-10 g in the less developed countries, compared to 59 g animal protean per day in the developed countries [5] (see Table no2).

In the developed regions of the world lives 24% of the global population, consuming 71.1% of the energetic availabilities, 66% of the protean availabilities and 57% of the lipid availabilities.

In the developing regions of the world lives 76% of the global population, consuming 29% of the energetic availabilities, 34% of the protean availabilities and 43% of the lipid availabilities.

The differences between developed and developing countries are more obvious if we follow the structure of alimentary energetic availabilities. These show that in the developing countries the availability of products having low nutritional value is double compared to those in the developed countries, resulting in deficient qualitative structure that can not be compensated by the excessive cereal consumption [5].

Table no 2 Availabilities of total and of animal origin proteins based on regions and groups of countries

	Total proteins(gr/capita/day)			Animal origin proteins(gr/capita/day)		
	1979-81	1990-92	2003-05	1979-81	1990-92	2003-05
Developed countries	95	99	102	51	56	59
Industrialized countries	93	97	103	54	58	63
Economies in transition	100	103	100	44	51	51
Developing countries	53	57	62	10	12	15
Latin America and Caribbean	65	68	68	25	29	29
Saharan Africa	54	51	49	11	12	10
Near East and Northern	66	77	80	14	18	18

Africa						
East and South East Asia	49	56	65	7	9	16
South Asia	51	50	55	7	7	10
Economical groups of developing countries						
Less developed countries	52	51	50	10	10	9
Low income countries with a deficit in standard living	50	53	59	8	9	12
Low income countries	51	53	59	7	8	12
Medium income countries	59	66	69	18	21	23
World-wide	65	68	71	22	23	25

Source: The sixth world food survey, Roma 1996, fao.org 2006

Table no. 3 Share of main food product groups from the total amount of alimentary energetic availabilities during 2003-2005 on an international level and groups of countries

Groups of products and aliments	World-wide	Developed and transitional countries	Developing countries
Total vegetal products, out of which	83,4	70,9	89,7
Cereals	51,2	30,4	59,6
Fats	8,2	11,1	7,0
Roots and tubers	5,0	3,8	5,4
Fruits and vegetables	4,3	4,9	4,8
Sugar	8,8	12,8	7,2
Alcoholic drinks	2,4	4,9	1,4
Other products	0,4	0,6	0,3
Total animal products, aut of which	15,7	29,1	10,3
Meat	7,4	12,8	5,2
Milk	4,3	8,6	2,6
Fats	2,0	4,4	1,1
Eggs	0,9	-	-
Fish	1,0	1,3	0,7

Source: The sixth world food survey, Roma 1996, fao.org 2006

Specialists in alimentation and specialized international organizations recommend remodeling of alimentary consumption and encouraging a healthy nutrition, based on the accumulations of each country and their capitalization as a cultural nutritional thesaurus. It is considered that alimentary education of the population and improving social insurance systems can contribute to limit starvation.

In the developed and developing countries there are great discrepancies regarding medium consumption per capita, but these are mostly of structural and qualitative order. Alimentary consumption of the developed countries is balanced and stable. Inside the European Union the consumption structure reflects a healthy and balanced alimentation.

Milk and lacteous products are the most important components of alimentary share in EU, followed by vegetables, fruits, meat etc. If we cumulate meat and fish we have 108 kg/capita, milk and lacteous products 132 kg/capita, eggs 13 kg/capita, resulting in a very high protean consumption. The sugar consumption is also high (33 kg/capita).

In the developing countries there is a significant underfed population, whose energetic consumption per capita is way under the minimal levels. [2]

Table no 4 Average energetic consumption of underfed population in comparison with the minimum and medium needs per capita (kcal/capita/day)

	Average energetic consumption per capita			Minimal energetic needs per capita			Average energetic needs per capita		
	1979-81	1990-92	2003-05	1979-81	1990-92	2003-2005	1979-81	1990-92	2003-05
Saharan Africa	1490	1480	1970	1810	1810	1810	2110	2100	2100
Near East and Northern Africa	1570	1630	1640	1830	1840	1840	2130	2150	2150
East and South East Asia	1520	1610	1660	1820	1870	1880	2130	2200	2220
Latin America and Caribbean	1610	1650	1660	1830	1850	1870	2140	2170	2200
Developing regions	1530	1580	1610	1810	1830	1840	2110	2150	2170

Source: The sixth world food survey, Roma 1966, fao.org 2006

During a 20 years period, energetic consumption of the underfed population did not significantly improved in the poorer countries and regions of the world.

If we compare the qualitative structure of consumption in the poor countries to that of European Union and North America, there is a major gap and the perspectives are not too optimistic. In the poor regions and zones, dominant in the average consumption per capita are cereals (224 kg cereals/capita in Northern Africa compared to 118 kg/capita in EU).

Table no 5. Average cereal consumption on different regions and countries worldwide Period 1993-1995-2005

Consumption per capita		
	1993-1995	2005
Developed countries	118	119
USA	98	100
EU	112	113
Transition countries	153	159
Romania	175	220
Polonia	175	173
Bulgaria	136	114

Source: The sixth world food survey, Roma 1996, FAO.org 2006

In Romania and other transition countries, population consumption has diminished during the past years. According to statistic bulletins (CNS), in 2005 the cereal consumption per capita was of 218.33 kg, potato consumption 89.75 kg, fruits 46.07 kg, vegetables 137.32 kg, meat 42.27 kg, sugar 22.73 kg, oil 9.8 liters. The average daily consumption, expressed in calories, was of 2872 kcal/capita in 1994, its level and structure expressing a significant gap compared with the average in EU. [1]

All above mentioned bring on the conclusion that, despite some growth in production at some alimentary products, the global alimentary condition could not be classified as satisfying (with the exception of some developed countries), especially if we take into consideration the level of satisfying developing countries necessities, especially the poor ones (countries from Africa – the continent most affected by starvation and underfeeding – and some countries from Asia). This conclusion is of even greater importance if we deeply analyze the offer and consumption of different social strata of these countries. It is well known that the richest people from the developing countries stand for only 10% of the total population, but hold over 40% of the total income. In the meantime, the income of the people from the poorer strata is hold by 1/5 of the population, the most critical situation being in the rural regions.

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