

**FIAT PANIS! LET THERE BE (ENOUGH) BREAD!
THOUGHTS ON THE PROBLEMS OF WORLD'S FOOD SUPPLY IN
THE 21ST CENTURY**

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ABSTRACT

In the last few days those who are interested in the real problems regarding our earth could hear from the news that the food shortage is growing all over the world, which leads to an increased tense or even to a „revolt”. What is all about? It is about that now, at the beginning of the 21st century the problems of world's food supply are added together and are growing worse because two other global problems have joined to the previous ones: the climatic changes and the energy crisis. I think that these new troubles cannot be understood well without mentioning the antecedents.

1. THE ANTECEDENTS

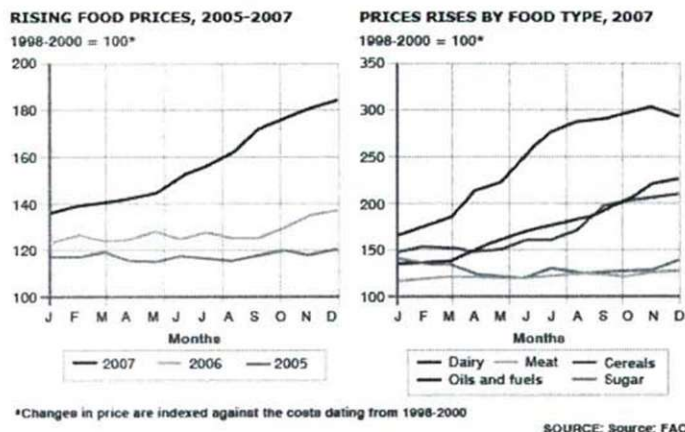
The Food and Agriculture Organization of the United Nations (FAO) has been regarding the appeasing of the problem of world's food supply one of its most important tasks since its foundation in 1945. The FAO Charter stabilizes the intentions of the founders, the mission of the Organization. According to which the founding states, together and individually, guarantee that they do everything to improve nutrition, to raise the living standards, to improve the efficiency of production and distribution of food, to better living conditions of rural population.

A lot of scientists and professionals work on these aims in their own countries and abroad on behalf of FAO. Since 1968 the world's scientists has been calling the attention to global problems, among them the vital topic is the world's food supply, first in the Roma Club, then in different analyses, too. Besides, there are more optimal predictions which find possible that agriculture can be taught to the population of starving countries. Others thought that the size of arable lands would be enough to provide food for even 6 thousand million people. Although these world models ignored the overpopulation of developing countries, nobody could predict the worldwide shortage of power resource, caused by the quick development of BRIC-countries, which directly affects the world's food supply – due to the lack of energy carriers and the energy-oriented food production.

The food shortage has been growing worse since the colonies fell to pieces. After the colonizing powers had been forced to withdraw, in several free countries the rival powers induced political instability by trying to seize and maintain the power with guns. In countries like this (mainly in Africa), for decades it has not been the agricultural development which stands in the focus of politics, what is more the food aid collected by FAO in developed countries lands on the black market and are exchanged for guns. Especially in Africa the problems are doubled with the extreme drought which carries further consequences: price increase in the international market (Figure 1 and 2), migration and riots locally.

2. PRESENT SITUATION

Price rise caused riots in several developing countries, for example in Egypt, Bangladesh and Haiti. In Zambia the country's food reserves had become exhausted by July-August. This year there is a 630 thousand tons shortage of maize which is the main nutriment there. (In the last economic year floods and then drought reduced maize production from 700 thousand tons to 490 thousand tons.) In some, hardly approachable regions of the country more and more people are compelled to eat roots. Zimbabwe, at the beginning of May, declared a three-month-long state of emergency to alleviate the situation of its 600 thousand citizens threatened by starvation. There even the political crisis makes the supply organization more difficult. It was a day before the warning of Zambia that the UN published its warning according to which soon 10 million people in four African countries –Malawi, Zimbabwe, Lesotho and Swaziland- would be threatened by starvation to death if they did not get an urgent international aid. The food-aid programme (WFP) of the UN reports that this region should import almost 4 million tons of food in the following year to meet all the demands of its population.



Figures 1, 2.: Data about the changes of food prices between 2005 and 2007. 1998 – 2000= 100%

And it is not everything. As FWP estimates now about 6,5 million people are starving in North-Korea with population of 23 million, but this number may increase without international help. In 2008 the shortage will double comparing to the previous year. According to the World Bank's report altogether 862 million people were starving between 2002 and 2004, 830 million of which lived in developing countries.

3. FOOD SHORTAGE IS THE QUESTION OF SECURITY, TOO

Wars can be evoked by the race for accessible food. As the supply is getting more and more reduced and as prices are increasing in the long run, so they together will result in serious consequences on security policy. Starvation can lead to riots and civil wars. In the international relations the race for food supply and migration can increase the tense, and in extreme situations it causes conflicts and wars. For example when the price of the rice went up, it led to social problems in several places, in Darfur (Sudan) and in Bangladesh

people in large groups fled across the frontiers looking for water and food. The increasing food prices are threatening millions of people with poverty. In certain parts of Haiti, Egypt, the Philippines and Western Africa the authorities had to face riots after the price of rice, wheat and soya had gone up.

The World Bank has announced that it implements the state of crisis to find solution for bringing the food price under control all over the world. Robert Zoellick, the President of the World Bank, warned us that the constantly increasing food prices affect about 100 million people in developing countries who are sinking into an even more desperate situation.

The question is if the developed countries of the world will be able to help countries which suffer from the lasting food shortage. We must admit that while hundreds of million people are in grave need and hundreds of thousand children swell and then die because of the lack of the everyday food, in other countries some ten million people are fighting with health problems because they are overfed. During my studies I often have to face data which show that in the USA 30% of the population, in Spain 13,1% and in Germany 12,9% is corpulent, but the rate of the overweight population, which cannot be considered corpulent, is even bigger. There are more and more overweight people also in Hungary and the future of fat children is especially alarming.

Knowing all these, can we expect that this not-real (because not being on the market) excess of food can be redistributed to help countries with food shortage? I think it is not likely. Firstly, because to realize that corpulency is not only the question of health or aesthetics but of ethics is a very slow process and renunciation the excess will hardly result redistributable funds. Secondly, because the climatic change, which is the other important subject of my essay, means such an unpredictable threaten which can reduce even the food supply of the developed countries. Finally, because the energy-oriented use of foods reduces the human-oriented use in the balance of products.

4. WHAT DO WE MEAN BY CLIMATIC CHANGE?

IT is a long-lasting change of weather factors which affects the production results of foods. The „climatic change” is often identified with the lasting global warming. According to model-calculations the global warming means that the average temperature a year will increase with 3-3,4 °C within 70-75 years;

- it will raise the sea levels;
- the water will flood lands and
- the amount of arable lands will decrease;
- because of the higher temperature the evaporation will grow and the soil will get dry more quickly;
- what is more use of water for agricultural purposes will be more limited than now because
- the higher temperature will result in an increased community and industrial use; and it may restrict the agricultural use of water.

Some further disadvantageous agrotechnical consequences can be expected in the case of agricultural production. For example:

- a) Warming will affect favourably the reproduction, hibernation and general spreading of plant pests, and the protection against them will mean a factor which increase the costs;
- b) Species of cultivated plants which cannot adjust to the new climatic conditions will be eliminated from production. To substitute them professionals should start in time to improve new species which endure the new environmental conditions well.
- c) On continental level the use of fields can significantly change according to the climatic change. As Harnos, Zsolt calculates, a global rise in temperature with 1°C will push the cultivation zones with 250 km towards the poles. It means for Hungary, as an example, that only a rise in temperature with 2°C completely changes the climatic conditions, and the new climate of Mediterranean type will make a wholly different use of fields possible.

The analyses allow us to conclude that the shift of agro-ecological zones will affect the agriculture of the developed countries less harmfully, what is more, with rational water usage, it can result positively. However, the agricultural production in the developing countries might as well decrease with 10 percent which will sharpen the grave supply problems. Finally, in the tropical and subtropical regions, especially in the Sahel-zone, the situation will be critical, even catastrophic.

5. THE SLOW WARMING OF THE CLIMATE HAS BEEN EXPERIENCED FOR YEARS

The climatic change has quickened the process of the food shortage because the areas which were normally sources of food have undergone one by one an extreme, climatic change of droughts. It led to the situation that in the two most populated BRIC-countries, in India and China, the need for foods had increased. Furthermore, while the food-production per person decreased globally, the expenses of production rapidly increased. At present the demand for the „bio-fuel” extremely quickly increases because of the high prices of the old energy sources. It means that huge agricultural areas, which otherwise belong to the global food supplying system, will be used for this new demand. Professionals all over the world are warning people that these events together will lead to very dangerous, increasing crises in the future.

Supporters and opponents of the fuel production for energy have made lots of strong arguments for and against. I tried to orientate myself among these arguments so that firstly I put the present amount of the global food shortage then the quantitative data of energy-aimed food production next to each other.

According to Jacques Diouf, the director general of FAO, the world's food production should be doubled until 2050. It is needed to provide the global population of potentially 9 thousand million with food. In the meantime the donor countries have to expend 30 thousand million dollars a year on food aids to help population of permanently starving countries and to solve the crisis caused by the extreme price at present. The director general of FAO told an economic paper in London that „people are dying of the food crisis, governments are falling because of it, and a lot of ambitious democracies can „tilt to any direction” depending on the satisfaction or dissatisfaction of their population.”

The need for a quick food-production-increase has been indicated by independent analyzing institutions, too. According to the overall analysis published by the British Royal Institution of Foreign Affairs – or as mostly known, Chatman House- the increasing demand for food from the part of the wealthier joining economies and the production of the bio-fuel forced up the global food-price by 83 per cent in the last three years, and „nearly revolutionary” steps are needed to balance the food-supply again. The analysis quoted the estimation of World Bank according to which the food production has to be increased by 50 per cent until 2030 – and the meat-production by 85%- to meet the predicted demands.

6. THE SHORTAGE OF FOOD LED TO PRICE RISE

As FAO says in the last two years the food prices increased by 71 per cent globally, on average. This increase led to riots in several developing countries, among them are Egypt and Bangladesh. London presses report that there is a certain level of shortage of some basic foods in such developed countries like Great-Britain and the USA, too. Brazil, which produces the most rice, stopped the rice export, so in the USA –but in certain British supermarkets, too- the rice purchase had to be restricted because of the shortage.

Though the global food shortage „did not hit the mark” in Hungary, certain signs could be felt in 2007 even here. According to Gráf József minister, who is the most competent person in this case, the Hungarian food prices went up by their tenth on average, but there are several goods for which we have to pay much more than a year ago. (For comparison it is worth taking into consideration that the food prices of EU-15 increase by 1,5-2,0 % a year, through decades.) According to the minister „ last year a litre of vegetable oil cost only 250 Fts, now it is doubled. Milk and bread cost by their fifth more than in 2007, and cheese went up by its third. In spite of these facts we will not have shortage of food, and this year the food price will increase by 10 % at most.”

The Real Reason for the Deepening of Food Crisis is the Spread of Bio-Fuel

Before the congress of G8s, organized in the island of Hokkaido between 7 and 9 July, a British daily paper (The Guardian) quoted a World Bank's report – not published that time - according to which the rape and maize-production rate devoted to bio-fuel production evoked the worldwide shortage of food. It was refused by the official American positions blaming the unfavourable weather for the food shortage and the price increase. According to the World Bank, and in opposition of the arguments of the United States, the rise of the food price by 75% is not the result of the unfavourable weather conditions. As the official American standpoint says the bio-fuel production obtained from cultivated plants is responsible for only less than three per cent of the food price increase.

According to the World Bank's report the bio-fuel production destabilizes the food market in three different ways. The first one is that it shifts the use of grain from feeding to the fuel production. Nowadays 30 % of the American maize production is directed to make ethanol, while in the countries of the EU nearly half of the vegetable oil is used to make bio-diesel. The second one is that it motivates the agricultural producers to grow plants suitable to make bio-fuel from them, and the third way is that a financial speculation has started on the grain market.

The Hungarian situation supports the latter standpoint rather than the official American explanation. The sown area for human-purposes has been reduced even in Hungary, and instead of it the production of the basic materials for bio-ethanol and bio-diesel (rape and maize) have come to the front. Its signs are shown as, according to the KSH database, the production area of rape has increased by 46% recently, so the last year's result was 490 thousand tons on 219 thousand ha, which means an increase of 54%. In our country in 2007 grain was grown in 2,8 million ha of fields which is smaller by 5% than the previous year's rate. The production result fell strikingly last year, the result was by 9% less from wheat, while by 50% less from maize. It is expected that production of basic materials for bio-ethanol will significantly drive the grain production for human purposes out which will result in the increase of food price again.

The ones who follow the events of the food crisis with care and attention have to see that the great powers and the world organizations appear only after the spread of the problem to express their standpoints or to show the „only blissful” solution. It is only the FAO which has been working consistently according to the principles stabilized at the time of its establishment in 1945, though it is not always and not enough supported by the great powers. However, we should remember that the aims and methods of FAO are not adequate to solve problems which need a sudden operative intervention, like the present starvation in one part of the world and the waste of food reserves to produce energy in the other part.

The most terrible fact is that all the leaders of the world worked together to lead the world's population into this critical situation. They are responsible for doing nothing to stop the global climatic change and for hindering others to do something against it. They are responsible for allowing the use of chemicals which led to the pollution of drinking water all over the world. However, we have to face the even more desperate fact that we, too, are responsible for not living a sustainable, environment-conscious life. (Gál 2005)

7. WHAT CAN WE DO?

There is a question in this situation: what do our children inherit from us? I agree with what Al Gore said in one of his presentations: „We have to understand wholly what is really happening and **we have to develop our sensitivity to the urgency of the situation**, and we have to do all our best to improve it. We should not underestimate the little thing that you or me, we together can do for it either today or in the following days.” I think we should do something every day for the „ethical” food consumption or for lessening waste.

We - even here, in Hungary- can call upon politicians for fighting more persistently to stop those out-of-date old principles of the EU's common agricultural policy like for example the restriction of the agricultural production. I learnt, and it is also a fact that at least the half of the EU's market-controlling tools is destined to prevent excess formation in the market. Considering the food shortage in the world it is hard to understand that it is a real excess. It is a fact that this „excess” cannot be converted into food aid but it is unnecessary in case of the financial contribution from the developed countries. Hungary can contribute efficiently to solve this present problem of the world food supply if the EU does not hinder her to increase the agricultural production. „We should produce more, we have to do exactly the opposite of what the EU said, though we have been saying it for years”-said Gráf, József Minister of Agriculture and Rural Development. According to the minister

Hungary should produce by the third more for not having a shortage of food. Is it possible? My determined opinion is that yes, it is. Since there was a period (in the 1970's) in the agrarian history of Hungary when she belonged to the leading countries regarding the amount of wheat, maize, apple and green peas etc. production per person.

Besides, I consider education outstandingly important to develop the environmentally-friendly agricultural production, to teach the rational, healthy nutrition and ethical consumption, to reduce waste and to raise the interest toward the solidarity with those who are starving.

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