

Food Security:

Definition,

Four dimensions,

History.

Basic readings as an introduction to Food Security  
for students from the IPAD Master, SupAgro, Montpellier  
attending a joint training programme  
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# 1. Introduction

The term "food security" is widely used in publications, articles, statements, the media, etc. Yet, the meaning one gives to it varies considerably: for many, the concepts surrounding hunger, famine and food security are blurred and these words are often used interchangeably.

This paper put together at the occasion of a week of joint lessons between students of the "Institut d'Etudes Supérieures Agronomiques (SupAgro), from Montpellier France and those of the Master in Human Development and Food Security at the University of Roma 3 from 19<sup>th</sup> to 24<sup>th</sup> March 2012 is largely inspired from an article published in "AgroSociales Y Pesqueros", Madrid, April 2009 <sup>1/</sup>. In order to clarify the concepts of food security, we use, as a starting point, the definition approved by the World Food Summit in 1996 and seek to explain the four dimensions of food security, identifying at the same time what has so far been missing in the utilization of the definition of food security.

The paper then presents the concepts related to food insecurity - a situation that one can probably better measure than food security itself - and also reviews the related notion of vulnerability.

In order to provide a dynamic perspective of the concept, the paper goes on to review the change in perception of food security over the last 75 years or so and analyzes the evolution which took place, based on three types of factors:

- The world situation and the perception of food scarcity and food insecurity;
- The actions, recommendations and programmes approved and implemented by national, international and non-governmental organizations;
- The practical and theoretical research conducted on the basis of experience and actual situations/case studies.

Looking at the tools utilized to reduce food insecurity, the paper recognizes that one of the most commonly used over the last fifty years or so has been food aid. Therefore, when reviewing the 75 years of history of food security, reference is often made to situations, institutions and facts that are related to both food security and food aid. The paper then discusses food security governance, reviewing the major institutions that play a role in this respect and trying to clarify their respective competence and importance. In this respect, the author wishes to express his gratitude to his respected friend and ex-colleague Dr. D. John Shaw whom, in his book "World Food Security: A History since 1945" has provided exhaustive information regarding the institutional aspects of food aid and food security.

<sup>1/</sup> George-André Simon, "concepto y gobernanza internacional de la seguridad alimentaria: De donde venimos y hacia donde vamos", AgroSociales y Pesqueros, Revista Espanola de Estudios Agrosociales y Pesqueros, Madrid, 04/2009.

Looking at the future of food security, the papers reviews the possibilities to improve existing tools and facilities, reduce contradictions, get people more involvement in a new management of food security and finally reports on on-going discussions regarding the future of food security governance.

The paper concludes on the future challenges facing food security.

## 2. Food Security

Is it necessary to recall that Thomas Malthus, in 1798, predicted that the population growth would unavoidably supersede the food production ? Is it necessary to recall that about forty years ago some of us were working with the "Club of Rome", under the highlighted leadership of Dr. Aurelio Peccei on the "Limits to Growth", forecasting the end of natural resources including to feed people ?

Still, during the last decades the agricultural production worldwide has grown more rapidly than the population did and there is, now, more food, at least in terms of macronutrients, available to feed the world population, to feed more than today's world population, more food than ever before.

Still, the number of people suffering food insecurity is reported to be increasing and so is, since a few years, the proportion of the overall population suffering from insufficient food.

The distinction between the total number of people suffering from hunger and the proportion of the total population being food insecure originates in the differences between the commitments taken by the international community, respectively at the 1996 World Food Summit in Rome, on the one hand, and at the 2000 Extraordinary Meeting of the United Nations General Assembly approving the Millennium Development Goals (MDGs), on the other hand.

It is therefore time to review the old model of hunger management, the tools available for that purpose, take lessons from the past and try to figure out what is needed for the future.

### 2.1 Definitions of Food Security

Although Gentilini identified about two hundred and five definitions of Food Security and Smith, Pointing and Maxwell counted about two hundred different definitions, we shall refer to the most commonly accepted definition that was approved by the 1996 World Food Summit (WFS) and remains one of the important achievement of the meeting. (Gentilini, 2002), (Smith and al., 1993)

"Food security exists when all people, at all times, have physical, [social] and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life". (FAO, 1996)

The term "Social" was added to the 1996 definition in 2002.

WFP offers the following definition : "A condition that exists when all people, at all times, are free from hunger". (WFP, 2009, p. 170)

Although WFP utilizes a definition that seems much more simple, we shall refer to the original WFS definition as it carries with it many elements important for the analysis.

## 2.2 The Four Dimensions of Food Security

Food Security involves four aspects entitled the Four Dimensions of Food Security. Those four dimensions are easy to extract from the WFS definition and are, together, equally useful as a tool for food security analysis.

### 2.2.1 Availability

The first dimension is the **availability**. In the WFS definition it refers to the term "**sufficient**". It is defined by WFP as "The amount of food that is present in a country or area through all forms of domestic production, imports, food stocks and food aid". (WFP, 2009, p.170). The definition obviously refers to net commercial imports, once deducted the commercial and other exports, furthermore the definition does not only apply to countries or areas but also to villages and households. A previous definition by WFP did also refer to "commercial imports including cross-border trade" and is still par of their operational manual.

Although the final declaration adopted by the FAO Founding Conference stated that "the first cause of malnutrition and hunger is poverty", for a long time it has been considered that food security was a synonym to availability of food. (Shaw, 2007, p. 4). Most of the efforts undertaken by researchers, practitioners and teachers during the last three decades consist demonstrating and trying to convince that food security is not simply a question of availability of food.

The conviction that food security consists in the availability of food commodities normally results in the believe that increasing food production would increase food security.

Again, during the last fifty years or so, the agricultural production has continuously grown more quickly than the population, the amount of food commodities available on earth (at least in terms of macronutrients) is largely sufficient to feed more than today's world population and still, some people do not have access to food.

### 2.2.2 Access

The second dimension of food security is the **access**.

In the WFS definition, it refers to “**have physical, economical and social access**”... Although the concept of access to food was first presented by Amartya Sen in the early 1980's, it is not yet necessarily common to refer to it as an important element of food security. Moreover, since the Niger food crisis in 2005 and the World food prices crisis in 2008, many are tempted to limit the access dimension of food security to its economical or financial dimension.

WFP, for example, defines the food access as “A household's ability to acquire adequate amount of food regularly through a combination of purchases, barter, borrowings, food assistance or gifts”. (WFP, 2009, p. 170).

In fact, there are three elements in the access to food: physical, financial and socio-cultural.

- The physical aspect is in fact almost a logistical dimension. An illustration is provided by a situation where food is being produced in the concerned country or area but in another region with limited or no transport facilities between both regions and lack of information. In a situation of food security the food is available at the location where people (households, etc.) actually need it.

- The economic aspect of the access to food can be defined as WFP does. In a situation of food security, thus, food commodities are available where people need it and households have the financial ability to regularly acquire adequate amounts of food to meet their requirements.

The understanding that food commodities being available but not affordable by people would determine a situation of food insecurity is still recent in the story of food security. During the last years, however, this has been increasingly recognised. As a consequence, one could observe a sudden interest shown, towards the market by food security analyst and practitioners.

For many years, in fact, the problematic of food security had been perceived as that of rural population living in almost complete autarchy and some times, for climatic and other reasons, not producing enough food to meet their own requirements and hence suffering famines and malnutrition.

Today, likewise OXFAM, many analyst have found out that : “Even in rural areas most people, and especially the poor, rely on market systems to provide food and essential goods and services but also for selling their produce”. (OXFAM, 2007).

It may be useful to remember that for many years data such as those collected by the “SIM” (Système d'information des marchés) (Market Information Systems) in particular in the Sahel region have not really been utilized for the purpose of food security analysis.

- Finally, the last element of the access to food, as per the WFS definition, is the “social” or socio-cultural access to food. This refers to the fact the food commodities may be available, physically near to the consumer that may have the required resources to acquire them but that there may be socio-cultural barriers limiting the access to food, in particular to some groups of the population for gender or social reasons for example. It seems to be one of the fields where there is, so far, the less research although some work is being done by researchers such as Dr. Mariame Maiga from the University of Wageningen whom is working on the cultural dimensions of vulnerability

related to HIV/AIDS and Food Security from a gender perspective. (Maiga, 2009).

But there is room for further research in this field which so far has demonstrated to be less popular than other aspects of food security.

### **2.2.3 The Utilization Dimension**

The third dimension of food security is food utilization. In the WFS definition it refers to “**safe and nutritious** food which **meets** their **dietary needs**”.

It is not sufficient that food be available and accessible to households to ensure that people will have a “safe and nutritious” diet. A number of elements intervene here such as: the selection of food commodities, their conservation and preparation as well as the absorption of nutrients. Food has to be of good quality and safe.

It should not be taken for granted that all people, even in so called traditional societies, know how to best utilise food commodities, not to mention the fact that dietary habits are changing very quickly, including in so called traditional societies. This is even more true for displaced persons and refugees and people victim of a shock that may have modified the commodities value chains.

Training may be required to help people optimising their use of the food that is available and to which they have access. In fact, a number of observations have been made, including by WFP of population living where food is available, having a full access to food and still suffering from malnutrition mainly because of a non correct utilisation of the food commodities. (Conte and Al., 2002)

Food utilization is also related to clean water, sanitation and health care. This dimension, thus, not only refers to nutrition but also to other elements that are related to the use, the conservation, the processing and the preparation of the food commodities.

It shows, however, how closely nutrition is linked to food security and therefore confirms that it is a useless repetition to speak about food security **and** nutrition as there could not be any food security without proper nutrition.

It further brings the attention to the problematic of food safety which, unfortunately, has been dealt with mostly in the context of developed countries and needs to be fully recognised as an essential part of food security in general. Some research are being conducted in this respect by Dr. Ilaria Proietti, Dr. Rossella Pulcrino and Dr. Afenyo Joy Selasi from the University of Roma Tre to develop links between food safety and food security and insert in the food security practitioner tool box some elements directly related to food safety. (Proietti, 2009). It should be noted also that due to linguistic elements making that in French and Italian, unlike in English and Spanish, there are no distinctions between food safety and food security expressed respectively as “Sécurité alimentaire” and “Sicurezza alimentare” there has been some confusion between food safety and food security.

### **2.2.4 The Stability**

The fourth dimension of food security is stability. In the WFS definition it refers to: "**at all times**". This stability applies in the first instance to the previously mentioned three dimensions of food security. Food security is "a situation" that does not have to occur a moment, a day or a season only but on a permanent basis with sustainability.

Based on the stability dimension of food security, one speaks about chronic and transitory food insecurity:

- Chronic food insecurity is a long term or persistent inability to meet minimum food requirements
- Transitory food insecurity is a short term or temporary food deficit.

There are also cyclical food insecurity such a seasonality. (Devereux, 2006)

### **2.2.5 What the four dimensions do not cover**

From the 1996 World Food Summit definition of food security, the elements that are not included in the four dimensions of food security as described above are the "**Food preferences for an active and healthy life**". The elements related to "food preferences" could be the object of some further thinking and research, which, at the household and individual level, could be comparable to what food sovereignty is at the country level.

## **3. Food Insecurity**

Food security is hard to measure and therefore it is usually the food insecurity that is measured, assessed or analysed with a view to determining the factors that may have caused this situation or may cause it in the future and decide on corrective measures.

### **3.1 Definition**

FAO defines food insecurity as a situation where some people do not have access to sufficient quantities of safe and nutritious food and hence do not consume the food that they need to grow normally and conduct an active and healthy life.

Food insecurity may be due to:

- lack of food: no availability
- lack of resources: no access
- improper use: no proper utilisation
- Changes in time: no stability



Food security and food insecurity are both situations. In order to move from one to the other a movement is needed. When analysing food security one will look at this change and also at the probability that such change occurs.

### **3.2 Vulnerability**

Vulnerability to food insecurity refers to the full range of factors that place people at risk of becoming food-insecure. The degree of vulnerability of individuals, households or groups of people is determined by their exposure to the risk factors and their ability to cope with or withstand stressful situations.

Food security as well as poverty are used to describe people's welfare at the present time. Vulnerability complements this static picture with a dynamic, "forward looking" perspective that is used to predict how the welfare of individuals and households may change in the future as a consequence of not being able to face adverse events that may happen to them.

Vulnerability can be expanded to capture a more complex relationship between *risks, ability to cope (actions taken before, during and after shocks)* that affect food security. When viewed in relation to the probability of experiencing welfare loss caused by uncertain events, it also depends on the ability to reduce risks before a shock occurs (proactive) and respond effectively during and after they occur (reactive).

FAO defines vulnerability as the presence of factors that place people at risk of becoming food insecure or malnourished including those factors that affect their ability to cope. While WFP retains the following definition: "The vulnerability to food insecurity is made of all the factors that constitute a risk for people to become food insecure including factors that affect their capacity to face the difficulty they meet. In other words vulnerability to food insecurity relates to situations where there is a risk – in certain circumstances or following some events or shocks (drought, disease, civil disturbance, etc.) – that future food intake will be inadequate" but also the following definition more simple: "Conditions that increase a household's susceptibility to the effects of hazards. It is a function of a household's exposure to a hazard and its coping capacity to mitigate the effect of that hazard". (WFP, 2009, p. 172).

The vulnerability, which is a risk, hence a probability, may be measured, but in relative terms. As there are no unique indicators to measure the three food security dimensions: availability, access and utilization, there is no unique indicator to measure vulnerability.

## 4. Where we are coming from: Evolution of Food Security

This chapter does not aim at providing an exhaustive picture of the concerns for food security throughout mankind's history but rather to put things in perspective in order to contribute to highlight a few important steps in the recent evolution of concepts and facts related to hunger, malnutrition and food insecurity as well as the efforts undertaken to limit their effects.

For the sake of simplicity it divides the last 75 years or so in four periods based mainly on the world food situation. It does not have any other ambition than contributing to putting events in a chronological order and trying to highlight hidden links hoping that it may contribute to a better understanding of the present and future approaches to food security.

The fact that this Chapter starts with the identification of the first food security concern at worldwide level within the framework of the League of Nations does not intend to hide that hunger and malnutrition have always been major concern of human populations.

### 4.1 1930 – 1945: Post World War one and League of Nations

This review of the history of Food Security begins where and when "Food Security" starts to be a concern at world wide level rather than at a country, province, village or household level only.

During the 1930's, and following World War one, world affairs were being dealt with by the League of Nations.

In his "World Food Security", John Shaw reports the Sir John Boyd Orr writings regarding what may be considered as the origin of modern food security. "In the early 1930s, Yugoslavia [as a member of the League of Nations] proposed that in view of the importance of food for health, the Health Division of the League of Nations should disseminate information about the food position in representative countries of the world. Its report was the first introduction to the world food problem into the international political arena". (D. John Shaw, 2007, p.6).

A survey was conducted by the Health Division of the League of Nations and a report on "Nutrition and Public Health" was submitted in 1935. The report showed that there was an acute food shortage in the poor countries, the first account of the extent of hunger and malnutrition in the world. Reviewing the report, the Assembly of the League of Nations held discussions on nutrition and nutrition policies and the need for co-ordinated nutrition policies in a number of countries. The strong involvement of the Health Division and of nutrition experts in this review of global hunger and malnutrition may contribute to explain the present somehow complex relationships between nutrition and food security.

Altogether, food security being by essence multidisciplinary there are no difficulties to include nutrition within the food security problematic and, at least in a development perspective, it would make limited sense to separate nutrition from the other disciplines that contribute to analysing food security.

While on the one hand, following the efforts undertaken by nutritionists and medical doctors, scientists, international civil servants and national diplomats discussion were taking place within the League of Nations to address the problems of malnutrition, on the other hand, always within the League of Nations other professionals, other international civil servants were discussing with the same national diplomats about the international commodity trade, the tariff barriers and whether a reduction of food production would contribute to rise prices which had dramatically fallen down following the economic crisis. These latter series of discussions generated much more interest than the former in the world of food production, processing and trade, and in particular among the producers' organizations, some of which having since then become real political lobbies with little primary concern regarding malnutrition and food insecurity.

The League of Nations finally, however, agreed that increasing food production to meet human needs would bring prosperity to agriculture, which would overflow into industry and bring the needed expansion of the world economy through what was described as the "marriage of health and agriculture". (Boyd Orr, 1966, p. 119) and (D. John Shaw, 2007, p.7).

This marriage represents probably the premises of the story of modern food security born from the difficult and unequal relations between health and agriculture where the former did likely not get the feeling of leading the story and was probably even more frustrated by the arrival in the gang of other parties such as economists to cite only one group.

This story also recall how often the objective to meet human needs in terms of food has been presented as an important policy objective while in fact governments were actually "simply" trying to face political difficulties related to the agricultural sector and to solve economic problems.

Therefore, when reviewing the evolution of what will bring a more relevant approach to food security, we shall refer to facts and decisions more closely related to politics, agricultural and economic policy than to food security. And this, - in order to put here a positive note -, until the multidisciplinary aspect of food security is recognized and enables the required synthesis and allows to put into practice the needed co-ordination.

Over and above the origin of modern food security, this first period was conditioned by a number of factual events that had taken place earlier and which were all related to factors directly or indirectly influencing world food security.

In the history of the United States they were period during which agricultural commodities were produced in surplus. Going back in history, it seems to be in 1896 that the USDA (the United States Department of Agriculture really started to develop and implement policies to influence the production using tools such as price control, credit control, export support, including programmes that were very close to early food aid programmes such as with the first big scale food aid operation taking place after first world war in 1918 when the US shipped more than 6 million tons of food commodities to Europe between 1919 and 1926. (D. John Shaw, 2007, p.12).

Again, by the end of the 1920's and early 1930's excess stocks started to accumulate and world prices fell to very low level and it is interesting to recall that in this field the USA, the country often perceived as that of liberalism has been extremely inventive to create a number of mechanism to influence, control and regulate the activities of its agricultural sector.

The Agricultural Adjustment Act, approved in 1933, aimed at controlling the production based on the area planted. Within the framework of this Act a Grain Stabilization Board to provide direct subsidies for agricultural exports was established. Furthermore, a Commodity Credit Corporation (CCC) was created in order to buy and sell agricultural products, thus influencing the prices on the market, and to make loans to farmers. Still today, the CCC is an important tool in the US agricultural policy and it played a leading role in the procurement of surpluses and other food commodities purchased on the US market for the purpose of being shipped abroad as food aid.

In 1943, during the War, Nations of the World decided to establish the Food and Agriculture Organization of the United Nations at a Conference on Food and Agriculture convened by President Franklin D. Roosevelt at Hot-Spring, Virginia in the USA.

During the second world war, governments attempts to control farm output were reversed, especially in North-America and every efforts were made to increase the food production in order to reduce the dependency towards outside as, due to the war, the supply was not ensured. This breakdown of the supply chain left strong trace in the popular conscience until the end of the century.

## 4.2 1945-1970: Post World War two, UN, FAO, Surpluses

After the war thus, in both part of the Atlantic Governments decided to support and reinforce the agricultural sector and the farmers production as for some times after the end of the war food supply remained a major concern in many developed countries. In fact, it is still quite common to find traces of this situation in several European countries. In France, for example, vouchers to obtain limited rations of basic food commodities were in used until 1950.

In Canada, an agricultural price support legislation was introduced in 1944. Allover Europe policies were developed to reinforce self-sufficiency and increase the agricultural production and hence the farmers revenue at a time where farmers still accounted for a majority of the population. There could therefore be some kind of "political" interests beyond measures that were supporting and privileging the numerous population of the primary sector of the economy. But, things will change fairly rapidly bringing, more recently, to situations where, in some instance the rural areas are depopulated and efforts of creativity are being made to bring people back to rural areas and develop new type of activities.

The newly established FAO organized its first World Food Survey in 1946. The objective of the survey was to find out whether there was enough food, and more specifically enough energy or macronutrients (calories) for everybody on earth. The conclusions were that at least one third of the world population (in 1945) would not get sufficient amount of energy.

This data together with the trauma left by the lack of food in many European and North American countries as a postwar elements pushed governments in the world to care about the increase in food production with an aim to ensure that there would eventually be enough food for everybody on earth. Their policies all over Europe and North-America were so successful that quickly the production exceeded the consumption hence creating surpluses, which then had to be managed. In fact, as early as 1946/1947, FAO had been requested to study *also* the possible consequence of overproduction of agricultural products, a phenomenon that soon become a concern for many countries.

Overproduction of agricultural commodities will generate food (and other) surpluses and part of this surplus food will be utilized as food aid. Food aid is both in quantity and in value – but not necessarily in efficiency - the tool that has been the most utilized to fight food insecurity, hence the link between food security and food surpluses and also the fact that it is still impossible to review the evolution of food security without referring to the policies related to food surpluses that often were presented as being geared towards reducing hunger and malnutrition, in other words improving food security.

In this respect one may recall that between 1948 and 1953 some 3 billion of US dollars worth of food (aid) were transferred from the US to Europe within the framework of the Marshall Plan. In 1949 the United States Government established what is known as "Section 416" an important source of funding to procure surplus commodities to be utilized, as far as food commodities are concerned, as food aid.

In 1952 the FAO established a Committee on Commodity Problems (CCP) as Member Countries had realized that increasing agricultural production would generate surpluses in food commodities.

The CCP recommended that a set of principles, or a code of conduct, to govern the disposal of agricultural surpluses be agreed upon. It also recommended the establishment of a permanent committee to deal specifically with surplus disposal. The Consultative sub-Committee on Surplus Disposal now known as the CSSD and established in 1954 still exists in Washington DC and still reports to the FAO Committee on Commodity Problems.

1954 is also the time when the United States government established the well known Public Law (PL) 480. PL 480, which turned fifty years in 2004, was, and still is, the US administration appropriation to finance food aid activities.

On 27<sup>th</sup> October 1960, the United Nations General Assembly passed a resolution on "the provision of Food Surpluses to Food-Deficit people through the United Nations Systems" (UN, 1961) basically establishing the World Food

Programme (WFP). Because it was recognized that the ultimate solution to the problem of hunger laid in the economic development of developing countries it was agreed that large amount of surplus food would be utilized for multilateral development purposes. At inception thus, WFP was mainly using surplus food commodities for development programmes.

At the same time, research undertaken by FAO noted that there was a serious distinction between chronic malnutrition and famines, with chronic malnutrition being recognized as a growing concern and a first clear distinction between chronic and transitory food insecurity being acknowledged. Famine was perceived as a relatively sudden and unforeseen event due to natural element such as drought, floods or earthquake and in situation were people would be fully dependant from their own agricultural production with limited possibilities of assistance, other activities and transport of commodities from surplus regions. In fact, the proposal to establish an FAO "Famine Unit" within FAO, although approved by the FAO Conference, was never put in place.

Studies conducted by nutritionists acknowledged the importance of malnutrition. The number of people affected by malnutrition being about 100 times more that the number of people affected by famine. Still, the main answer was the provision of bulk food commodities in the form of food aid.

In 1961, the World Health Organization (WHO) and FAO jointly created the joint Codex Alimentarius Commission in order to regulate the food safety by establishing international standards regarding processing, labeling, sampling of analysis, hygienic requirements, etc, of food commodities. Within the complex story of the "marriage of health and agriculture" mentioned above, this surely represented another missed opportunity to closely link food safety and food security.

In 1963, participants in the Kennedy Round of Negotiation on tariff of international trade under the General Agreement on Tariff and Trade (GATT) which were dealing exclusively with industrial goods recognized the importance of the international trade of agriculture products which were, so far, left apart. A first International wheat Agreement had been signed in 1962 but although the first "Agreement on Agriculture", within the new WTO, was signed only in 1996, as part of the Marrakech agreement, the 1963 recognition was the beginning of a long story, closely related to food security and which is far from having been completed so far.

The increase of demand for food commodities, in particular by the Indian sub-continent and the decrease of the world food stocks in the early 1960's resulted in an increase of the prices of food commodities and reduced the availability of food surpluses. Therefore, the United States and Canada sought to share the burden of providing food aid to poor food-deficit countries with other major industrialized grain importing and exporting countries, especially in Western Europe and Japan which had, until then, provided little or no food aid. (D. John Shaw, 2009, p. 74).

Also the 1962 International Wheat Agreement had to be renewed, while discussions were taking place at the Consultative sub-Committee on Surplus Disposal (CSSD) regarding the establishment of a catalogue of transactions that would serve to define those considered as food aid, as part of the "FAO Principles of Surplus Disposal" first approved in 1954.

Often, people that have a first serious look at food aid are quite shocked by the fact that food aid transactions, as defined by the CSSD, include a number of operations that look more closely related to trade than to food security. Beyond the cultural and political dimensions of this reality the interrelations between these different negotiations provide some kind of institutional explanations.

In 1967 an International Grains Agreement was approved at a conference called by the International Wheat Council and UNCTAD in Rome. This agreement was made of two different Conventions: the International Wheat Agreement and the Food Aid Convention.

Several "Food Aid Conventions" were approved since then but it was only the last one, signed in 1999 and still in force, that formally recognized that the objective of the Convention is to "contribute to World Food Security". (International Grains Council, 1999, p. 4).

The Food Aid Convention was, and still is, the only legal commitment to provide food aid, not necessarily to aim universal food security.

In 1969, the FAO Committee on Commodity Problems (CCP) approved the CSSD Catalogue of transactions which *de facto* was defining food aid.

Both the Food Aid Convention and the CSSD Catalogue of transactions recognized as "Food Aid" a number of transactions which contribution to food security still remains to be demonstrated.

#### 4. 3 1970-1990: Food crisis, Amartya Sen, Major Refugee situations and other of emergencies, drought in Africa

During the 1950's and the 1960's the world food production increased by more than 50 percent and the production per capita increased by more than 20 percent. This increase, this growth had become an expected normal feature bringing, at the end of the sixties, about 2 percent or 25 additional millions tons on the world market each year. By the end of the 1960's world cereal markets continued to suffer from important surpluses. The United States only had a programme of concessional sales of more than 12 million tons of food aid. USA and Canada were implementing serious plans of supply management with the aim to reduce their output through a diminution of the area planted and also a reduction of some of the supports offered to farmers.

There was, however, an abrupt change in 1972 with bad climatic conditions in several regions of the world resulting in a dramatic reduction in cereal production. The diminution in the cereal production was about 3 percent or 30

million tons thus resulting in the fact that the cereals available would represent 55 millions tons less than expected.

Due to mainly climatic conditions, the USSR and a few other countries became food importers. Cereal exports from the US in 1974 were 66 percent higher than in 1973 which had been already much higher than 1972. To do this, it had been necessary to draw on the existing stocks bringing them at their lowest level since at least 20 years. Worldwide cereal carryover stocks, for example, fell from more than 200 millions tons in 1970 to slightly more than 100 millions tons in 1974.

At the same time OPEC (the Organization of Petroleum Exporting Countries) decided to increase the price of petroleum to unprecedented record levels. This in turn affected both the cost of fertilizers and of the transport of the same cereals.

All this resulted in an increase of the prices of cereal food commodities which reminds us of what happened in 2008 and 2010.

Although many developing countries agricultures had seriously augmented their outputs, in average by 2 percent per year for the last 20 years, these countries were still dependant on the imports. Imports that took the form of either commercial transactions or food aid. Food aid represented between 40 and 60 percent of the total imports of developing countries.

Commercial imports were getting more expensive for developing countries, in other words, for the same amount of money they could buy less cereals and food aid, with less surpluses and higher prices, was decreasing too. In fact, food aid dropped from about 17 millions tons of cereals per year in the late 1960's to some 7 millions tons in the early 1970's.

Quantities of food aid purchased by donor countries, at higher prices, decreased as the budgets were not brought up as would have been necessary to maintain the quantities transferred. In reality, there were no reasons to increase budgets as their main justification was the utilization of surpluses rather than the provision of food aid required to maintain the overall food security.

In view of the international food crisis, a number of countries from both developed and developing world requested the United Nations to organize an international conference to review the situation and agree on possible measures.

The United Nations World Food Conference took place in November 1974 in Rome with, as one of its objective, to agree on measures to ensure that: "within a decade nobody would suffer from food insecurity". Therefore, the Conference approved a number of recommendations dealing with what was referred to as "Food Security".

The Conference approved an International Undertaking on World Food Security which for the first time recognized that food security was a common concern of all nations.



Food Security, however, was perceived and defined mainly as the availability of adequate food supply at all times. The efforts to solve the crisis, it was felt, had thus to deal primarily with the production of food commodities and all efforts to improve food security were mainly to be concentrated on increasing the production of food commodities and ensuring an increased availability of food. In line with this quantitative approach the conference recommended that donor countries provide at least 10 million tons of food aid annually to developing countries. This recommendation was referred to as one of its objectives by the Food Aid Conventions until and including that of 1995.

Among many other proposals put forward by the conference, the following present some type of interest. The establishment of IFAD, the International Fund for Agricultural Development now playing an increasingly important role in food security, the creation, within FAO and as part of its governing body system, of a Committee on Food Security (CFS), which has now become the world focal point for food security governance, the Global International Early Warning System (GIEWS), the World Food Council, the Committee on Food Aid Policies and Programme (CFA) to serve as the WFP governing body as well as the world focal point for food aid governance, the International Emergency Food Reserve, (IEFR), now one of the major source of funding of WFP's emergency operations.

1979 and 1980 saw major afflux of refugees searching asylum after leaving their countries Afghanistan and Cambodia and forcing the international community to deal with protracted refugee, and hence emergency, situations and thus to reconsider in particular the modalities of their food aid operations. The 1983 – 1985 drought in Africa appeared as another challenge for the affected countries and the international community to deal with food security in case of shocks. It will, however, be only after the fall of the Berlin Wall that, due to the changes in the world geopolitical equilibrium, the concern for food insecurity will increasingly be related to emergency situations. The 1983 – 1985 as well as the 1992 food crisis in Africa being due to unfavorable climatic conditions having affected the harvests, the related analysis and answers were almost fully based on the availability dimension of food security. More resources were invested in solving logistical problems related to increasing the availability of food commodities in affected countries than in dealing with malnutrition.

More important for food security is the fact that in 1981 new concepts entered into the debate following research made on famines by the future Nobel Prize, the Indian Amartya Sen. Sen's major argument was that during the past famines the main problem was not so much the lack of food but rather the impossibility for poor people to access it.

Sen explained that most cases of starvation and famines in the world resulted not from people being deprived of what they were entitled but rather from people not being entitled to adequate means of survival in the existing legal and social systems they were leaving in. During famines, thus, poor people

were much more affected than others, due to a breakdown in their entitlements.

Sen's entitlements approach introduced the dimension of access in the debate of food security and it did much more than that but the methodology he has put forward is still far from having been fully utilized.

The access dimension, however, as highlighted by Sen in 1981, was formally recognized in 1996 only at the Rome World Food Summit and practically put into practice by food security practitioners only after the 2005 Niger crisis and the 2008 world food prices crisis. Why did it take so long ? Why were opportunities lost ? A number of them occurred during this period.

In 1976, FAO established a Food Security Assistance Scheme (FAO, 1984) to assist developing countries reaching food security. This Scheme dealt mainly with short term food supply and with improving food production as well as with a special action programme for the prevention of food losses.

Following several years of discussions in different FAO Committees and in its council, the 1979 FAO Conference approved a Food Security Action Programme aiming at assisting food deficit developing countries in importing and storing food commodities. (FAO, 1979a and b).

In 1983, the FAO Conference adopted a resolution on World Food Security (FAO, 1983) which stated that "the ultimate objective of world food security should be to ensure that all people at all times have both physical and economic access to the basic food they need".

The report prepared by Edouard Saouma, the Director General of FAO had obviously been inspired by Sen's work as described above.

In 1985, the FAO Conference approved a World Food Security Compact which had been proposed by its Director General E. Saouma and had been approved, with some difficulties, by the CFS. The Compact was presenting a series of principle such as "the fundamental right of everyone to be free from Hunger" recognizing that it was poverty that prevented the human right to food from being exercised, the fact that "food should not be used as a mean of exerting political pressure" or the need to recognize the moral dimension of commercial relations.

Many are the factors that could explain why this new approaches did not really open a new era. Among them, probably, the two World Food Surveys conducted by FAO in 1977 and 1987 which contributed to show the incredible and unexpected progress of agricultural production. These surveys confirmed the irrelevance of the Malthusian theories in that the serious progress that had been achieved enabled mankind to feed a growing population.

In any case, the above examples confirm that food security was a concern for the international community but that there was no perceived need to actually change the approach and utilize new tools.

#### 4. 4 1990-2005: Golden years of Food Security

The period started, following the fall of the Berlin's wall, with the 1992 drought food crisis in Southern Africa and was characterized by the fact that at least fifteen high level international conference dealt with food security and approved recommendations related to food security. Fortunately, during this period the approach to food security has been growingly characterized by its multidisciplinary dimension.

The 1992 International Conference on Nutrition, jointly organized by FAO and WHO, met in Rome and was a major milestone in the recent development of food security.

The final declaration approved by participants Member States stated their: "determination to eliminate hunger and to reduce all forms of malnutrition. Hunger and malnutrition are unacceptable in a world that has both the knowledge and the resources to end this human catastrophe." They further recognized that "access to nutritionally adequate and safe food is a right of each individual" and also that "globally there is enough food for all" and that "inequitable access is the main problem".

The declaration took note, with concern, of the "unacceptable fact that about 780 millions people in developing countries did not have access to enough food to meet their basic daily needs..."

The Conference approved an ambitious Plan of Action which called, i.a., for inter-sectoral co-operation and co-ordination between all actors concerned. (FAO/WHO, 1992)

This conference which may have appeared as another attempt to reinforce the "marriage of health and agriculture" mentioned at several occasions above did not meet the expectations in this respect may be partly because the WHO Director General whom had probably not closely followed the recent development in terms of food security since 1974 and referred to the 1974 World Food Conference "which had focused on food security" and stated that "We know that food security alone is not enough to prevent problems of nutrition. This is why we address the nutritional security of all people. We are building a bridge that spans health and agriculture to achieve sustainable development". This "bridge" unfortunately confirmed that health and agriculture were not yet sharing the same home.

Important progress will be made in 1996, 22 years after the 1974 World Food Conference, at the occasion of the 1996 World Food Summit organized by FAO in Rome.

The Summit is and remains a major milestone in the history of food security. John Shaw reports that the conference was called mainly following the election of the new FAO Director General, Jacques Diouf. (D. John Shaw, 2007, p. 347). It was thus not another political answer to pressing international needs related to a new "food crisis". In fact, the report presented by FAO at its Committee on Food Security in 1994 (FAO, 1994) explained that impressive progress had been made in aiming at improving food security, that by 1992 both the absolute number of people and the share of the world population that were in a

situation of food insecurity had declined, even if more recent data showed a modest deterioration in 1993/94. Far, thus, from some lights of the medias, in as much as possible, of course, at a time where people were tired of expensive international forum, the Summit, therefore, could possibly work with some kind of serenity on substantive matters.

For academics the Conference mainly remains as the mechanism having permitted the approbation of a new definition of food security still in use some 13 years later and which, as we have shown above, has not yet been fully exploited. The many hours that experts and diplomats spent together negotiating this definition were thus worth. This new definition of food security recognized the multidisciplinary approach of food security as well as the interrelated causes of food insecurity.

The Conference confirmed the strong will of the nations of the world to get rid of famines and starvation and its final Declaration reaffirmed the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger. The conference approved a Plan of Action which recommended to government that "each nation must adopt a strategy consistent with its resources and capacities to achieve its individual goals and, at the same time, cooperate regionally and internationally in order to organize collective solutions to global issues of food security". (FAO, 1996). Food Security is thus recognized to be a global concern, however, the *sacro-saint* rules that organize the world political governance recognize only the single country as the individual actor and starting point and then calls for coordination at the global level rather than for global governance. The same problematic will arise 13 years later when the food security community will try to re-organize the way the Committee on Food Security is working.

The Plan of Action which aimed at eradicating hunger in all countries, included, among other resolutions, the intention to reduce the number of malnourished people in the world by half not later than 2015. The Conference also somehow approved the principle of the "Right to food" although without the support of the United States of America which did delay a lot the implementation of the "Right to Food" which is not completed as at today, despite the courageous and competent efforts by non-governmental organizations.

At the World Food Summit + 5 which was held in Rome in 2002 as well as at the meeting of the Committee on Food Security that took place in 2006, ten years after the WFS, figures were not very optimistic regarding the reduction of the number of malnourished people, rather some increase in these numbers was feared which, unfortunately have been confirmed since then.

Still, progress have been made. By 2002 and following the recommendations of the 1996 WFS 150 developing and transitions countries had been able to produce national food security strategies.

The 1996 + 5 Summit in 2002 approved the creation of the International Alliance Against Hunger (IAAH) which groups many international, non-governmental and civil society organizations and has a mandate to deal with advocacy, accountability, resources mobilization and co-ordination in order to

strengthen national and global commitments and actions to end hunger. (FAO, 2002)

This review would be unacceptably incomplete if it would not mention, in 1996, the approbation by the European Commission of a new Food Security and Food Aid Regulation replacing their previous Food Aid Regulation and allocating, for the first time, financial resources to action specifically related to food security. It was probably too early and thus it has been hard for the Commission to "invent" new projects that would have a direct impact on food security without falling into the classical portfolio of development projects. Some ten years later, when this Regulation was in turn superseded it would have been possible, thanks to improved tools to deal with food insecurity, to utilize these resources more efficiently.

In 2000, the United Nations Millennium Summit met in New-York in September as a special session of the UN General Assembly. The Summit approved 8 Millennium Development Goals (MDGs) the first of which refers to "Eradicate Extreme Poverty and Hunger". Practically, one of the target of this goal is to reduce by half, between 1990 and 2015, the proportion of people who suffer from hunger. A lot of recent literature is available on this topic which will thus not be further developed here. It is useful to note, however, that in the spirit of the MDGs food security and poverty have been grouped together: an obvious progress.

The 2005 food crisis in Niger that was largely reported by international medias referring to famine and hence suggesting an important number of death while many people were "simply" "surviving" and suffering, highlighted some very specific aspect of the economic access dimension of food security. Unusual economic decisions taken in the neighboring Nigeria resulted in an unforeseen increase of basic cereal commodities prices in Niger making this food unaffordable for many people living at the edge of food insecurity. The food was there, - available-, the harvests had been decent, but the price was simply too high for a large range of the population to acquire it.

Similarly, the 2008 world food prices crisis which saw, for a few months, the prices of cereal commodities dramatically increasing by being multiplied by three sometimes four, resulting in an impossible access to food for many population in particular in developing countries, convinced many economists, development economists, agro-economists, etc. that there was an active role for them to play within a multidisciplinary food security.

In 2009, the World Food Programme published the third report of the World Hunger Series entitled: "Hunger and Markets". This publication, another important step in the evolution of food security, offers access to most of the knowledge in terms of economic access to food as available today.

## 5. Where are we going to: Future of food security

Food security is surely a very alive discipline that has evolved a lot and will continue to do so.

### 5.1 Contradiction and weaknesses

One tends to group under the heading "Food Security" the research, concepts, theory and actions that are developed with the objective to reaching food security: "a situation where all people at all time,....".

Food Security is defined as a situation where at all time people have access to available food that will be utilized properly, etc. This implies, as mentioned above, that Food Security is a sustainable situation. Still, one measures the vulnerability precisely as the risk that the situation be not stable, not sustainable.

As mentioned above, part of the definition of food aid as not been fully utilized to develop analysis and tools regarding the causes of food insecurity. Among them we mentioned the socio-cultural elements of the access to food as well as the problematic of the food preferences both at the household and national levels.

Finally, all data, calculations, assessments, evaluations of the number of undernourished person's are based on the calorie or macro nutrients intake. Time has come to stop ignoring the importance of micro nutrients, made of vitamins and minerals, and develop methodologies to assess also properly this aspect of human nutrition. Time has come to recognize that living in a situation of food security does not mean struggling to survive but rather as defined in 1996 benefiting of a "safe and nutritious food which meets dietary needs and food preferences for an active and healthy life".

### 5.2 Applying the theory of capabilities to food security

Correctly so, a number of experts wonder why the theories developed by Sen around his studies of famines do not yet generate related practical tools. In this respect, Thais Bassinello writes "The Capabilities Approach is a broad normative framework for the evaluation of individual well-being and social arrangements, the design of policies and proposals about social change in society. "Capabilities" are defined as the substantive freedoms that one enjoys to lead the kind of life he or she has reasons to value, or the real actual possibilities open to a person. From this capability "set", a person chooses his or her "functioning", the particular beings (like being well-nourished) and doings he or she enjoys at a particular point of time. The approach gave birth to the Human Development paradigm. Hence, Human Development can be seen as the process of expansion of people's capabilities. In opposition to the traditional welfare economics, this paradigm does not use income as the informational basis to assess well-being. Whether or not this will become the leading development paradigm is yet to be seen. For the time being, some

attempts have been made to focus on the expansion of freedoms when assessing projects and policies.

Of particular importance is the on-going debate on how to operationalize the capabilities approach in the design of interventions. International Organizations (like FAO) and NGOs (like OXFAM) currently use the Livelihoods Approach as the conceptual framework for the design and assessment of food security interventions. It seems that, despite of its strengths, the Livelihood Approach also focus primarily on (income) poverty reduction, since people's access to social, human, physical, financial and natural capital (or assets) and their ability to put these to productive use, is in the core of the approach." (Bassinello, 2009).

Food security practitioners need a new tool box and this may constitute an interesting pad for the future. The starting point should be people not money.

### 5.3 Empowerment

Closely linked to the above is the fact that most approaches, methodologies and tools have been developed following a top down approach although serious concerns have been expressed in this respect within the Livelihood Approach. It remains that "imported" tools and schemes continue to be perceived as being alien and need to be internalized also from a more political point of view.

When measuring vulnerability to food insecurity its clearly appears that both Food Security and Vulnerability cannot be captured by a single indicator as they lack of a benchmark to refer to. As mentioned above, there are no unique indicators to measure the three food security dimensions. Similarly, there is no unique indicator to measure vulnerability and it is therefore necessary from a very operational point of view to use proxies and outcome indicators to measure each household food availability, access and utilization level.

Some conceptual approaches, such as that of the Capabilities mentioned above, may offer the flexibility to be based on the local reality, and hence more credible and acceptable while being enough sophisticated to permit regional and international cooperation.

Most developing and transitions countries have developed their food security strategies, they now need to have their own tools to implement them according to their own rules of the game and within certain international order that would include an improved food security governance.

### 5.4 Food Security Governance

When the process will have really moved from top down to bottom up, then there will be a genuine need for actual co-ordination and co-operation. In this respect what happened at the FAO Committee on Food Security in 2008/2009 carries a lot of hopes for the future.

As mentioned above, the Committee on Food Security (CFS) was established as an FAO Committee as part of FAO's governing system. It reported to the FAO Council. But it is far from being the only international forum concerned by food security matters. John Shaw and the United Nations Sub-Committee on Nutrition (SCN) estimated that about 49 international institutions are dealing with food and nutrition security. (D. John Shaw, 2007, p. 207) and (SCN, 1995). Not to mention non-governmental organizations and other foundations issued from the civil society which are playing a fundamental role in fighting food insecurity.

Consequently, members of the CFS realized that a lot of the thinking and actions in the field of food security were the fact of entities that were actually not members of the CFS. In the first instances this applied to the non-governmental organizations which, likewise is often the case with representatives of the civil society, are, at best, tolerated to sit and listen among the "serious" representatives of Nations discussing in international fora. Late 2008, members of the CFS started serious formal and informal discussions regarding the participation of other entities in CFS meetings. Discussions also regarded the CFS mandate. Recognizing the need for a global food security governance, some members of the CFS, supported by a number of other entities, proposed that the CFS would become this world instance.

Some original and courageous proposals flew around such as that of having a Secretariat of the Committee that would not be exclusively provided by FAO in order to show its global character. Representatives of the Civil Society would be allowed to play a real role in preparing the meeting and its agenda, in submitting papers and in making interventions with the clear limitation that only Member States would keep the right of vote and of decision-taking. But the floor would be relatively efficiently opened to those, representing the civil society, that would be willing to influence this decision making process.

This new Food Security Committee, responsible for the worldwide governance of food security would work on the basis of national realities and facilitate regional coordination as well as taking initiatives to facilitate international coordination.

Finally, Members realized that the technical knowledge related to food security was not necessarily fully represented in the present structures of the Committee and discussed the possibility to establish a "High Level Panel of Experts", which would reinforce the substantive and qualitative aspects of the work undertaken by the Committee.

As the history of food security has shown, a co-coordinating and supervisory authority for the world food security can not be located in a single agency with a limited sectoral mandate and membership. Nor can food security depend from a patchwork of hundreds of uncoordinated operational and substantive bodies.

As often in international institutions, however, an elephant may give birth to a mouse but at least the "labor" will have offered the opportunity for constructive discussions that will not be without positive consequences.

It remains also that since 2009 the world enjoys the service of a new Committee on World Food Security made of representative of Member states and of the civil society, a Committee which is no more an FAO Committee but



a Committee at FAO. Its High Level Panel of Expert has submitted interesting ideas and documents. Its structures and way of working is slowly being established through long negotiations. Themes such as land grabbing are the object of long and delicate negotiations, but at least, are discussed, reviewed, studied openly.

## 6. Conclusion - The future of food Security

Hunger and poverty are still predominant factors of people's life in many developing and transition countries and will likely remain so for the next one or several decades.

A lot has been done with encouraging but insufficient results. From the past experience one can learn the mistakes not to repeat, one can build new approaches. The future of food security is probably already written but we can not read it.

The efforts to implement the right to food will probably be the more visible part of the actions undertaken during the coming years but a lot of grass root work will also take place.

New tools that have already been created, such as those invented by Sen, will progressively be utilized and give the opportunity to an increased number of people to decide what their situation will be, or to improve it.

Under the direct leadership of the people's representative themselves interdisciplinary teams of experts, under contractual terms, will, no doubts, contribute to improving their food security situation.

Our hopes and objectives are that, in a world of globalization and rapid transmission of information, the knowledge will also move more quickly in order to reduce the suffering of those in situation of food insecurity.

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