Topic Area B: Rethinking the global food economy

I. Definition of the problematic

Today’s highly globalized food economy faces the important rate of population growth, struck by the pursuit of higher living standard, limited agricultural production, food processing and distribution. Tremendous mismanagement affects every steps of the very long supply chain, from production to food waste, causing the impossibility to satisfy an enormous rate of the global populations.

The consequences of food mismanagement are reflected in the number of hunger-related deaths. Such number today is alarmingly high: the World Health Organization (WHO) estimates the yearly hunger-related death toll to be 8 million people, and the Food and Agriculture Organization (FAO) estimates such child deaths to reach 5 million. Some 20,000 persons per day die globally as a result of food insecurity, the majority of whom in Africa and Asia.¹

The MILMUN 2012 United Nations Economic and Social Council will address the issue of global food economy, aiming to find innovative solutions in order to totally rethink global food economy.

II. Various aspects of the issue

A brand new approach requires detailed analysis of the several elements and subjects involved in the process needed to rethink global food economy. First of all, the problems in the supply chain must be tackled: quality and quantity of food demand, production technologies and policies and finally the rates of food consumed and wasted. The whole chain should be organised in a sustainable way throughout every step. Secondly, special attention should be brought on the various consequences of global food economy, such as global security, poverty and civil conflict.

1.1. The supply chain

1.1.1. The first aspect of the supply chain is the demand.

World population is estimated to reach over 9 billion by 2050. The effects of such growth will be reflected both in the increase in demand and need of food. Each day 200,000 more people are added to the world food demand. The world’s human population has increased near fourfold in the past 100 years (UN population Division, 2007); precisely, it is projected to increase from 6.7 billion (2006) to 9.2 billion by 2050. It took only 12 years for the last billion to be added, a net increase of nearly 230,000 new people each day, who will need housing, food and other natural resources. The largest population increase is projected to occur in Asia, particularly in China, India and Southeast Asia, accounting for about 60% and more of the world’s population by 2050, followed by Central America, Central and Western Africa.

There is a striking difference between food demand in developing and developed countries both as to quantity and as to quality of food consumed. However, worldwide, food demand is shifting from such basic commodities as cereals and rice to products with a higher value added, namely meat, fish, fruit, vegetables, fats and oils. The increase in the demand for dairy and meat will lead to a surge in the demand for and prices of cereals in the decades to come, as well as in the demand for land. Meat production is particularly demanding in terms of energy, cereal and water. Today, nearly half of the world’s cereals are being used for animal feed. Food demand is also shifting from raw produce to processed and prepared products, and from home to out-of-home consumption. Consumer demand is increasingly defined in terms of convenience, quality and variety.

1.1.2. Production technologies and policies.

Many aspects influence food production. First of all, public policies, including fair price market policies, local governance and technologies.

Biodiversity is an essential resource for agriculture and food production, even though threatened by urbanization, deforestation, pollution and the conversion of wetlands. Agricultural modernization, changes in diets and population density have reduced increasingly agricultural biological diversity for food supplies. The gene pool in plant and animal genetic resources and in the natural ecosystems which breeders need as options for future selection is decreasing rapidly. The 90% of the animal protein consumed globally are provided by a dozen species of animals and half of plant-based calories in the human diet are

---

provided by just four crop species. The FAO expects that globally 90% (80%) of the growth in crop production will come from intensification, especially higher yields and increased cropping intensity. This would be in line with past trends, but represents a major challenge for future public and private research, including research for greater resilience of farming systems. All three natural resources required for sustainable and stable production growth, i.e. land, water and biodiversity, need decreased investment, effective regulation and incentives. The aim to be achieved should be to stop over-exploitation, degradation and pollution, promote efficiency gains and expand overall capacities as appropriate. Adequate regulation and incentives are also needed to provide the rural population engaging in ecosystem services with win-win solutions to improve the sustainability of ecosystems, mitigate climate change and improve rural incomes.  

In 1976, the FAO launched the Technical Cooperation Programme (TCP) that aims to provide FAO's technical expertise to its Member countries through targeted, short term, catalytic projects. These projects address technical problems in the field of agriculture, fisheries, forestry and rural livelihood. The TCP shall be used in all areas of action that pertain to FAO's mandate and competence and which are covered by the Organization’s Strategic Framework. TCP projects should produce tangible and immediate results in a cost-effective manner. They support improved food security and poverty alleviation, and should catalyse long-term development changes.

The suite of technological options should be as broad as possible, ranging from new plant varieties and animal breeds better adapted to changing conditions; to farming systems with improved water- and labour-saving technologies; reduction of food waste and losses; and natural resource management. Technological advances are particularly needed in the staple crop sector. Preference should be given to technologies promising win-win combinations of enhancing productivity and sustainability managing natural resources, for example conservation farming approaches based on no tillage.

1.1.3. Difference between food consumed and wasted

Too much food is lost or wasted throughout the supply chain, from initial agricultural production down to final household consumption. In medium- and high-income countries

---

5 http://www.fao.org/tc/tcp/
food is to a significant extent wasted at the consumption stage, meaning that it is discarded even if still suitable for human consumption. However, significant losses also occur early in the food supply chains in the industrialized regions. In low-income countries, on the other hand, food is lost mostly during the early and middle stages of the food supply chain; much less food is wasted at the consumer level. Overall, on a per-capita basis, much more food is wasted in the industrialized world than in developing countries. The FAO estimated that the per capita food waste by consumers in Europe and North-America is 95-115 kg/year, while this figure in Sub-Saharan Africa and South/Southeast Asia is only 6-11 kg/year. 6

Causes of such different figures are various. The causes of food losses and waste in such low-income countries are mainly connected to financial, managerial and technical limitations in harvesting techniques, storage and cooling facilities in difficult climatic conditions, infrastructure, packaging and marketing systems. Given that many smallholder farmers in developing countries live on the margins of food insecurity, a reduction in food losses would have an immediate and significant impact on their livelihoods. A possible solution to this problem would be to strengthen the food supply chains in developing countries by, inter alia, encouraging small farmers to organize and to diversify and upscale their production and marketing. Investments in infrastructure, transportation, food industries and packaging industries are also required. Both the public and private sectors have a role to play in achieving this.

The causes of food losses and waste in medium/high-income countries mainly relate to consumer behaviour as well as to a lack of coordination between different actors in the supply chain. Farmer-buyer sales agreements may contribute to quantities of farm crops being wasted. Food can be wasted due to quality standards, which reject food items not perfect in shape or appearance. At the consumer level, insufficient purchase planning and expiring ‘best-before-dates’ also cause large amounts of waste, in combination with the careless attitude of those consumers who can afford to waste food.

Food waste in industrialized countries can be reduced by raising awareness among food industries, retailers and consumers. There is a need to find good and beneficial use for safe food that is presently thrown away.

Finally, because consumers continue to eat more and exercise less, in both developed and developing countries overeating is becoming a social issue, in addition to that of hunger.

2.2. Consequences of global food economy, such as global security, poverty and civil

---

6 http://www.fao.org/docrep/014/mb060e/mb060e00.pdf
conflict.

Food insecurity is both a cause and a consequence of violence, contributing to a vicious cycle or “conflict trap”. Food security is critical for political stability. Food insecurity is linked to increased risk of democratic failure, protests and rioting, communal violence and civil conflict. Violent conflicts, in turn, create food insecurity, malnutrition and – in some instances – famine. Thus food insecurity can perpetuate conflict, although its effects depend on the context, with the strongest links evident in states that already have fragile markets and weak political institutions.

Civil conflict is the prevalent type of armed conflict in today’s world. It is almost exclusively a phenomenon of countries with low levels of economic development and high levels of food insecurity. Sixty-five percent of the world’s food-insecure people live in seven countries: India, China, the Democratic Republic of Congo (DRC), Bangladesh, Indonesia, Pakistan and Ethiopia (FAO, 2010), of which all but China have experienced civil conflict in the past decade, with DRC, Ethiopia, India and Pakistan currently embroiled in civil conflicts. Food insecurity, proxied by low availability of calories for consumption per capita, makes democratic breakdown more likely, especially in higher-income countries, where people expect there to be larger social surpluses that could be invested to reduce food insecurity.

Though statistical evidence is lacking, rising food prices have been implicated in the wave of demonstrations and transitions from authoritarian rule to fledgling democracy in some countries across North Africa and the Middle East in 2011.

Throughout history, higher food prices have contributed to or triggered violent riots. Protests and rioting occurred in response to sharp increases in world food prices in the 1970s and 1980s. Record-high world food prices triggered protest and violent rioting in 48 countries in 2007/08. The ratio of violent to non-violent protest was higher in low-income countries and in countries with lower government effectiveness. Recent research links higher world food prices for the three main staple grains (wheat, rice and maize) to more numerous protests and riots in developing countries, though this relationship can be mitigated by policy interventions designed to shield consumers from higher prices. 7

Food price stabilization measures are important tools to prevent food prices from rising and causing unrest. Safety nets are critical instruments that can mitigate the effect of short-term


http://www.milmun.org - info@milmun.org
spikes in food prices on food insecurity, helping to prevent violent conflict and contribute to long-term development. Because young men as a group are most in need of livelihoods and also most likely to participate in political violence, income instability among them must be addressed. Safety nets have the added advantage of mitigating horizontal inequalities, which are one cause of conflict. to provide basic services in states experiencing conflict and because of the perceived impartiality of aid workers. Funding of food and nutrition assistance in post-conflict situations is often problematic, especially in the recovery stage. Food is one of the better-funded areas in relief operations but in the recovery, transitions and early development stages, food is often phased out too quickly, leaving populations at risk and potentially reversing earlier gains in building peace. Transition, peacebuilding, capacity building and the recovery of agriculture are long-term processes; progress is measured in decades, rather than in years (Pritchett and Weijer, 2010).

While the situation seems bleak, the contingent nature of food insecurity’s effect on conflict suggests that governments, international organizations (IOs), and non-governmental organizations (NGOs) can take positive steps aiming to reduce food insecurity and break the relationship between food insecurity and conflict. First of all, governments should act to shield their citizens from higher prices and volatility in world markets by initiating measures to stabilize food prices and by establishing social protection systems that mitigate the impact of high food prices on vulnerable groups. Unfortunately, the capacity of fragile states to do that is limited. However, the World Food Programme and NGOs can assist in times of acute crisis to provide relief. Finally, governments, IOs and NGOs can work to make food security a part of the post-conflict peacebuilding and reconstruction process. The challenges are great, but the potential social, economic, and political costs of inaction are even greater.

III. Bibliography and Further Reading


http://www.milmun.org - info@milmun.org
http://www.scientificamerican.com/article.cfm?id=can-we-feed-the-world

http://fex.ennonline.net/34/time.aspx
