



In the face of hunger

Food security
in our globalized world

INDEX

page 3	EXECUTIVE SUMMARY
page 4	INTRODUCTION
page 6	FACTS OF HUNGER
page 8	CONCEPTS OF HUNGER
page 12	FOOD EMERGENCIES IN THE SAHEL, THE HORN OF AFRICA AND HAITI
page 14	THE NEW ISSUES OF HUNGER
page 15	. Climate change and environmental degradation
page 22	. Biofuels
page 28	. Land grabbing
page 33	. Food prices volatility and international trade
page 40	SOME FINAL REFLECTIONS AND RECOMMENDATIONS
page 42	FOOTNOTES AND BIBLIOGRAPHY

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EXECUTIVE SUMMARY

In the face of hunger: Food security in our globalized world

The purpose of this document is to inform and raise public awareness about the problem of hunger from the perspective of the current reality of our globalized world.

“In the face of hunger: Food security in our globalized world” approaches the food security problem through the complex lens of recognising and guaranteeing food as a human right, in a context where agriculture and natural resources are objects of commodification, demand is rising and consumption habits at the global level are changing, the environmental damage and climate change presume determinants more and more significant, and when international policies keep betting for industrialised agriculture and speculative trading, all in a relaxed regulatory framework, that leaves small producers unprotected and without access to food for the most vulnerable.

Despite the efforts made by countries, international institutions, NGOs and other actors, the truth is that, according to FAO, about 870 million people suffer from undernourishment or chronic hunger. However, the core problem is not the capacity of producing enough food for the global population. In fact, we currently produce 17% more daily calories per person than 30 years ago, even though the population has increased by 70%. The biggest problem for many is access to these, either due to insufficient means to grow their own food, or to lack of sufficient financial resources to acquire them in the market. Yet, what factors are causing the persistence of hunger, despite of having the possibility, at least in theory, of ending it?

The globalization scenario has led to the emergence of new and different problems, in addition to those already known, influencing food and nutritional security of the world’s population decisively. In this document, we approach four aspects that we consider essential in order to understand the current situation of the hunger problem:

- **Climate change and environmental damage:** we explore the existing links between food security, poverty, agriculture, climate change and environmental damage.
- **Biofuels production:** we analyze what they are and how they can influence food security and the environment. Their growth in the last few years has been exponential and it seems they are here to stay.
- **Land-grabbing:** historically the land-grabbing phenomenon has always existed. But at the beginning of the 21st century it is happening on an absolutely terrifying scale, and within a scenario of progressively limited resources (namely land and water) with notable effects on the food security of many communities.
- **The volatility of food prices and international trade:** we analyze the causes of the recent global food price crisis and how speculation and international trade affect the food security of the world’s population.

Keywords: hunger, food security, food emergencies, right to food, climate change, environmental degradation, land-grabbing, food speculation.

INTRODUCTION

‘Manos Unidas’ is the association of the Catholic Church in Spain for the help, promotion and development of developing countries. It is at the same time a Non-Governmental Development Organisation NGDO (‘Organización No Gubernamental para el Desarrollo’ - ONGD), composed by volunteers, Catholic and secular. Throughout the years, all of us who are part of Manos Unidas:

- Work to eradicate hunger, nutritional deficiency, poverty, disease, underdevelopment and lack of education, and its causes (Statutes, art. 5)
- We announce and denounce the causes and possible remedies of hunger and underdevelopment in the Spanish society. (Statutes, art. 6)

From then until today, we strive to build a fairer world where all human beings can live with dignity and develop as individuals, from a shared sense of human solidarity and respect and care for the world we live in.

However, despite the extraordinary growth experienced by the world’s economy in the last few decades, almost two billion people currently live in extreme poverty, inequality between countries and within nations continues to increase, and hunger is still a persistent stigma affecting almost one billion people. Furthermore, our current model of economic growth continues to produce great damages to our planet with regard to its production and consumption processes, making our model of development unsustainable in the long term. The combination of global population growth (expected to exceed 8 billions in 2020) together with a production system with unsustainable models of consumption are inflicting increasingly dangerous pressure on the Earth’s capacity to sustain life. These interactive processes affect the use of land, water, air, energy and other resources.

Therefore, the fight against hunger continues to be a great challenge, and it cannot be postponed getting to understand better the causes of hunger in order to combat it more effectively, incorporating the new problems that stem from globalization and its complex network of related matters and interactions.

This is not a corporate policy document, but an informative document, intended to inform and raise awareness about the issues of hunger from the perspective of the current reality of our globalized world. And aims to share experiences, certainties, and reflections of hunger born from the work undertaken by Manos Unidas with various organisations from the South, and the networking and advocacy work we do to guarantee food security as a real and effective right for all. It is born in the context of the collaboration agreement (10-C01-122) set up between Manos Unidas and AECID (‘Agencia Española de Cooperación Internacional y Desarrollo’, or ‘Spanish Agency for International Development and Cooperation’), aimed to optimize our tools and activities for development education.

First, we will present an overview of data about hunger around the world, several concepts and key ideas such as food security or the right to food, and we will review the most important hunger crises. Secondly, we will approach the changing and complex issues of hunger in the context of globalization, studying in depth four different themes that have an impact on food security: climate change and environmental degradation, biofuels, land-grabbing and food prices volatility and international trade. We will illustrate each of these topics with some examples drawn from our own experience with several vulnerable communities in developing countries, highlighting their resilience practices. We will conclude with some reflections.

We hope that the reading of this document will help us not only to know the dimension of the challenge to fight against hunger, but also – and moreover – to get moving in this direction and to commit to ending hunger as a common project.



World Food Programme's warehouse beside Kivu lake in Bukavu, Democratic Republic of the Congo.

Javier Mármol/Manos Unidas

Some United Nations organizations fighting against hunger



FAO: Food and Agriculture Organization. Established in 1945, its aim is to improve the feeding and living standards of the most needy.



PMA: World Food Programme. Set up in 1963, it is a UN agency that provides food during emergencies to those places most in need, in order to save the lives of victims of natural disasters, wars, or civil strife. It helps an average of 90 million people in more than 70 countries.



FIDA: The International Fund for Agricultural Development (IFAD) is a specialized United Nations agency established in 1977 with the purpose of financing agricultural development projects, mainly for food production in developing countries.



CFS: The Committee on World Food Security (CFS) was established in 1974 as an intergovernmental body intended for providing a framework for the United Nations' system of examination and monitoring of policies related to world food security, including the production of food and the physical and economical access to it. The Committee on World Food Security is the only organization run by the United Nations that has a Civil Society Mechanism. Its function is to encourage civil society participation in the CFS. Membership of the Committee can be obtained by all the Member States of the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), and the World Food Program (WFP), as well as all those states which are not members of FAO but are Member States of the United Nations.



Olivier De Schutter

United Nations Special Rapporteur on the Right to Food:

Rapporteurs are experts appointed by the United Nations to protect human rights. The current Rapporteur on the Right to Food is **Olivier De Schutter**, who is trying to promote this right to its fullest extent, promoting measures, denouncing violations of this human right, leading missions and elaborating reports. He works with all actors involved, including governments, NGOs, specific individuals, etc.

¹ Read references in Footnotes and Bibliography.



FACTS OF HUNGER

The statistics handled by the FAO date back to the period 1969-1971, when the number of victims of hunger around the world was of 878 million. Previous statistics were calculated following a different method, and, therefore, are not comparable. During the last 40 years, this figure has remained over 800 million. After some successes in the reduction of hunger, undernourishment has increased regularly since 1995, experiencing an important rise after 2009, after the economic and financial crisis.²

According to FAO's annual report *The State of Food and Agriculture 2012*, there are currently 870 million hungry people in the world.

As shown in the map, countries with a very high hunger rate (percentage of undernourished people equal or more than 35%) are predominantly located in Africa: Burundi, Eritrea, Ethiopia, Mozambique, the Republic of Congo, the United Republic of Tanzania, and Zambia. And in the case of America, Haiti.

The report on the *State of Food Insecurity in the World (SOFI)*, published on an annual basis by FAO³ acknowledges that:

- **With almost 870 million people suffering from chronic undernourishment in 2011-2012**, the number of hungry people in the world remains unacceptably high. The vast majority of these people live in developing countries, where it is estimated that around 850 million people, that is, almost 15% of the population, are undernourished.
- Most progresses in this field, however, were achieved before 2007/08. From then onwards, advances at the global

level concerning the reduction of hunger have slowed down and become stabilized.

This means that at least one in every six people do not have enough food to be healthy and lead an active life. Hunger and undernutrition are considered the most serious risk to health at a global level, even more than AIDS, malaria and tuberculosis together.

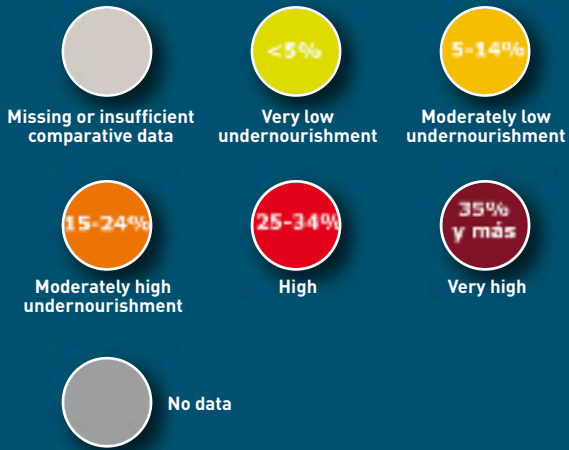
FOOD CRISIS

According to facts provided by the FAO's Global Information and Early Warning System (GIEWS)⁴, there are currently **35 countries that need help for food**. Countries in crisis requiring external assistance for food are those that lack the resources to deal with critical problems of food insecurity.

The number of hunger victims in the world has remained above 800 million people over the last decades

The following list includes crises related to lack of food availability, widespread lack of access to food or severe but localized problems. However, many other countries are seriously affected by high food and fuel prices. Among these are those countries with large net imports of cereals and fuels, usually low per capita income rates, generally low per capita incomes, relatively high levels of malnutrition and subject to high international food prices.

PERCENTAGE OF UNDERNOURISHED PEOPLE WITHIN THE TOTAL POPULATION (2010-2012)



As shown in the map, countries with a very high hunger rate (percentage of undernourished people equal or more than 35%) are predominantly located in Africa: Burundi, Eritrea, Ethiopia, Mozambique, the Republic of Congo, the United Republic of Tanzania, and Zambia. It is Haiti in the case of America.

COUNTRIES REQUIRING EXTERNAL AID FOR FOOD

NATURE OF FOOD INSECURITY	AFRICA	ASIA	AMERICA
Exceptional shortfall in aggregate food production supplies in the production and total supplying of food	Burkina Faso, Chad, Gambia, Lesotho, Mali, Mauritania, Niger, Zimbabwe	Iraq	
Widespread lack of access to food	Djibouti, Eritrea, Liberia, Malawi, Sierra Leone	Democratic People's Republic of Korea (North Korea), Yemen	
Severe and localized food insecurity	Burundi, Cameroon, Côte d'Ivoire, Central African Republic, Congo, Democratic Republic of Congo, Ethiopia, Guinea, Kenya, Madagascar, Mozambique, Senegal, Somalia, South Sudan, Sudan	Afganistan, Kyrgyzstan, Syria	Haiti

Source: FAO (Dic. 2012)





Dining room of a school in Basitan Island, Philippines

Javier Mármol/Manos Unidas

CONCEPTS OF HUNGER

BASIC DEFINITIONS

▲ **Undernutrition:** The result of prolonged low levels of food intake and/or low absorption of the nutrients consumed. Generally applied to energy (or protein and energy) deficiency, but it may also relate to vitamin and mineral deficiencies. (FAO)

▲ **Undernourishment or chronic hunger:** The status of persons, whose food intake regularly provides less than their minimum energy requirements. The average minimum energy requirement per person is about 1,800 kcal per day. The exact requirement is determined by a person's age, size, activity level and physiological conditions such as illnesses, infections, pregnancy and lactation. (FAO)

▲ **Malnutrition:** A broad term for a range of conditions that hinder good health, caused by inadequate or unbalanced food intake or by poor absorption of the nutrients consumed. It refers both to undernutrition (food deprivation) and overnutrition (excessive food intake in relation to energy requirements). (FAO)

▲ **Food security:** exists when all people, at all times, have both physical and economic access to sufficient, safe and nutritious food that meets their dietary needs for an active and healthy life (FAO). Currently, agencies and experts discuss whether to include nutrition in this concept, to rename it 'Food and Nutrition Security'. We believe this term is more complete.

▲ **Food insecurity:** it is defined by FAO as: 'A situation that exists when people lack safe access to sufficient amounts of innocuous and nutritious food for normal growth and development and an active and healthy life.'

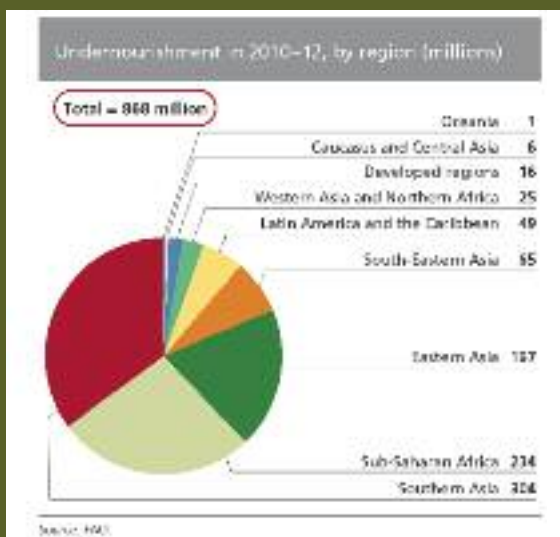
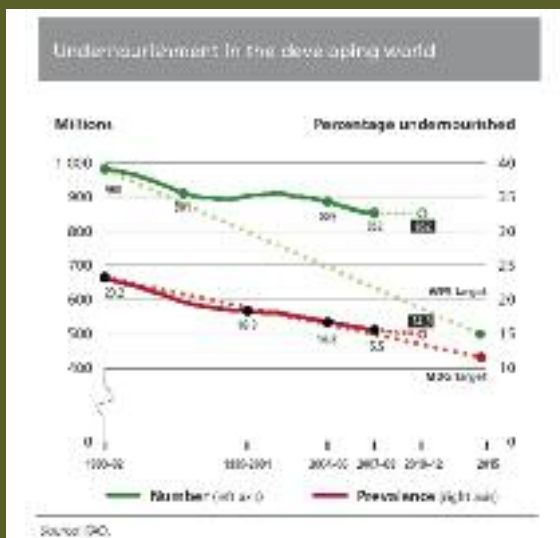
THE RIGHT TO FOOD

It is a human right, recognized under international law, that guarantees that all people have the right to feed themselves in dignity, either producing their own food or by purchasing it.

The Right to Food is recognized under international law, and it seeks to guarantee the availability, accessibility and adequacy of food

To produce its own food, a person needs land, seeds, water, and other resources and, to buy it, one needs money and the possibility of access to the market. Therefore, the right to food requires States to ensure an enabling environment where people can fully develop their potential to produce or procure adequate food for themselves and their families. In order to acquire food, a person needs a sufficient base of income.

People suffering from chronic hunger do not eat enough food to obtain the energy needed to lead an active life. Their undernourishment makes it hard to study, work, or practice any kind of activity which demands physical effort. Undernourishment is particularly harmful for women and children. Undernourished children do not grow as quickly as healthy children. Mentally, they may develop more slowly. Constant hunger weakens their immune system, making them more vulnerable to diseases and infections. Mothers who suffer from constant hunger often give birth to weaker and underweight babies, and face themselves increased risk of death.



Source: FAO.⁵

Therefore, the right to food requires the State to guarantee wage policies and social safety nets that enable citizens to realize their right to adequate food.

As acknowledged by the Committee on Economic, Social and Cultural Rights (CESCR) on their General Comment 12:

'The right to adequate food is realized when every man, woman and child, alone or in community with others, have physical and economic access at all times to adequate food or means for its procurement.'

According to the United Nations Special Rapporteur on the Right to Food, Olivier De Schutter, the Right to Food is:

'The right to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensure a physical and mental, individual and collective, fulfilling and dignified life free of fear.'

What are the key elements of the right to food?

- **Availability:** requires on the one hand that food should be available from natural resources either through the production of food (by cultivating land or animal husbandry), or through other means of obtaining food, such as fishing, hunting or collecting food. On the other hand, it means that food should be available for sale in markets and shops.
- **Accessibility:** requires economic and physical access to food to be guaranteed. Economic accessibility means that food must be affordable. Individuals should be able to afford food for an adequate diet without compromising any other basic needs, such as school fees, medicines or rent. Physical accessibility means that food should be accessible to all, including to the physically most vulnerable, such as children, the sick, persons with disabilities or the elderly, for which it may be difficult to get food out.



Agriculture School students in Bobo Dioulasso, Burkina Fasso.



Fotos: Javier Mármo/Manos Unidas

- **Adequacy:** means that food must satisfy the dietary needs, taking into account the individual's age, living conditions, health, occupation, sex, etc. For example, if children's food does not contain the nutrients necessary for their physical and mental development, it is not adequate. Food should also be safe for human consumption and free from adverse substances, such as pollutants from industrial or agricultural processes, including pesticide residues, hormones or veterinary drugs. Adequate food should also be culturally acceptable. For example, aid containing food that is religious or cultural taboo for the recipients or inconsistent with their eating habits would not be culturally acceptable.

CONCEPT OF FOOD SOVEREIGNTY

It is the right of individuals, people and communities to decide and implement their own agricultural and food policies and strategies for the sustainable production and distribution of food. It is the right to adequate, innocuous, nutritious and culturally appropriate nutrition and to produce food in a sustainable and ecological way. It is the right to have access to production resources such as land, water, seeds and biodiversity for their sustainable use. (People's Convention on Food Sovereignty, 2004.)

The concept of Food Sovereignty was introduced as a new paradigm by Via Campesina, an international movement including agricultural organisations and small- and medium- producers from 70 countries during the World Food Summit, organized by the Food and Agriculture Organization of the United Nations (FAO) in 1996. This notion is not fully accepted by the Committee on World Food Security yet. However, it is being used as a model for discussions and proposals among civil society.

HUNGER AND FAMINE

It is very common to see how the terms hunger and famine are often confused (i.e. in the media). They are, however, two different situations. Famine is an exceptional situation that usually occurs when several factors worsen simultaneously, affecting the food security of a population already suffering from hunger (it can be defined as the ultimate consequence of hunger), for example as a consequence of natural disasters or

Both food and nutritional security of the population at risk should be guaranteed during emergency situations

armed conflicts. However, hunger entails a chronic situation that prolongs over time indefinitely, and not always come after unstructured contexts produced by wars or armed conflicts (these just make the situation worse).

EMERGENCIES AND NUTRITION

During an emergency situation, when it is often the case that people cannot meet their own food needs due to disturbances and disasters, it is important to reassert the fundamental right of everyone to access safe and adequate food.



Corn drying in the sun in Mali

Fotos: Javier Mármol/Manos Unidas

Malnutrition is a common consequence that stems from emergencies, and the most vulnerable groups suffer from higher rates of morbidity and mortality associated to the lack of adequate food.

The essential right to food and to an adequate nutrition is implicit in every response to any given emergency situation and it is also reflected in humanitarian law. Nutrition must be safeguarded during and after an emergency situation. Quite frequently, in the context of extreme tension experienced during emergencies, the nutritional aspects of health and welfare are not always properly considered. Short term and poor judgement decisions are made with a lasting negative impact on the nutritional stability of the affected population. If the nutritional needs of the population during emergencies are not covered, we put at risk the ability of these people to resist and fight against infectious diseases, growth and development are interrupted, especially in the case of children and women, resulting in an increase in child malnutrition, deficient reproductive health and less successful pregnancies.⁶

THE IMPORTANCE OF WATER

The world's population is now 7,000 billion people, a figure that could increase by another 2,000 billion by mid century. By the year 2025, some 1,800 billion people will live in countries or regions with absolute water scarcity, and two thirds of the world's population could be living under conditions of deprivation.

This will be, according to many experts, the reason for the great conflicts of the future. Not only in Africa, a continent where it is estimated that 75% of the population could be in risk of suffering from hunger. The management of water is essential for the stability of food production around the world.



Water distribution in Southern Madagascar



The Sahel region in Benin

M^a Eugenia Díaz/Manos Unidas

FOOD EMERGENCIES IN THE SAHEL, THE HORN OF AFRICA AND HAITI

There are three significant and recurring “hot spots” in terms of food and nutritional insecurity where Manos Unidas has systematically supported the affected population during the last few years: the Sahel, the Horn of Africa and Haiti. Despite the fact that Manos Unidas is not an institution specialized in emergency actions, it has been collaborating, through our local partners, for almost two decades in humanitarian assistance with different populations when situations of food and nutritional insecurity take place. This support is provided in the financing of emergency and development projects. We also take actions to raise awareness about these problems in the Spanish population.

EMERGENCY IN THE SAHEL

The Sahel is a vast region in Africa, characterized by its aridity and the suffocating heat of its transitional climate between the Sahara Desert and the tropic. It has an approximate extension of 4,000,000 km² and covers parts of Mauritania, Mali, Burkina Faso, Niger, Chad and Senegal.

There are several risk factors to bear in mind in the Sahel recurrent in most African countries: its unstable climate, with recurring droughts and an unequal precipitation distribution, which in turn provokes low crop efficiency and farmers’ indebtedness, and a constant increase in food prices. For example, the price of millet in Niger for the harvest of November 2011 was 37% higher than that from the previous year.

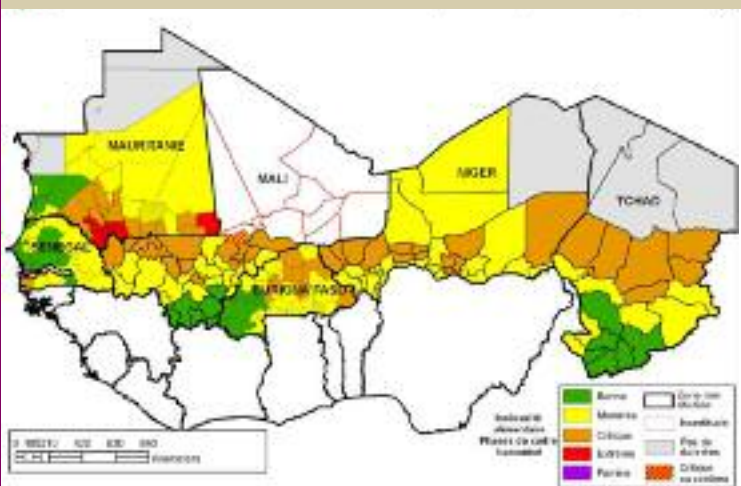
This situation is even more dramatic if we consider that these are countries where 80% of the population lives in rural areas and under a subsistence economy.

There has been drought and famine during the years 2005, 2008, 2010, and 2012.

Figures offered by different organisations are alarming. UNICEF estimates in one million the children in imminent risk of undernutrition if the international community does not mobilise.

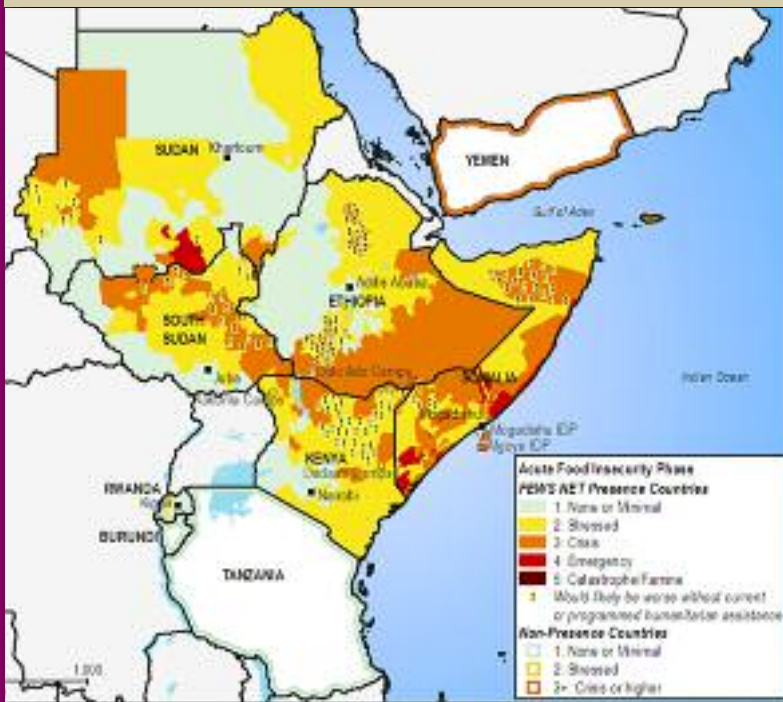
Rafael Marco, a Spanish missionary in Niger, correctly explained it in March 2012, when he narrated how in every

FOOD SECURITY PROJECTION IN WESTERN AFRICA (Sept. 2012)



Source: FAO (Dic. 2012)

**ESTIMATED FOOD SECURITY CONDITIONS
IN THE HORN OF AFRICA (Jul.-Sept. 2012)**

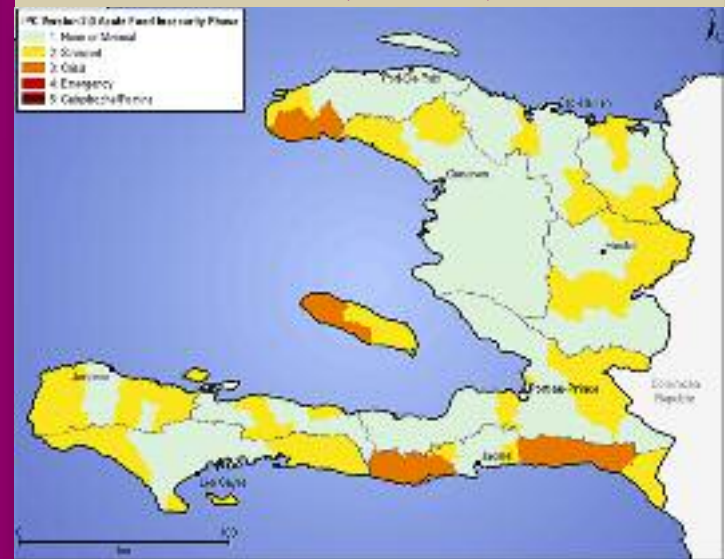


Source: Fewsnet USAID



Javier Mármol/Manos Unidas

**ESTIMATED FOOD SECURITY CONDITIONS
IN HAITI (Oct.-Dic. 2012)**



Source: Fewsnet USAID

corner of the city of Tera the nomad shepherds settled in “fortune huts”:

“Famines come and go, settle, then disappear, and then come back when no one is aware that they had gone. It is part of these people lives.”

Every year, the Sahara swallows 1.5 million hectares from countries in the Sahel, like an unstoppable hourglass advancing from North to South of the continent.

Nowadays, more than **thirteen million people** are facing **serious lack of food**. Under normal conditions, the region has recorded malnutrition rates between 10 and 15%, a percentage that can increase in some areas during emergency periods.⁷

EMERGENCY IN THE HORN OF AFRICA

The Horn of Africa is one of the world’s regions with higher food insecurity rates. Overall, more than 40% of the population is undernourished, with proportions increasing up to 70% in Eritrea and Somalia. All seven countries combined in the region – Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan, South Sudan and Uganda have a population of 160 million inhabitants, 70 million living in areas exposed to extreme shortages of food. During the last 30 years, these countries have suffered the threat of famine at least once a decade.⁸

The Horn of Africa is home to approximately 336 million ruminants. The economy and way of life of its people depend to a large extent on the production and trade of animals.

Whilst the food emergency situation in the Horn of Africa is caused by drought, conflicts and high food prices, the underlying causes of the region’s vulnerability to these disturbances are found in its poor infrastructure, lack of agricultural investments and incorrect management of natural resources.

EMERGENCY IN HAITI

Haiti is ranked the continent’s poorest country. Food needs in Haiti are covered 42-45% by national agricultural production, 45-50% by commercial imports, and 6-7% by food aid. The majority of the population has been facing for some time now a serious problem of chronic food insecurity. The proportion of undernutrition in Haiti is 58%. Before the earthquake, half of the population did not have access to the minimum food portion set by FAO.

The climate is tropical, with hurricane threats from August to October, and their effects are devastating for a large part of the population, living in slums.

On January 12th, 2010, the country underwent a tragic misfortune when struck by a catastrophic earthquake of magnitude 7.0 on the Richter scale. The earthquake devastated the capital and was a *coup de grace* for the already unsteady economy and infrastructures of Haiti, complicating even further the consolidation efforts of the nation.



M^a Eugenia Díaz/Manos Unidas

THE NEW ISSUES OF HUNGER

There are many causes for food insecurity and of diverse nature. The available data shows that hunger is produced not only by natural causes, but also by situations caused by human behaviour, resulting in a general deterioration of social, economic and humanitarian aspects. Connections between all these are complex. The causes of hunger are still the same – injustice, inequality, corruption, the fight for resources, incompetence, etc. – but we have to face them in the new context of globalization.

It is important to highlight that the vast majority of millions of hungry people depend on a small piece of land:⁹

- 7 out of 10 hungry people are small farmers or landless farmers.
- 1 out of 10 people depend almost exclusively on livestock, fishing or forests.
- Three quarters of those suffering from hunger live in rural areas, especially in Asia and Africa, where they are exposed to droughts and floods.
- Due to their dependence on agriculture to obtain food without having any other jobs, they are highly vulnerable to crises.
- Around 20% of the hungry live in slums in big cities, where hunger is increasing rapidly.

Throughout the 53 years of our fight against hunger and its causes, we have achieved many improvements, but we still have not managed to eradicate hunger. In the globalization scenario, new problems have emerged with impact on the food and nutritional security of the inhabitants of our world.

We would like to explain as simply as possible the new hunger issues we face, their effects on the poorest people, and how we can help to address this situation, including some examples of projects supported by Manos Unidas.

These food insecurity problems focus on four essential aspects:

Three quarters of those suffering from hunger live in rural areas, especially in Asia and Africa, where they are exposed to droughts and floods.

- ▲ Climate change and environmental degradation
- ▲ Biofuels
- ▲ Land grabbing
- ▲ Food prices volatility and international trade

Climate change and environmental degradation

Under this heading we will try to explore the existing links between food security, poverty, agriculture, climate change and environmental degradation.

Many people think that climate change is up to date the biggest challenge faced by the international community in relation to sustainable development.

According to Olivier De Schutter, United Nations Special Rapporteur on the Right to Food, climate change is without a doubt one of the biggest concerns, and it is being discussed at a global level. This phenomenon, clearly revealed by gradual changes in temperatures and average precipitations, implies impacts and several costs on society and on the environment in general, and will determine life conditions not only for the distant future, but also for current generations. Its consequences lead millions of people to the risks of hunger, drought and disease.¹⁰

WHAT ARE WE TALKING ABOUT?

What is climate change?

The United Nations Framework Convention on Climate Change defines it as:

“Climate change” refers to a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.’ (Article 1, paragraph 2. 1992 definition).¹¹

Climate change is directly linked to the increase in the greenhouse gas (GHG) emissions into the atmosphere as a result of industrial activities and, especially, as a result of the use of fossil fuels (coal, gas and petroleum.) If gas concentration increases over 350 parts-per-million (ppm), the average global temperature will increase progressively, causing more abrupt and irreversible changes in the ecosystems and increasingly adverse and aggressive meteorological phenomena. For this reason, United Nations strive to ensure that global average temperature does not rise more than 1.5° C, as recommended by IPCC scientists.¹²

Warming of the climate system is already obvious, as shown by increases in the air and oceans temperatures; by widespread melting of ice and snow; by rising global average sea-level and by altered rainfall patterns.¹³

These changes cause significant harmful effects on the composition, resilience capacity and productivity of natural ecosystems, as well as on their relationship with the socio-economic systems functioning and on human health and welfare.

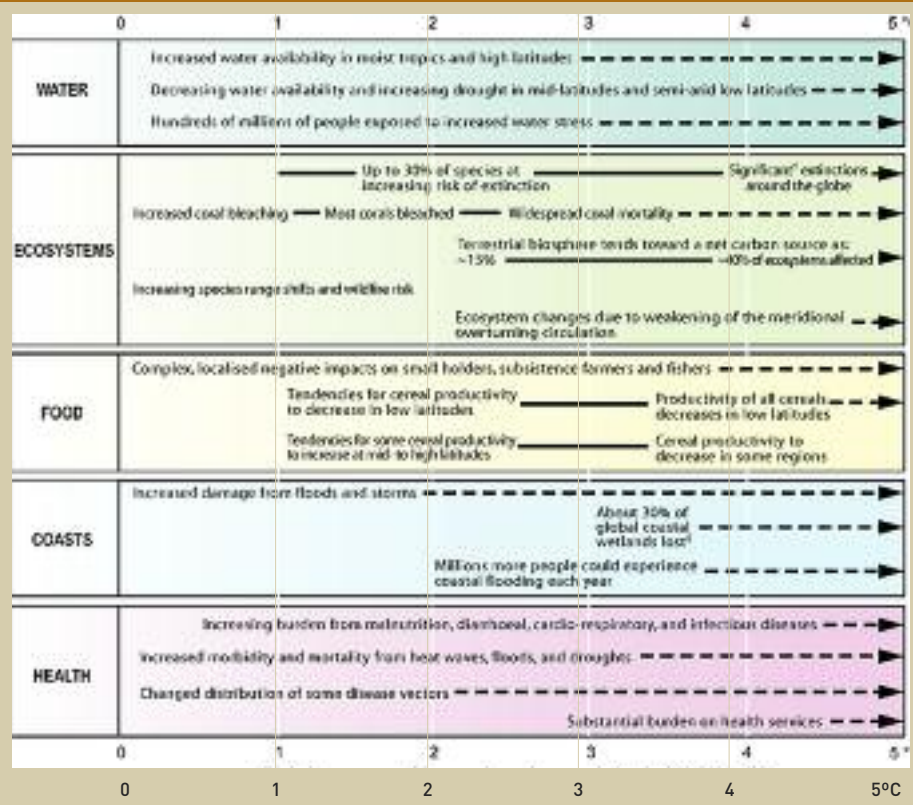


Source: MAGRAMA



Source: MAGRAMA ¹⁴

GLOBAL IMPACTS AND TEMPERATURES



Source: IPCC¹⁵

The effects of climate change on different ecosystems – marine, coastal, forest, dry land, mountain or cultivated – entail direct impacts on resource of water and food, on lands fertility and fishing possibilities, on safety against natural phenomena, on wood availability and forest regeneration, on biodiversity loss and, in general, on environmental degradation.¹⁶

And what causes environmental degradation?

Some of the main causes for environmental degradation are continuous monoculture which exhausts soil, excessive water consumption and its poor depuration, indiscriminate forest logging, fires, and an excess CO₂ in the atmosphere.

Soil becomes exhausted in its use, and it is crucial to restore it with the essential nutrients to preserve its fertility and its physical properties to keep or improve its water retaining capacity. The loss of ground cover makes soil much more vulnerable when facing extreme atmospheric phenomena (torrential rain, tornados...), creating the conditions for erosive processes generation.

Tropical rainforests, seemingly so exuberant and fertile, are in fact balanced ecosystems which feed back themselves with their own organic production. When these rainforests are cut down for crops, you can get two or three wonderful harvests and then the land's fertility becomes quickly exhausted, when the natural recycling chain is broken.

On the other hand, the predictable sea-level rise will contribute to the salinization of those aquifers near the sea, and will displace great parts of the population that live in floodable areas. It will also entail an increase in salt water levels, against fresh water levels. The glaciers retreat results in the loss of valuable freshwater reserves.

IMPACTS ON FOOD SECURITY.

THE GREATEST VICTIMS: THE POOR

The UN Special Rapporteur on the Right to Food stresses that the efforts in the battle against climate change must never lose sight of the right to food. On the other side, it is also necessary to build food systems that not only contribute minimal to

The agricultural sector has been especially affected by climate change – desertification, soil degradation, drought, floods – yet it is the livelihood for most of the poor

greenhouse gas emissions but are also resilient to extreme climate conditions. At both national and international levels, we must also rapidly create a framework for climate change mitigation and adaptation measures.¹⁷

However, the truth is that, nowadays, climate change is endangering the capacity of entire regions to produce enough food. The experts of the UN Intergovernmental Panel on Climate Change have shown the consequences that climate change and the associate alterations will have over agricultural systems all over the world and their resulting impact on food security: a pattern of unpredictable precipitations and more severe droughts and floods.

Pope Benedict XVI said on August 30th, 2009, 'To ensure that it is not the poorest that pay for climate change.' But it is obvious that it is the poor who are suffering the most from the effects of climate change and environmental degradation.



Some studies have linked climate change to population decline in many penguin species.

MANOS UNIDAS PROJECT

Vulnerability and impact reduction of natural disasters



Farmers applying rice intensification systems.

Manos Unidas

COUNTRY: VIETNAM

LOCAL PARTNER: Sustainable Rural Development

BENEFICIARIES: Rural population

COOPERATION SECTOR: Agricultural, Integral

DURATION: 12 months

CAUSES: Food speculation, hostile environment, climate change

The food security of poor families depends directly on the health of ecosystems and on the productivity these provide. These families usually don't have any secure rights over the land, water, or natural resources; neither have adequate access to information and markets, nor the possibility to take part in the decision-making process concerning the environment's resources use. The poor are always more vulnerable to natural disasters such as droughts, floods and to other impacts resulting from climate change, that weakens their capabilities to obtain livelihoods and to lift themselves out of poverty or to avoid falling into it.

The agricultural sector has been especially affected by climate change (desertification, soil degradation, drought, floods). Yet, it is from agriculture that the majority of the poor populations around the world – 75% of whom are small food producers – obtain their sustenance. They are the most vulnerable. They produce most of world's food with low CO₂ emission production practices, and yet they are the last able to face climate change.

Some figures approach us to this reality:¹⁸

- Between 1990 and 1998, 94% out of the 568 natural disasters that took place in the world, as well as 97% of the deaths related to them, occurred in developing countries.
- There are currently 870 million undernourished people in the world. It is foreseen this figure will rise, due to the increase in droughts and floods. Dry land farming production in some African countries will decrease to 50% before 2020.
- The population threatened by an increase in water stress¹⁹ due to climate change in Africa will be between 75 and 250 million in 2020. According to the Intergovernmental Panel on Climate Change, unless drastic measures are taken to change the current trend, this figure will increase to 350-600 million by 2050.

We are in central Vietnam, in Can Loc District. The communities target of this project lives on the banks of the river in one of the 10 poorest areas in the country. It is a coastal plain located below sea-level, and therefore completely exposed to frequent typhoons, torrential rains, drastic temperature drops and floods that devastatingly hit the region. Recent statistical data confirm that due to natural disasters and climate change impacts, 35% of families in Ha Tinh still live in poverty. In most cases, many of these families have not yet been able to recover from floods effects, when they have to again cope with a new climate disaster. The aim is to show them how to prevent and protect themselves from the river floods, since they are located one meter below sea-level. To this effect, agricultural training groups have been established so they can produce and store food easier, and they can use their collective marketing ability, and this way they can defend themselves from intermediaries. They have been provided as well with agricultural and livestock models better adapted to their environment. All of this has a double purpose, to improve the life of people involved, and to reduce the mangroves deterioration, as the natural barrier that protects them from floods, alleviating them, and the resource used by the population in extreme circumstances. 2,500 people benefit directly from this project and 15,000 indirectly.



Javier Fernández/Manos Unidas



Javier Mármo/Manos Unidas



Marta Carreño/Manos Unidas

- Warm climate related diseases, such as waterborne or vector-borne diseases – like mosquito, have the world’s highest mortality rates. Diarrhea, malaria and undernutrition alone were responsible for more than 3.3 million deaths in 2002. 29% of deaths were located in Africa. Well, climate change is already promoting the expansion of these typically tropical diseases to other regions in the world at higher latitudes as a consequence of changes in climatic elements such as humidity, temperature and precipitations.

Environmental degradation implies a further burden for women and children (especially girls), frequently responsible for the provision of water and fuel, thus reducing the possibilities of receiving an education or for income generating activities. Moreover, women have in general a more limited role in decision making processes, both at community and at national levels. Inequality in access to land and to natural resources limits their opportunities and abilities to produce.

On another level, climate change effects are also shown in water- and hygiene-related diseases (such as diarrhea) and acute respiratory infections (due to indoor air pollutions), which are two of the main death causes for children under five years old. Indoor air pollution or heavy loads transportation of water and wood can cause additional damage to women health. At a global level, a quarter of these diseases is linked to environmental factors, especially to air and water pollution, lack of sanitation and vector-borne diseases.

WHAT CAN WE DO ABOUT IT?

For several years now, the international community has been talking about sustainable development and poverty alleviation. It has been 25 years since on 1987 the Brundtland Report (a document from the UN World Commission on Environment and Development) laid out a vision of sustainable development to be followed, trying to integrate environment management into economic planning and decision making processes.

KEY ASPECTS TO FACE CLIMATE CHANGE EFFECTS²⁰

VULNERABILITY

The degree to which a system is susceptible to, and unable to cope with adverse effects of climate change and, in particular, climate variability and extreme phenomena. Vulnerability is a function of the character, magnitude and rate of climate change variation a system is exposed to, its sensitivity and adaptive capacity.

ADAPTATION

Refers to initiatives and measures to reduce vulnerability of natural and human systems against actual or expected climate change effects. Various types of adaptation exist, e.g. anticipatory and reactive, private and public, autonomous and planned. Examples of it are: raising river or coastal dykes, the substitution of more temperature-shock resistant plants or more sensitive ones, etc.

MITIGATION

Is the implementation of policies to reduce resource inputs and greenhouse gas emissions per unit of output and to enhance sinks (any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas or aerosol from the atmosphere).

RESILIENCE

Means the ability of a social or ecological system to absorb while retaining the same basic structure and ways of functioning, the capacity for self-organization and the capacity to adapt to stress and change.

EMERGENCY PROJECT Food production and environmental conservation



Seed planting in the project's area of influence.

COUNTRY: HAITÍ

LOCAL PARTNER: Mouvement Paysan de Papaya

BENEFICIARIES: Rural population

COOPERATION SECTOR: Agricultural

DURATION: 12 months

CAUSES: Environmental legal uncertainty

Haiti is a country with a hazardous history. Since its independence in 1844, it has suffered from continuous deforestation due to the use of wood as fuel, a fact that left the country at the mercy of the rain. More than 80% out of nine million Haitians live in poverty. It's mostly a rural population, poorly living under a farming subsistence. To this situation must be added the devastating earthquake on January 2010 which almost destroyed the capital, provoking population exodus to rural areas. This is the context for the project developed by Manos Unidas together with *Mouvement Paysan de Papaye* (MPP) in the High Central Plain. This area is populated by poor farmers, with low yield small farms, and has received and taken in more than 150,000 refugees affected by the earthquake. With the purpose of promoting food production to contribute to great food needs reduction for displaced persons and farming families who received them, Manos Unidas and MPP have agreed to undertake a joint project to help the farmers by supplying them with grain and vegetable seeds, planting stock, means of production and training courses to increase yield. At the same time, the project is promoting the establishment of small businesses for women to commercialize surpluses, as well as training of 80 community leaders in agroecology and environmental protection. Finally, there's also a planting scheme for fruit trees and forest species in the lands of the beneficiaries with the purpose to increase the area's vegetative cover by 5%. 2,700 families will benefit from this project.

The term '**sustainable development**' refers to the ability to meet our basic needs without compromising basic needs of future generations.

Given the impacts of climate changes on the world's poorest and most vulnerable around the world, and the unprecedented strains on the world's ecosystems and to decrease in the latter's ability to sustain a rising standard of living for billions of human beings, the need to speed up efforts to integrate environment into poverty reduction efforts has never been greater.

A productive and healthy environment contributes significantly to human welfare and economic development in benefit of the poor. An adequate environmental management contributes to better health, well-being and livelihood opportuni-

The term 'sustainable development' refers to the ability to meet our basic needs without compromising basic needs of future generations.

ties, especially for the poor. Intact and functioning ecosystems provide services such as the provision of food, water, fuel and fibre, as well as climate's regulation, on which nations and people rely to earn income from agriculture, fishing, forestry, tourism and other activities. Sustainable use of these ecosystem services and natural resources assets is increasingly recognized as a key factor in enduring economic development and improvement in human welfare, in the creation of decent and productive jobs, and in poverty reduction.²¹

WHAT ARE CARBON MARKETS?

They are an international mechanism seeking to reduce greenhouse gas emissions, so important in the fight against climate change.

CO₂ emissions trading, or carbon markets, is widely accepted among some politicians and company directors, as it tries to provide a solution for reducing emissions based more in the market, thus reducing the need for harsh governmental regulations.

According to an emission trading plan, a certain amount of free and marketable credits (actually, promissory notes on emission reductions) is assigned to the companies of a country or a region, allowing them to emit CO₂ up to a certain limit without penalization. Exceeding this limit, they have to buy credits to other companies through a central market operating as a stock exchange. This offers an incentive so that CO₂ emitters start behaving in a responsible manner and thus do not have to find extra money to buy more credits.

On the other side of the equation, the company selling credits to the emitter of CO₂, could have spare credits, precisely because they have already taken measures to reduce their emissions to such extent that they don't need all the free credits assigned to them at first.

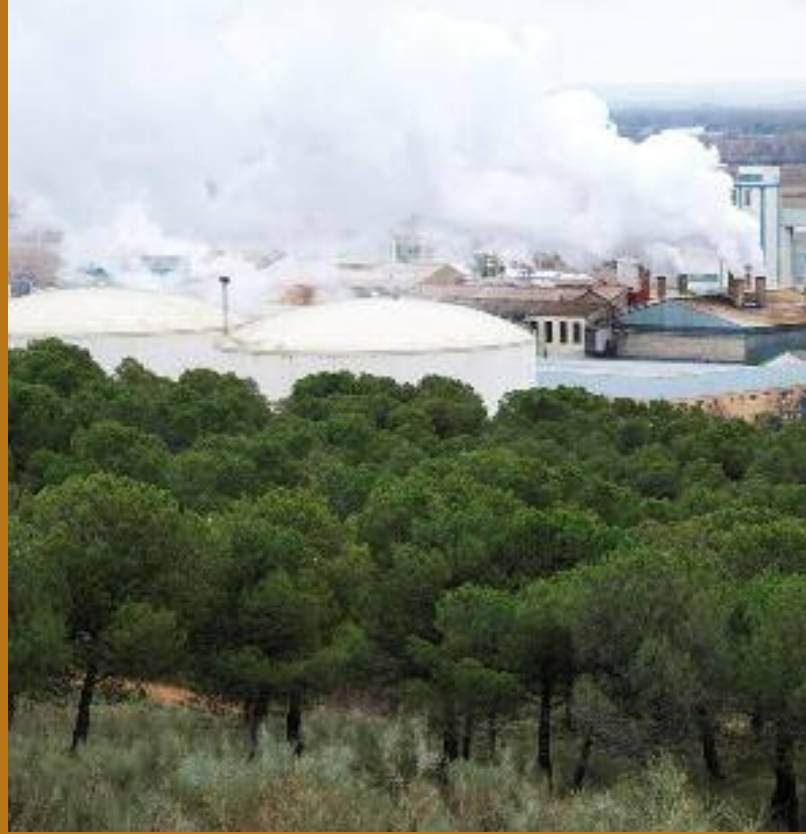
The net result of all this, presuming that a correct number of credits is assigned to companies should be that, over time, carbon emissions from industry decrease, as companies strive to reduce costs, restraining the emissions and even earning money with the sale of credits.

The major emission trading plan in the world is the EU's emission trading system. There are other smaller scattered around the world, for example, in some regions of United States and Canada. The UN runs also a plan called 'Clean Development Mechanism' that helps to generate marketable credits for industrial projects respectful with the environment in developing countries.

However, the idea has yet to take off at global level and that is a problem, because if countries do not play by similar rules, just as with other forms of emission legislation, it is probable that some polluting companies will move to areas where they do not have to pay for excess of emission trading credits. That way, they would be able to sell to the rest of the world cheaper products produced with polluting technology, thus scuppering the whole initiative sense.

The problem is the non-existing control. There are companies that grab lands to plant trees without any previous studies about the real state of these lands, not taking into account negative impacts of a new activity on water resources, flora, and fauna; and, what is even more important, on local population and how this new activity could affect their way of life.

In the meantime, big business boast about how 'green' they are, while speculating with emission rights, buying and selling at the expense of those who have been displaced by their plantations.



How can we contribute to food security given the challenges posed by climate change and environmental degradation?

First, it is crucial to acknowledge the 'right to food' approach as guidance for any action, emphasizing the moral and legal obligation to ensure that all people have the capacity to feed themselves in dignity. As the Committee on Economic, Social and Cultural Rights for the United Nations' Office of the High Commissioner for Human Rights asserts in its General Comment 12: 'The right to adequate food is realized when every man, woman and child, alone or in community with others, have physical and economic access at all times to adequate food or means for its procurement.' Therefore, this approach requires States to provide an enabling environment in which people can use their full potential to produce or procure adequate food for themselves and their families.

It is essential to encourage agriculture adaptation to climate change, and to increase resistance and response capabilities of most vulnerable groups and of food systems to cope with climate change. It is obvious that developing countries require special assistance to increase these capabilities to face other environmental challenges, such as water and waste management.

The international network CIDSE (International Cooperation for Development and Solidarity), made up of Catholic international NGOs, and in which Manos Unidas is a member organization, has recently produced a document with recommendations on how to govern climate and agricultural policies based on the right to food. The main concern is to redirect agriculture to serve its social, economic and ecological function in a sustainable way.²² The following are its most important recommendations:

▲ Investing in small-scale food production.

To increase agricultural investment and rural development by lending support to small producers and agroecological



AGROECOLOGY²³

Given the existing links between climate change, agriculture and poverty, it is essential to restore the social, economic and ecological functions of agriculture in a sustainable way.

Agroecology is concerned with the maintenance of a productive agriculture that sustains yields and optimizes the use of local resources while minimizing the environmental and socio-economic impacts of intensive practices. This is a whole-system approach to agriculture and food that links ecology, culture, economy and society to sustain agricultural production, healthy environments and viable communities.

Agroecological agricultural methods include agri-silviculture, green fertilizers, plague and disease control using natural predators, water-based harvest methods, intercropping, cover crops, cattle management, etc. This practice is in favour of the use of local resources and limits the amount of external input.

Putting agroecological technologies into practice requires technological innovations, changes in agricultural policies and socioeconomic changes, but, on top of all, it demands a better understanding of the complex interactions in the long term between resources, people and environment. In order to reach this knowledge, agriculture must be viewed as an ecological system as well as a socioeconomic system.

approaches, would enable to increase production, food security and incomes of mostly poor populations. This would strengthen the farmers' resilience abilities to climate change and would enable significant reduction of greenhouse gas emissions coming from agriculture.

▲ Support sustainable models of production

It is necessary to distinguish between the various food production models and to give them added value from the point of view of their contribution or not, to environment preservation and food security.

Large scale industrial agriculture is responsible for 30% of the emissions causing climate change (because of their high external input use of synthetic nitrogen fertilizers, methane pro-

Large scale industrial agriculture is responsible for 30% of the emissions causing climate change

duction, deforestation to expand the agricultural borders, etc.) and their ability to produce a larger amount of food does not in fact guarantee an equitable access to food, since they basically produce monocultures for exportation, and contribute to the high food prices in the international market.

To support sustainable production models means to support small producers and agroecological approaches and to promote policies that address food insecurity in its close relation to climatic and environmental crisis.

▲ Avoiding false solutions such as carbon markets and agrofuels.

Years ago, in the context of negotiations about climate change, the idea of carbon credits emerged. These allow trading

in the international markets with the exceeding emission quotas of this gas, based on production limits established for each country. Countries emitting more carbon than authorized must compensate buying emissions to other countries and, countries that stop emitting can receive financial compensation.

The intention now is to introduce agriculture into the carbon markets, but this would only entail a business opportunity for large farms (which means, large tracts of land, technical assistance, etc.) and it would mean an increase in the pressure on land, attracting new investors, to the detriment of smallholders.

Another false solution when it comes to challenging climate change is the use of agrofuels as substitutes for conventional oil, generating increased pressure on land, competition between food and fuels crops, rise in food prices, etc. But we will explore this subject in detail in a different chapter.

▲ Access to land and natural resources.

Lack of land tenure and access to natural resources is one of the key structural causes of hunger and poverty. This problem is aggravated by climate change, causing the precipitation of land degradation and the increasing scarcity of water resources. In fact, during the past 40 years one third of the world's croplands have been abandoned because of soil erosion and degradation. At the same time, scarcity of land and water attracts speculators and promotes land grabbing.

It is therefore imperative that governments protect the rights of small-scale producers to their resources and secure land tenure.

It is urgent to work for the promotion and adoption of the "Voluntary Guidelines for the Responsible Governance of Land, Fisheries and Forests" by the countries, a document produced by the Committee on World Food Security in 2012, offering different criteria and compromises for sustainable management of our resources while guaranteeing food security.²⁴



Sugarcane plantation for biofuel production

Biofuels

BIOMASS, BIOENERGY, BIOFUELS...

In recent years, the use of terms such as biomass, bioenergy or biofuels has become widespread, in relation to energy production using non-fossil organic matter. Let's specify the terms in a simple way:

- **Biomass** is the organic matter originated from a biological process, whether spontaneous or caused, that can be used as source of energy.

- **Biofuels** are non-fossil original fuels.

- **Agrofuels** are biofuels obtained as a product of energetic crops and/or agricultural by-products. These are of the most interest to us because of their influence on food security. However, the term biofuels is frequently used to refer to this issue.

This matter, however, is not new. There is a wide range of biomass sources that have traditionally been used to produce bioenergy. Fuel wood, charcoal and animal dung continue to provide important energy sources in many parts of the world. In fact, it is the dominant source of energy used for cooking for most of the world's population living in extreme poverty conditions. More advanced and efficient conversion technologies now allow the extraction of biofuels - in solid, liquid and gaseous forms - from materials such as wood, crops and waste materials. And all can be used to generate electricity, heat, combined heat and power, and other forms of bioenergy.

TYPES OF BIOFUELS

Biofuels can be classified depending their source and type accordingly.

Therefore we find biofuels delivering from food, fibres and other industrial waste.

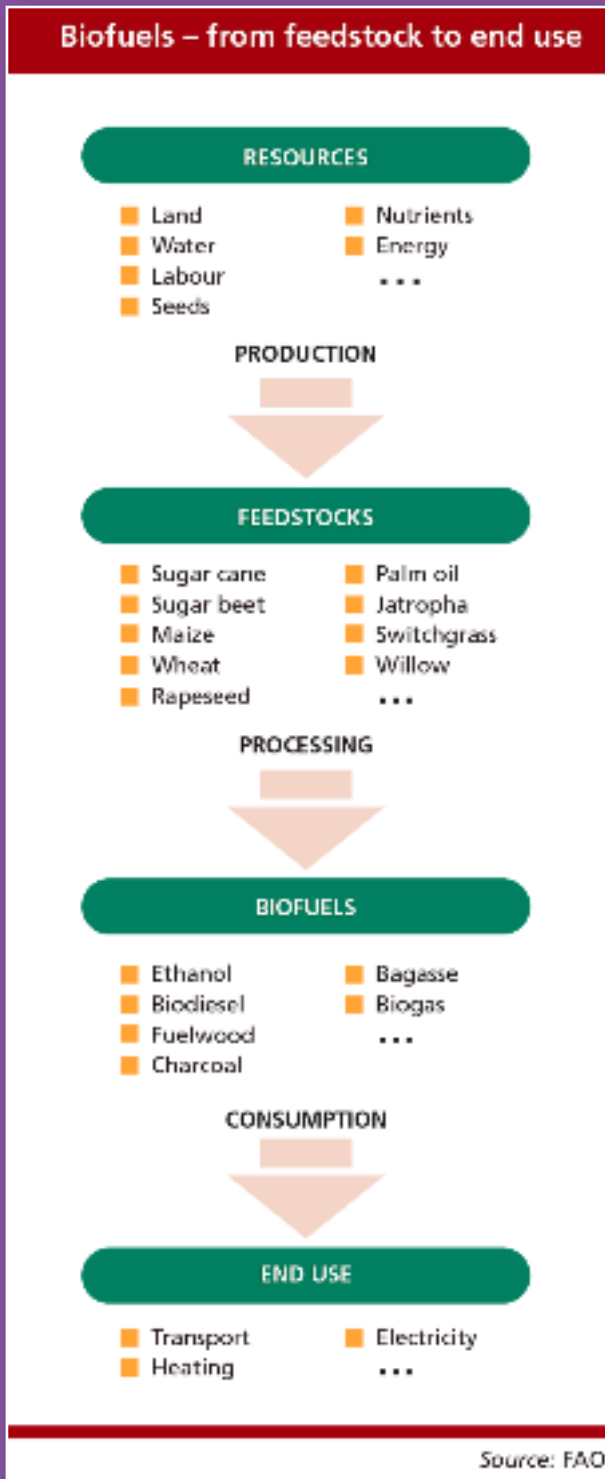
Some come from energetic crops, short-rotation crops, and agricultural and forest waste. Also from a large amount of by-products and waste from agro-industry, food industry and food-service.

And these may be solid (fuel wood, charcoal, wood pellets...), liquid (ethanol, biodiesel, pyrolysis oil) or gaseous (biogas).

A distinction must also be made between first, second and third-generation biofuels.

- First-generation biofuels come from food crops and are processed using traditional methods, like bioethanol coming from sugarcane or beetroot, or biodiesel from sunflower seeds. They have now reached a stage of commercial production.

- Second generation biofuels are elaborated from raw materials that can be turned into cellulose, like waste from food crops such as wheat or corn stalks, wood, peels... They do not compete for the use of farming land. Their methodology is still under experimentation and not economically profitable, but the speed at which technology is developing is high.



Source: FAO



Sugarcane



Fruit from the oil palms

Cynthia Nister



Jatropha plant with its fruit

FAIDUTTI/FAO

- Third-generation biofuels are mainly oils from algae (bioethanol) and hydrogen from biomass. They are still under experimentation and although still far from large scale production, they have a high potential.

Liquid biofuels for transport, produced from agricultural and food commodities have had a faster growing, in spite of their limited overall volume. The most significant are ethanol and biodiesel. Their elaboration results from the transformation of feedstock containing significant amounts of sugar or vegetable oil into bioethanol or biodiesel, which in turn can be blended with traditional petrol and diesel fuel or even replace them. Their combustion is way less polluting than conventional refinery fuels.²⁵

Nowadays, the carbon savings obtained by burning clean biofuels is frequently lower than CO₂ emitted during cultivation and transportation of these products

OPPORTUNITIES

Biofuels can be an important factor regarding energy security and sustainability, to the extent that they enable diversification of energy sources and can constitute an alternative to fossil fuels such as oil. Moreover, they can mitigate climate change by reducing greenhouse emissions (CO₂) in comparison to oil products, provided that they are produced in appropriate conditions and considering the entire life cycle.

Internal combustion engines are part of nearly everyone's lives and will not disappear in a near future. However, it is necessary to reduce the amount of harmful CO₂ emissions produced. Biofuels offer the possibility of reducing those carbon emissions without having to replace or radically alter existing transport infrastructure, nearly 100% oil-dependent nowadays.²⁶

Biofuels can contribute to agricultural and rural development with employment opportunities in associated sectors i.e. agriculture, industry, infrastructure and research.

Oil-importing countries can reduce the oil importation bill. For key biofuel producing countries, they bring new investment and trade opportunities together with the development of international markets.²⁷

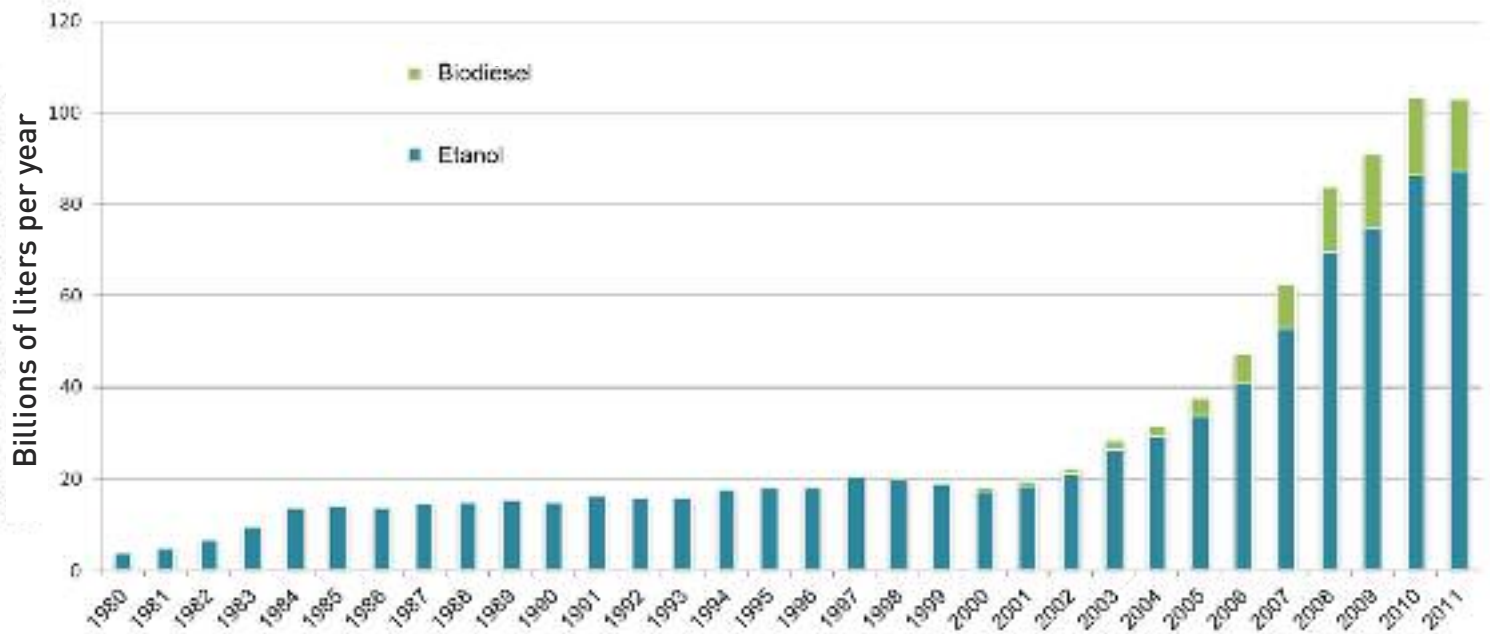
The use and production of biofuels is firmly established in most important economies in the world. The United States produce bioethanol from corn; Germany produces biodiesel from rapeseed. Brazil is the largest ethanol exporter in the world: it produces it from sugarcane and has developed flexible-fuel vehicles that can run on any proportion of gasoline and biofuels. China, India and other economies from the Asian-Pacific region are also adopting biofuels in the transportation field. Airlines (important CO₂ emitters per passenger transported) are also promoting the use of biofuels.²⁸

The production and use of biofuels generally benefits from a notable public support, whether it is in terms of duties, mandates to make blending of gasoline and diesel, or subsidies.

SOME DATA TO THINK

According to the International Energy Agency, biofuels may provide 27% of total fuel for transportation by 2050 (in comparison to the current 2%) and notably reduce our use of diesel, kerosene and fuel for aviation. Should that occur, the use of biofuels could save annually around 2.1 gigatonnes of CO₂ emis-

BIOFUELS PRODUCTION 1980-2011



Source: IAE²⁹

sions whenever they are produced in a sustainable way. This would imply significant savings given that, according to the sources, in 2011, between 30 and 34 gigatonnes of CO₂ were produced all over the world.³⁰

The same Agency points out that, in order to reach these goals, it would be necessary to use between 100 and 650 million hectares of crops to elaborate biofuels. The total area under arable production today is, roughly, 1600 hectares.³¹

According to the Agency, in 2006 an estimated 14 million hectares were growing biofuels, i.e. about 1 percent of the world's arable land.³²

The EU estimates 20-30 million hectares is needed to meet its target of 10% biofuel use for transports by 2020. It expects 60% of its supplies will be grown outside its borders.

ENVIRONMENTAL RISKS

The growth of biofuels is cause of concern for several sectors. The development of the biofuels global market (a 400% increase from 2000 to 2008) has however triggered a development of controversies at different levels and across many stakeholders (groups of states, individual business entities, environmental organizations, civil society organizations, small farmers), with the economic, environmental and social effects being widely debated.³³

It is not difficult to predict that bioenergetic crops will, in the near future, take up large forested and conservation areas. In fact, land-use change from forest areas to crops such as corn, sugarcane, palm oil, and rapeseed used for the production of bioethanol and biodiesel (the so-called "first-generation" biofuels) is already taking place.

The bio-energy market indeed requires the creation of large

industrial plantations with very efficient crop handling and important labour savings. In Indonesia, for example, the spread of oil palm plantations for the last 25 years has resulted in the clearing of 18 million hectares, although only 6 million hectares were planted to oil palm by 2006³⁴. These industrial plantations have originated deforestation in many areas, as well as huge carbon losses coming from farming of peat lands. Smallholders often loose lands and access to forest resources.

It is not difficult to predict that bioenergetic crops will, in the near future, take up large forest and conservation areas

It's still to be seen how the biofuel market will develop in ten years' time. However, nowadays, what happens is that the carbon saving obtained burning clean biofuels is frequently lower than the one emitted during cultivation and transportation of these products. This is due to the large amount of energy used directly or indirectly during the production process: irrigation, inputs, transport, and especially nitrogen (nitrogenous fertilizers necessary for production are mainly petroleum derivatives), as well as carbon loss in forests, wetlands and rich soils destined to bioenergetic crops.

Concerns have also been raised on the impact of biofuels on other environmental factors, including biodiversity, due to associated conversion to mono-cropping, to the increase of deforestation, threats to natural reserves and to increasing pressure on water supply and water quality.³⁵



The disappearance of the orangutan's habitat is one of the results of bioenergetic crops expansion.

WHAT ABOUT FOOD SECURITY?

According to the FAO High Level Panel of Experts on Food Security and Nutrition, the production and use of biofuels, with associated positive and negative impacts, needs to be considered under the food security prism. We consider this a key concept.

From the point of view of this report, the impact of certain biofuels on food security is a matter of concern.

No one can fail to see that allocating hectares of land to bioenergetic crops can result in food scarcity and overpricing. The main crops used to obtain biofuels are nowadays corn, sugarcane, sunflower, palm oil, castor oil plant and jatropha. All of them, except jatropha, are grown as food. There are many places where investments on land acquisition for the production of those crops have skyrocketed, to the detriment of food production. And the prices of these have raised due to the influence of biofuels policies.

It is reasonable to worry about the fact that, if fossil fuel prices increase faster than those of agricultural products, the interest on producing biofuels will increase even more, along with potential risk over food prices and over amount of biomass available for food and fodder.

On the other hand, it is signalled that production and use of second and third generation biofuels (from biomass to liquids and cellulosic ethanol, for example) may alleviate several of the above mentioned concerns, since it would enable their production from a wider range of raw materials: residues and waste from agriculture and forestry (fruit peels, stalks and leaves...), crops that can be grown on soils not suitable for production of food, algae, waste and residues from the food industry (oil, meat ...), organic waste... Thus, CO₂ emissions may be

MANOS UNIDAS PROJECT Improvement of production and commercialization of agroecological products



Sugarcane plantation in Brazil

COUNTRY: BRAZIL, Mato Grosso do Sul
LOCAL PARTNER: Pastoral Land Commission
BENEFICIARIES: Rural Population
COOPERATION SECTOR: Farming training
DURATION: 24 months
CAUSES: Biofuels, monoculture, mechanisation, pressure from landowners, legal insecurity

During last the last years the State of Mato Grosso do Sul (Centre-West region) is characterized by a strong establishment of big companies dedicated to the agricultural sector, and a great expansion of monoculture destined to exports (mainly sugarcane for biodiesel and eucalyptus), with severe environmental problems and strong pressure for small farmers. The exclusive monoculture spreads by promises about richness and development and convincing small farmers to get involved in. They abandon their traditional and diversified crops destined to food and sale of surplus and start producing only the product demanded by the processing factories, with high use of pesticides and chemical products. As a consequence, families that live in and for the land, loose their food security and, in a worst-case scenario, suffer persecution and violence from big land-owners. The Pastoral Land Commission, with its main action lines (land, water and rights) fights for small farmers' rights to keep their lifestyle. To this end, a program on farming training has been established that focuses on seed supply, sustainable agriculture and collective commercialization of surplus. This program benefits 800 farmers in 5 settlements.



Cada brasileiro consome em média 5,2 litros de agrotóxicos por ano. Até quando vamos engolir isso?

CAMPANHA PERMANENTE CONTRA OS AGROTÓXICOS E PELA VIDA

Apoio: Conselho Nacional de Segurança Alimentar e Nutricional (CONSEA) - Ministério da Saúde
 Ministério da Agricultura, Pecuária e Abastecimento (MAPA) - Secretaria de Defesa Agropecuária (SDA)
 Ministério da Saúde - Agência Nacional de Vigilância Sanitária (ANVISA)
 Ministério do Meio Ambiente - Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais e Renováveis (IBAMA)
 Ministério da Educação - Conselho Nacional de Educação (CNE)
 Ministério da Ciência, Tecnologia e Inovação - Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)
 Ministério da Cultura - Conselho Nacional de Cultura (CNC)
 Ministério da Justiça - Conselho Nacional de Justiça (CNJ)
 Ministério do Trabalho e Emprego - Conselho Nacional de Trabalho (CNT)



Associação Brasileira de Defesa Agropecuária (ABDA)
 Associação Brasileira de Produtores de Alimentos Orgânicos (ABPO)
 Associação Brasileira de Agricultura Familiar (ABRAF)



Flower from a sunflower

Billboard from the "Campanha Permanente contra os Agrotóxicos e pela Vida" campaign in which some of our Brazilian partners participate

reduced, and the competition between food production and biofuels may decrease significantly... However no one seems to be able to guarantee that it will happen this way...³⁶

LOOKING FOR THE FUTURE BALANCE

It is a fact that, nowadays, biofuels compete with food products very successfully, since they are, at least in the short run, a profitable investment and offer an alternative market for the producer. In contrast, they distort food markets, frequently causing increases on prices of essential foods. Fortunately, some governments and international organisations have raised the alarm and are proposing alternatives.

In October 2012, the European Commission published a proposal to limit global land conversion of lands for biofuels production and raise the climate benefits of biofuels used in the EU. The use of food-based biofuels to meet the 10% renewable energy target of the Renewable Energy Directive will be limited to 5%. This is to stimulate the development of alternative, so-called second generation biofuels from non-food feedstock, like waste or straw, which emit substantially less greenhouse gases than fossil fuels and do not directly compete or interfere with global food production. For the first time, the estimated global land conversion impacts – Indirect Land Use Change (ILUC) – will be considered when assessing the greenhouse gas performance of biofuels.

The proposal does not affect the possibility for Member States to provide financial incentives for biofuels, but the Commission considers that in the period after 2020 biofuels should only receive financial support if they lead to substantial greenhouse gas savings and are not produced from crops used for food nor feed.

Commissioner for Climate Action Connie Hedegaard said about it: "For biofuels to help us combat climate change, we must use truly sustainable biofuels. We must invest in biofuels that achieve real emission cuts and do not compete with food. We are of course not closing down first generation biofuels, but

No one can fail to see that allocating hectares to bioenergetic crops can result in food scarcity and overpricing

we are sending a clear signal that future increases in biofuels must come from advanced biofuels. Everything else will be unsustainable".³⁷

Biofuels that besides producing energy also result in the elimination of toxic residues (like used cooking oils) will be welcomed, as well as the production of organic matter-rich residues contributing to soil fertility restoration. The field is broad and possibilities huge. We need to go deeply into the possibilities offered by organic residues from crops or animal farms, or coming from sewage or food industry... The treatment of these residues can turn into a big source of energy and also provide organic matter in the form of compost and reduce cleaning invoices. This is done in some state-of-the-art garbage collecting plants: it should be the standard, but it is not common.

In order to prevent food markets distorting, it is urgent to revise the goals relating biofuels, as well as a parallel revision of the uses of already existing organic residues. The Earth, the environment and our descendants will thank us for doing so.

MANOS UNIDAS PROJECT Improvement of food security in 25 villages in India



This small plot of land is rented for vegetable gardens for family consumption and the local sale of food.

COUNTRY: INDIA

LOCAL PARTNER: Punalur Social Service Society

BENEFICIARIES: Farmers and “Dalits” or Outcasts

COOPERATION SECTOR: Farming

DURATION: 36 months

CAUSES: Pressure from landowners, biofuels, environmental degradation, price volatility

Farmers from Punalur, in the centre of the State of Kerala, having lost their lands due to pressures from landowners, are forced to subsist in leased lands. These lands in the mid and high zones of the province are at the mercy of natural disasters such as droughts or floods, due to environmental degradation, making them more vulnerable. Local production barely covers a quarter of the community’s consumption needs. Food production is insufficient and sales prices, low. Furthermore, the neighbours that used to send their surplus are no longer doing so because they have changed to crops such as biofuels. Food prices have skyrocketed and the poor need to fight for survival. Manos Unidas together with the local partner has launched a training program on sustainable agriculture techniques, management of natural resources such as water, tree plantation, creation of common interest groups and creation and management of microenterprises. Number of direct beneficiaries for this project is 7,500 people.

Fruit from castor oil plant

Corn plantation

Jatropha plantation

FAIDUTTI/FAO

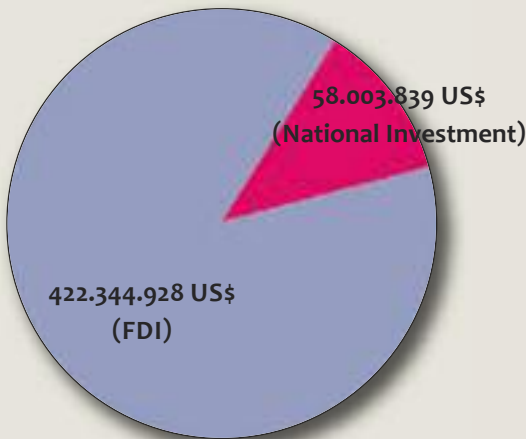


Plantation in the South of Madagascar

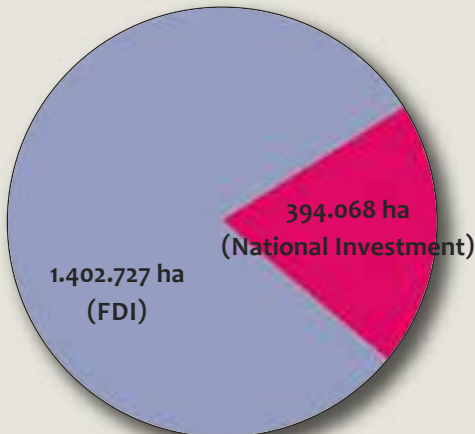
Javier Mármol/Manos Unidas

DISTRIBUTION OF FOREIGN AND NATIONAL INVESTMENT IN ETHIOPIA, GHANA, MADAGASCAR AND MALI (2004-2009)

Foreign and national investment in land (US\$)



Foreign and national investment in land (ha)



Source: FAO 2009³⁸

Land grabbing

The land grabbing phenomenon has always existed. But at the beginning of the 21st century it has been taken place at a horrifying rate.

Over the last years, private investors and governments have shown growing interest in the acquisition or long-term lease of large proportions of arable land (above 1000 hectares) in developing countries.

Behind this phenomenon is the fight for natural resources and land rights (state-owned, private and communal).³⁹

SOME REVEALING FIGURES

The figures that attempt to measure the phenomenon of large-scale acquisitions and leases of land in developing countries differ considerably.

According to a 2011 report of the High Level Panel of Experts on World Food Security (CFS), around 50-80 millions of hectares may be in negotiations to be transferred to investors, mainly private or foreign.⁴⁰

The International Food Policy Research Institute worked out that in developing countries between 15 and 20 million hectares have been subject to negotiations of foreign investors since 2006. This figure is equivalent to the total surface area of agricultural land in France and one fifth of all agricultural land in the European Union.

In 2011, Intermon Oxfam reported that, in the previous 3 years, developing countries sold 227 million hectares. In Africa, the volume of land grabbed is over 70 million hectares.⁴¹

Let us recall that, according to FAO Report "The State of the World's Lands and Water", in 2011 the total surface of crop lands in the world was 1,600 million hectares.⁴²

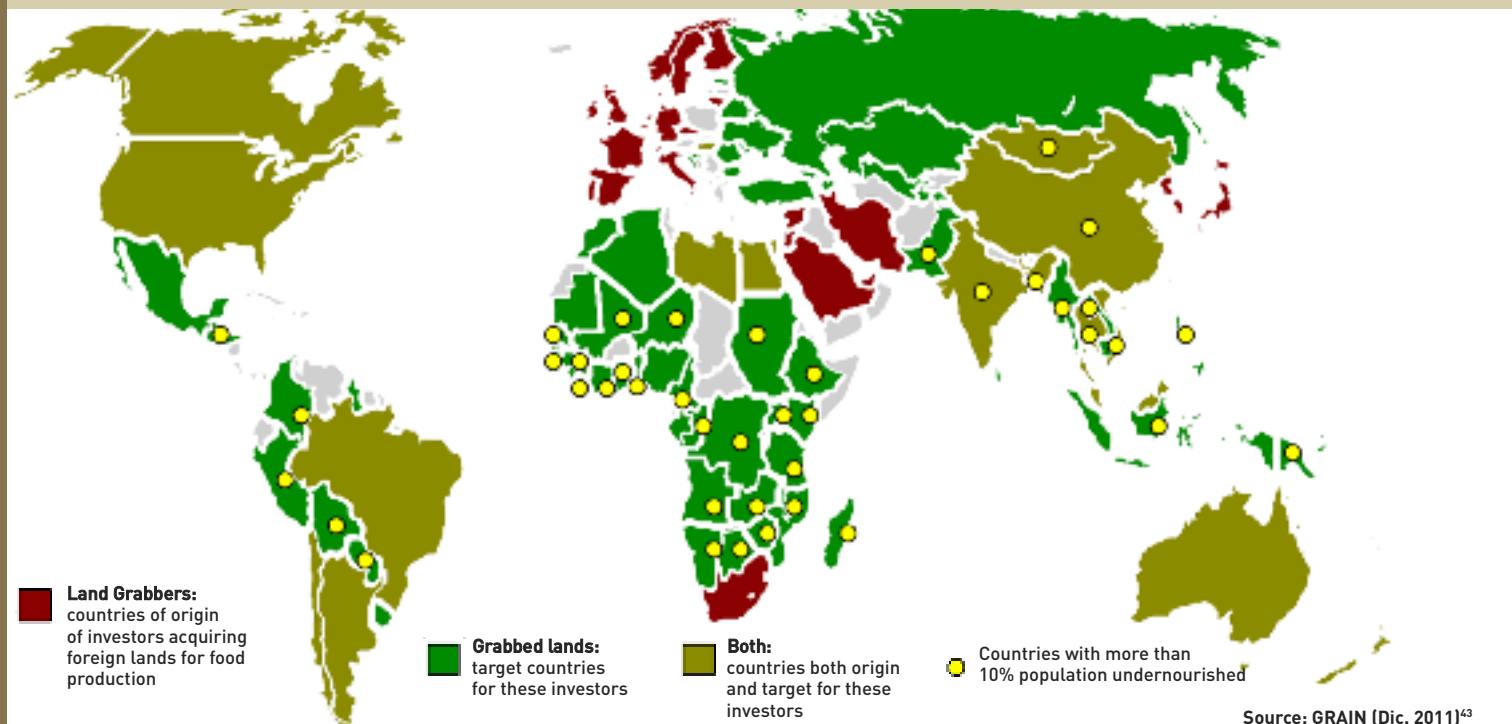
WHERE?

In Sub-Saharan Africa the countries in which more operations have been registered are: Cameroon, Ethiopia, the Democratic Republic of Congo, Ghana, Madagascar, Mali, Somalia, Sudan, United Republic of Tanzania and Zambia.

However, there have also been important transactions in countries from other continents, such as Brazil, Cambodia, Indonesia, Kazakhstan, Pakistan, Philippines, Russian Federation and Ukraine.

Developing countries in general and Sub-Saharan African in particular, are considered a good option by investors because of the perception that there is plenty of land available, because its climate is favourable for the production of crops, because local labour is inexpensive and because land is still relatively cheap.

GEOGRAPHY OF LAND GRABBING



The land with the highest demand is the one near to water resources that can therefore, be irrigated at a relatively low cost, and also the one closest to markets, facilitating the exportation of products.

A joint study of FAO and the International Institute for Applied Systems Analysis (IIASA) from 2002 pointed out that, given that 95% of the cropland in Asia has been already utilized, the demand for arable land in the coming years will concentrate in Latin America and Africa. Indeed, it is in these regions where most of the world's reserves of agricultural land (up to 80%) are located.

The land with the highest demand is the one near to water resources that can therefore, be irrigated at a relatively low cost

WHAT FOR?

There are several causes that explain the development of land leases or acquisitions:

- The rush towards the production of agrofuels as an alternative to fossil fuels, encouraged by fiscal incentives and subsidies in developed countries.
- The growth of population and urbanization, combined with the exhaustion of natural resources in certain countries where, therefore, large-scale land acquisitions can be seen as a means to achieve long-term food security.
- Increased concerns of certain countries about the availability of freshwater, which in a number of regions is becoming a scarce commodity.

- Increased demand of certain raw commodities from tropical countries, particularly fibre and other wood-derived products.
- Expected subsidies for carbon storage through plantation and avoided deforestation. See box "The carbon markets".
- Particularly, as far as private investors are concerned (including big investment funds), speculation on future rises of the price of farmland.
- The exploitation of mineral resources such as gold, petrol, coltan, diamonds... In these cases, land-grabbing is usually produced by European, North American, Chinese, Korean and in general developed-country companies.

Land monopolisation has accelerated since the beginning of the global food crisis (2007-2008), because the markets for agricultural commodities were seen to be increasingly unstable and volatile, and therefore less reliable for net-food-importing countries, particularly following the decision by a number of large food exporting countries to ban exports or to raise export levies during the Spring of 2008.

As a result, resource-poor but cash-rich countries have turned to large-scale acquisitions or rent of land in order to achieve food security.

The link below shows a video by Helmer Velásquez from CONGCOOP (Coordinación de ONGs y cooperativas en Guatemala – NGO and Cooperative Coordination in Guatemala) gives a brief explanation on land-grabbing and agrofuels and how they affect food and nutrition insecurity in Guatemala.
<http://www.youtube.com/watch?v=4hnB50YWECg>

OPPORTUNITIES and RISKS

For many years, agriculture has been neglected, both in domestic public policies as well as in development cooperation, and has failed to attract foreign direct investment, particularly in Sub-Saharan Africa. It is in principle positive that this is changing.



Marãiwatsédé, where Xavantes live, is the most devastated indigenous territory in the whole Brazilian Amazon

Investment increase in rural areas can be particularly effective in reducing poverty, with job creation (farm and off-farm), technology transfer and better access by the local producers to domestic, regional and international markets, and increase of public income through taxes and export rights. Countries acquiring or leasing land to grow staple crops can increase food security, since they are less dependent on international markets to acquire the food they need to feed their populations.

But, this situation of large-scale land acquisitions entails considerable economic, social and environmental risks.

The most important risk is that the right to food of the local populations may be adversely affected.

Indigenous people, small farmers, women and special groups like shepherds, small stockbreeders and fishermen are the most affected and over whom relies a growing pressure, as they lack of recognized land rights.

Many rural families depend on the combination of shifting cultivation, stockbreeding and forest resources to survive in a changing environment. Numerous recent land acquisitions by big investors have caused the **displacement** of these homes, something that has negatively affected the means of livelihoods, **food security** and access to essential resources at a local level. Many of these people have to emigrate, losing their homes.

Women are also very vulnerable to this land-grabbing phenomenon, since they must fight against constant discrimination regarding access, property and control over land, as well as the protection of their land rights.

Water loss: local population loses or has difficulties for access to water, either due to water level decrease, river courses deviation, and water pollution, all derived from new crops. For instance, Horne (2011) examined the flower industry in Ethiopia, nowadays second biggest rose producer after Kenya, and observed environmental impact of insecticides and fertilizers use on the quality of degraded water and waste elimination.

The abandonment of traditional crops that fed its settlers. These crops are replaced by corn, sunflower, sugarcane or jatropha. All of them, except for jatropha, require large amounts of water. Therefore, on top of the misfortune of losing the land, we need to add the decrease in the water flow available and its more than plausible pollution from pesticides. In addition we need to incorporate the distorting effect of food prices, caused by agrofuels.

Another substitute is eucalyptus. Among its noticeable properties, is its extraordinary capacity to find water and consume it. It is one of the favorite trees among those looking for CO₂ credits because it is a very efficient biomass producer. Unfortunately, its effect on fauna and flora is horrible; it acidifies the soil and reduces biodiversity displacing native fauna and flora.

Indigenous people, small farmers, women and special groups like shepherds, small stockbreeders and fishermen are the most affected and over whom relies a growing pressure, as they lack of recognized land rights

Soil erosion, an issue touching both large and small farms. When big areas are prepared for-cultivation, there are practices like tree removal, use of herbicides and extraction of ground water, that if they are made in a very intensive way, generate erosion processes that lead to desertification, rendering the soil incapable of defending itself from climate-related phenomena.

MANOS UNIDAS PROJECT Strengthening food sovereignty and territorial management



The Xavante native chief Damián Pariadné in the Río+20 Summit

Marco Gordillo/Manos Unidas



Land property related conflict in Brazil

C.I.M.I

Deforestation: new crops require sunshine, and therefore the cut down of the forests. In Indonesia, approximately 70% of palm oil plantations are located in old forestlands. More than half of the growth between 1990 and 2005 has been undertaken at the expense of forests.

Big plantations also tend to concentrate on just one crop, which implies introducing **single crop farming** in formerly biodiversity-rich habitats and that in turn constituted the economic basis of small-scale local production.

We cannot fail to mention the risk of new **conflicts** and/or the increase in already existing ones because of the fight for land. National land acquisition, as well as foreign investments in land, are up-scaling an historical problem related to land distribution. The Gini coefficient* of countries like Brazil or Ecuador among many others, clearly shows the historical process of land concentration. Moreover, the dispossession and displacement caused by these large investments will worsen the already problematic conditions of land distribution in many countries, and it is likely that they will bring about even more conflicts and violence.⁴⁴

* The Gini coefficient is a way of measuring income inequality but it can also be used to analyse any kind of unequal distribution, including wealth. It is a number between 0 and 1, where 0 corresponds to perfect equality (everyone has the same income) and 1 corresponds to perfect inequality (one person has all the incomes and the rest get nothing).

COUNTRY: BRAZIL, Amazon
LOCAL PARTNER: Operação Amazonia Nativa
BENEFICIARIES: Indigenous people
COOPERATION SECTOR: Social, Integral
DURATION: 12 months
CAUSES: Land grabbing, food speculation, hostile environment, environmental degradation

The land of Xavantés indigenous people is situated between Araguaia and Xingu. During the years of the 'developmentalism' they were expelled from their land (1.000.000 Ha) so that these could serve the livestock interests. Since their expulsion in the 60's, the Xavantes have demanded their land to be given back. In 1992, the land owner (AGIP at the time, an Italian company) decided to give back the land to the natives. It took 6 years for the Brazilian State through FUNAI (Indigenous Affairs Office) to recognize the territories as indigenous. At the same time, corrupt businessmen and politicians tried by all means to stop this return. Finally, in 2004 and after much suffering, the Xavantés recovered 15% of the original land. They discovered, however, that 90% of the vegetation cover had disappeared and that the land their fathers and grandfathers had left behind 40 years ago was not the same. It is now key for the Xavantés to recover the degraded environment, to learn to adapt themselves to a new environment and especially to recover their dignity. Specifically, the aim is to develop activities that contribute to ensure the community's food security and to promote sustainable practices of their own land (agriculture, harvesting, hunting and fishing techniques, fire management, seeds, environmental education...). The beneficiaries are the Xavanté natives from Maraiwatsede, which make a total of 759 people.



Children in North Ethiopia

Marta Carreño/Manos Unidas

WHAT CAN WE DO?

It is of utmost importance that negotiations leading to agreements over land purchasing or leasing comply with a number of procedural requirements ensuring **informed participation of the local communities** and, therefore, adequate benefit-sharing, and that the agreements themselves take into account human rights which could be negatively impacted by such in-

We must raise our voices in the face of land grabbing, denouncing land right and right to food violations, as well as the opacity in agreements and lack of information of local population about their conditions

vestment. Agreements to lease or cede large areas of land in no circumstance should be allowed to trump the **human rights** obligations of the States concerned. Foreign companies should be required to apply the same environmental and labour regulations currently in force in their countries of origin.

Furthermore, they should make environmental and social impact evaluations in the areas of influence.

Olivier De Schutter, UN Special Rapporteur on the Right to Food, proposes a set of core principles and measures that host states and investors should adopt. According to him, negotiations leading to land acquisitions and leases comply with a number of procedural requirements, including the informed participation of local communities.⁴⁵

A UN Report of the Special Rapporteur in 2010 holds that access to land and security of tenure are essential for the enjoyment of the right to food. The strengthening of customary land tenure systems and the reinforcement of tenancy laws

could significantly improve the protection of land users. Drawing on the lessons learned from decades of agrarian reforms, the report emphasizes the importance of land redistribution for the realization of the right to food. It also states development models that do not lead to disruptive shifts in land rights and increased land concentration should be prioritized.⁴⁶

In this regard, CIDSE (International Cooperation for Development and Solidarity, Alliance of Catholic Organizations which Manos Unidas is member) stands that support must be given to the implementation of the Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests of the FAO which promotes and protects land tenure for small producers and pastoralists. These guidelines are the expression of an international consensus led by the FAO and their overarching goals are to achieve food security for all. They were endorsed by the Committee on World Food Security (CFS) at its thirty-eighth (Special) Session on May 11th, 2012.⁴⁷

We must raise our voices against land grabbing, denouncing violations of rights in relation to land, especially regarding the right to food, as well as opacity in agreements and lack of information of local population about their conditions.

It is essential to ensure the honesty in transactions and the respect to local inhabitants and their needs. To this end, there are specific instruments.

We must review the European Union's and other developed nations policies' regarding the agrofuels production and CO₂ credits.

Food prices volatility and international trade

THE GLOBAL FOOD PRICE CRISIS

Between 2005 and 2008, the world's staple food prices soared to their highest levels in 30 years. During the last 18 months of that period, maize price increased by 74 percent while that of rice almost tripled, climbing a whole 166 percent.

Food riots broke out in more than 20 countries. Editorialists decreed the end of cheap food. But then, after peaking in June 2008, prices slumped again – falling 33 percent in six months – largely as a vast financial and banking crisis threw the global economy into recession.

The downturn was short-lived, however. In 2010 grain prices shot up 50% and continued to soar into 2011 before starting to dip somewhat in the second quarter of 2011. And at that point what would happen next was very much an open question.

Economists believed, however, that the kind of price rollercoasters experienced since 2006 are likely to recur in the coming years. In other words **food price volatility** – the technical term for the phenomenon – has probably come to stay. That is not good news.

Price swings, upswings in particular, represent a major threat to food security in developing countries. Hardest-hit are the poor. According to the World Bank, in 2010-2011 rising food costs pushed nearly 70 million people into extreme poverty.

The United Nations World Food Program (WFP) has said that high food prices are creating the biggest challenge that WFP has faced in its 45-year history, a “silent tsunami” threatening to plunge more than 100 million more people into hunger and poverty.⁴⁸

THE “WHYS” OF THIS GLOBAL CRISIS

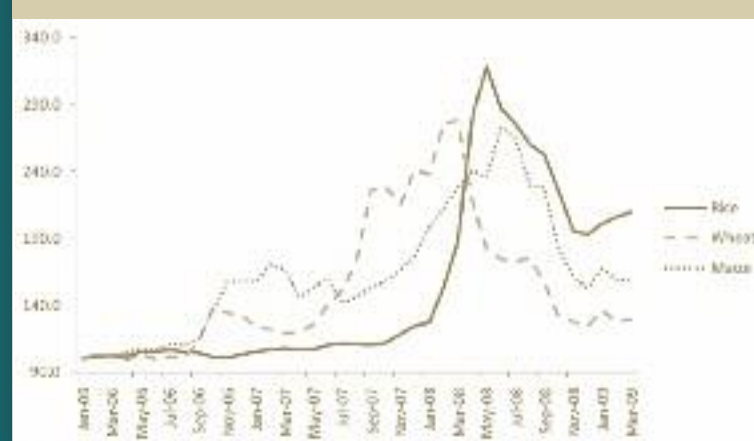
The global food price crisis that took place during 2007 and 2008 and that still affects many developing countries had several causes.

The initial causes were due to markets fundamentals, including imbalances between demand and supply in food commodities, transportation and storage costs and an increase in the price of agricultural inputs. The increasing demand of food due to growing world population and a decline in agricultural investment also played a major role.



Ángel Álvarez

INDEX NUMBERS OF WORLD TRADE PRICES



Source: FAO (2009)

Depleted soils and aquifers and the loss of biodiversity (derived from climate change) are often noted as contributing factors. Climate-related events like droughts, floods and environmental degradation generally have further negative effects on many developing countries.

Volatility is directly related to the rapidly increasing oil prices and diversions of maize to ethanol production (and the subsequent land grabbing for this purpose).

However, a significant portion of the increases in price and volatility of essential food commodities can only be explained by the emergence of a speculative bubble. Indeed, the speculative bubble has been a determining factor in the crisis affecting food commodities prices. The entry into markets for



Corn plantation in the city of Davao, Philippines.

Javier Marmol/Manos Unidas

derivatives based on food commodities of large, powerful institutional investors such as hedge funds, pension funds and investment banks, all of which are generally unconcerned with agricultural market fundamentals, was essential. Such entry was made possible because of deregulation in important commodity derivatives markets beginning in 2000. Commodities markets are becoming increasingly interesting for financial speculators.⁴⁹

And what's more, the crisis exposed underlying structural problems in the food systems of poorer countries, partly linked to serious distortions in world food markets (associated with production subsidies in rich countries and trade tariffs), that predispose to price spikes and problems with food availability.⁵⁰

Food Trade and Futures markets

It is not necessary to define trade, since we are all familiar with it. In contrast, we may know nothing about the set of factors that allow to be better or worse supplied. Let us mention only some of the necessary factors: existence of communication networks (roads, railways, airports, harbours, telephone, internet...), power supply storage capacity, the existence of suppliers and distributors, health guarantees, transparency, funding, legal security, water supplies... If any of these factors fail, supply problems may arise. If power fails, refrigerators will turn off and food will rot; without any financial security, purveyors won't supply; without any roads, food won't reach its destination; if it doesn't rain, there is no water and, as a consequence, crops will be affected; without any competition, the dealer fixes prices at his own will; if regulators fail, speculations will be made with future food prices, like in the stock market; if the prices of raw materials rise, so will the food prices and so on to infinity.

This is not to mention futures markets where dealers buy future harvests. Originally, this was meant to ensure financing for cultivation. It should be taken into account that agriculture is not a business like any other: it is subject, among other factors, to the climate variability. The farmer can do everything right and even so lose his harvest because of a frost, torrential rains, droughts... Obviously, the buyers of agricultural futures are aware of the situation and take precautions. The problem arises when futures market begins to attract attention of investors outside the food market. The shortage of crops in the

The financial deregulation of the last decade has for the first time in history, transformed food commodities into real financial assets

last years and the current drought predict rising prices in basic food commodities. Followed by investors finding the propitious place to make quick profit and having turned futures market into a speculation roulette. Let us recall that food security is a right, and therefore, it is a duty of governments to guarantee the fulfilment of this right. One of the steps for this should be the regulation of futures markets, preventing speculation.

Speculation

The financial deregulation of the last decade has for the first time in history, transformed food commodities into real financial assets. Speculative capital is being structurally intertwined



M^a Eugenia Díaz/Manos Unidas

MANOS UNIDAS PROJECT Creating a centre to transform local cereal productions



Manos Unidas

Products elaborated at the cereal transformation centre, ready for sale.

COUNTRY: MAURITANIA

LOCAL PARTNER: Association to Support Informal Production Groups (AGPM)

BENEFICIARIES: Women

COOPERATION SECTOR: Social

DURATION: 12 months

CAUSES: Food speculation, hostile environment

with productive capital. And this financialisation of agricultural markets is not strengthening the global food system but rather weakening it and contributing to volatility and increased prices.

Speculative funds in the futures markets have dramatically increased. When the financial crisis flared up in 2007, speculators suddenly fled risky financial assets and poured unprecedented amounts of money into commodities markets, creating a “global food price bubble”. This resulted in a new category of ‘index speculators’ participating in the commodity futures market. These “new” speculators include, among others, corporate government and pension funds, sovereign wealth funds and university endowments, that have a great influence on markets.⁵¹

Trade and agriculture policies

Agricultural and trade policies from the EU and the US are among the main root causes of the current food crisis. For decades, directly or indirectly subsidised exports of agricultural products have been undermining market access for farmers in developing countries and putting downward pressure on world market prices. Subsidies of European wheat, beef, milk powder, and more recently tomato paste, pork and chicken parts has a direct impact on the right to food of farming communities in developing countries, especially in Africa. The release of highly subsidized European products are exported and sold at artificially very low prices, which local producers cannot compete with (the so called “Dumping”).

Short-side trade policies aggravated the problem. In 1995, import deregulation was reinforced through the WTO Agreement on Agriculture. Bilateral Free Trade Agreements already signed or in a negotiation phase, demand totally abolishing of import tariffs for 80 to 90 percent of products, to open up retail for Foreign Direct Investment (FDI) and to tighten Intellectual

In this Southern area of Mauritania, mainly Muslims, women play a secondary role. Nonetheless, they get together in women’s associations to try and help in domestic economy and to get trained. A number of cooperatives (initially 12, nowadays 22) formed a union in 2002 under the name Sahel Group of Dry Cleaners (GATS). They became specialized in several income generating activities. They try to improve the quality of their products and diversify their sources of income, together with initiating new activities. This group presented a project to AGPM for the creation of a centre for the transformation of local cereal productions (corn, sorghum, millet) into flours, pasta, semolina and other derivatives. These offer the benefit that they can be stored for a long time and can therefore face the abusive prices fixed by the local distributors to their liking without any competition. These initiatives contribute to improve both, food security and local food sovereignty. 600 women are directly benefited from this project, plus the indirect benefit also to their families.



A Mexican family working in the field.

M^a Eugenia Díaz/Manos Unidas



Pilar Artéche/Manos Unidas

Property Rights (IPR) of agribusiness companies regarding seeds. In the long run, this entails negative effects for developing countries. Common Agricultural Policy (CAP) is credited as one of the main factors for African countries to become net food importers.

The UN Committee on World Food Security study on price volatility warns that liberalization of markets has increased transmission of international price volatility to domestic markets.⁵²

HOW DOES ALL OF THIS AFFECT FOOD SECURITY?

In developing countries, where nearly 70% of household expenditure can go to food (10-12% in rich countries), the volatility problem takes on dramatic dimension and can contribute to perpetuate the cycle of poverty and hunger. Without adequate safety nets, more and more people slip into the abyss of poverty. According to the Interagency Report commissioned by the G20, poor households find their nutritional status, as well as their capacity to purchase education, healthcare and other basic needs compromised when food prices are high.

Ways in which the most badly affected are coping with the situation include eating poorer quality and less preferred foods, eating smaller quantities and fewer meals and consuming less diverse diets. Women fiercely feel the impact of this at the household level, as they cope more directly with children's feeding. The situation forces women to search for new ways of providing food for their families, often at the expense of their own diets.

This situation leads to food insecurity and malnutrition, with dramatic effects both in the short and long term. Malnutrition increases disease and mortality rates, reduces productivity and produces severe effects that last a lifetime, especially on children. The strong increases in prices also limit capacity of poor

households to cover other non-food related costs, such as education or healthcare.

In Olivier De Schutter's opinion, trade did not feed the hungry when food was cheap and abundant, and is even less able to do so now that prices are sky-high. The G20 has acknowledged that excessive reliance on food imports has left people in developing countries increasingly and dangerously vulnerable to price shocks and food shortages.⁵⁴

“Global food prices are at new record levels... There is little point in helping Least Developed Countries to grow basic food, other commodities, manufacture products and develop services if they cannot fairly trade in the global marketplace”⁵³

(United Nations Secretary-General, Ban Ki-moon)

For developing countries, in times of exacerbated volatility and exorbitant prices, imports cannot be the cornerstone of any sustainable food security strategy.

According to the High Level Panel of Experts Study commissioned by the UN Committee on World Food Security, there is ‘no need to boost agricultural growth (but rather an) urgent need to guide that growth towards long term food security’.

Hence, it is misleading to relinquish the responsibility of the ‘food crisis’ to production considerations alone, as it is also very much a matter of access and distribution.⁵⁵

MANOS UNIDAS PROJECT

Creating sustainable farms and agricultural structures



Test with beans and soya, “before and after”.

COUNTRY: TANZANIA

LOCAL PARTNER: Agrónomos Sin Fronteras

BENEFICIARIES: Rural population

COOPERATION SECTOR: Farming

DURATION: 14 months

CAUSES: Environment degradation, lack of basic infrastructure

WHAT SHOULD WE DO AND WHAT CAN WE DO?

The current situation invites to think about the regulations that can help in the fight against food insecurity and to achieve full exercise of the right to food.

In this sense, some measures that may recover capacity for local food production in developing countries are: increase in tariffs, temporary import restrictions, and the possibility that small producers can sell their crops to the State, active marketing boards, security network systems and special subsidies on agriculture.⁵⁶

Meaningful sustainable agricultural development, through investing in smallholder farmers, is therefore the best way to build resilience into production systems and reduce the vulnerability of developing countries to prices fluctuations on international markets.

There is a need to improve the governance of foreign investment in agriculture with a view to safeguarding the interest of local food producers, protecting natural resources and guaranteeing the Right to Food, whilst supporting sustainable agricultural investment.

There is an urgent need to re-localise food markets and de-concentrate the food supply and retail chains.

Governments must urgently address the issues of waste in the food system including post harvest losses.

Reinforcement of food reserves and stocks

The recent food crisis has made the need to reinforce food stocks at local, national and regional levels even more urgent. It is a necessary measure to limit price volatility and speculation as well as a means of creating a favourable environment for local producers, particularly small farmers.

Over the last 10 years world stocks have become increasingly depleted, reaching an all-time low in 2011. Moreover, the



Farmers working on a rice plantation in Cambodia

Kike Figaredo

relationship between food reserves and price volatility is well established. Low stocks lead to price spikes and therefore, increased volatility. Stocks play a dual role, for humanitarian distribution (emergency stocks), as well as for market stabilisation (buffer stocks). The former is fundamental in emergency situations which unfortunately are increasing with climate change, as seen in the recent famine in the Horn of Africa. The latter allows for some degree of protection for poor consumers against external price shocks, especially important for countries with high dependence on food imports.

If transparently managed, buffer stocks help smooth prices between periods of good and poor harvests, and food reserves should support local stock holding at farm and community levels.

It is the responsibility of states to promote food policies that guarantee supply and diversity by including other crops than three main cereals (rice, wheat and corn). Food reserves should be regulated at the national levels and not be determined by private sector interests. These must be governed in an inclusive and participatory way where small producers and poor consumers can participate in their governance.

Emergency stocks and food aid should be in support of local food systems and should not respond to the needs of donor countries. The Agricultural Market Information System (AMIS) initiative proposed by the G20 is already a step in the right direction.

Caution should be taken to avoid overstocking in developed countries as these eventually get released into the international markets and find their way into developing countries where they compete directly with local production. Small farmers in developing countries, who are unable to compete with the

lower prices of the subsidised products from the North, find themselves squeezed out of their own markets, compromising local agricultural production and threatening livelihoods. This is an important point.

Many developing countries see their food import bills climb whilst a part of their own production is being wasted, due to

There is a need to improve the governance of foreign investment in agriculture with a view to safeguarding the interest of local food producers, protecting natural resources and guaranteeing the Right to Food, whilst supporting sustainable agricultural investment

lack or poor storage facilities. The FAO notes that 30 percent of harvests, and up to 40 percent in Africa, are wasted. Efforts to improve post harvest handling and management on farm and beyond are long overdue, starting with small farmers.⁵⁷

Trade and agricultural policies and the right to food

Detrimental agricultural policies and practices are at the core of food insecurity. The sector is multifunctional and its influence

WORLD FOOD DAY

On the occasion of World Food Day in 2012, Pope Benedict XVI made public a message in which he stated: “The effects of the economic crisis are increasingly affecting primary needs — including the fundamental right of each person to sufficient and healthy food — and are aggravating in particular the situation of those who live in conditions of poverty and underdevelopment. It is a context similar to the one that inspired the creation of the FAO and which demands the commitment of national and international institutions to free humanity from hunger through agricultural development and the growth of rural communities. The gradual disengagement and excessive competition that are in fact being brought to bear on malnutrition, risk causing people to forget that only shared, common solutions can provide adequate responses to the expectations of people and peoples”.

According to Benedict XVI: “Agricultural cooperatives have an alternative view to those economic models determined by internal and international measures, which seem to have as their sole aim profit, the defence of markets, the non-alimentary use of farming products and the introduction of new production techniques without the necessary precautions... Their increasingly consolidated presence can moreover put an end to the speculative trends that are now even affecting basic staples destined for human nourishment and can contain the monopolization of cultivable areas which in various regions is forcing farmers to abandon their land since, as individuals, they have no possibility of imposing their rights”.

Javier Mármol/Manos Unidas

extends far beyond food security to include social, ecological and economic considerations. Food security is not a function that can be assured by markets alone. Governments have the responsibility to ensure coherence between the various policy areas that affect the sector, such as economic development, trade and natural resource management among others. The role of public support to agriculture must be reclaimed and markets need to be regulated by policies that support the Right to Food, respect the sustainable use of natural resources and foster equitable access for the poor.

CIDSE puts forward some specific recommendations:

- International trade regulations should be revised granting policy spaces for food insecure countries so that in multilateral and bilateral trade negotiations, the fulfilment of the right to food is respected, rather than the concerns of exporters to access markets at any cost.
- Trade negotiations should include special considerations for low income food deficit countries to respond to international price fluctuations, including setting price stabilisation measures, import quotas and tariffs and even export restrictions if needed.
- Agricultural policies in the EU and the US should consider their impact on developing countries' markets. Direct or indirect subsidies which distort the cost of production should be eliminated and impact assessments should be carried out to ensure that trade is not displacing local import, competing producers or undermining human rights.
- Regulation of financial markets to curb the volatility of prices and ensure transparency.
- Assurance of coherence in food and agricultural and trade policies that uphold the right to food, is necessary.

We have been living in an era of unregulated markets, trade liberalization, overproduction and waste. This meant that economic considerations have been allowed to trump humanitarian ones. The food crisis has evidently turned the tides and affords us an unprecedented opportunity to reorient our food policies and production systems in order to realize the Right to Food for all.⁵⁸



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SOME FINAL REFLECTIONS AND RECOMMENDATIONS

Throughout these pages we have noted the persistence of hunger suffered by almost 900 million people and we wonder why we have not been able to end this scourge, despite the fact that enough food is produced for the whole population.

The quick overview we have done through the different realities affecting food security allows us to confirm that, in our globalized world, hunger is a complex problem with multiple dimensions and interconnections. Fighting hunger today implies, as a starting point, admitting that we must face a problem that is global, systemic and multi-causal. We will only be able to solve it, if we adopt a holistic and comprehensive approach. Because of this, issues such as climate change, food speculation, models of production or our consumption patterns, among others, are part of the problem.

Another core element when dealing with hunger is to adopt a human rights' approach. If we consider since the beginning food and nutrition as a right of every human being and as an essential part of a decent life, we can best value how agriculture, economy and politics contribute (or not) to food security and nutrition for everyone. Taking the matter to its highest expression, it would imply to guide food production systems, economic regulations, political decisions and so on to guarantee the right to food, above any other kind of interest. To this res-

pect, Catholic Social Teaching, that underpins Manos Unidas work, has much to contribute. It always gives preference to people's dignity, common good, universal destination of goods, and values like justice and solidarity above any other interest or reality.

In this document we have analyzed four factors that nowadays directly influence the situation: climate change and environmental degradation, biofuels production, food prices volatility and international trade. We have depicted those factors as the new realities that join the old causes of hunger.

Fighting against hunger is an enormous challenge. Economics and politics are global issues and the responsibilities, duties and rights, as well as regulations, blur and get tangled in such a way that it becomes more difficult to organize, manage, legislate, work...

Everyone, politicians, international institutions, companies and civil society and each one of us are responsible and we should change the way we act, including the way we live.

We frequently hear expressions that appeal to our conscience and exhort us not to waste food, to make good use of our resources, to not destroy our planet, to take care of the environ-

ment, etc. To do so we must turn off the lights, turn off the tap, recycle paper, glass, containers, oil... not waste fuel, use public transportation, protect forests...

We must, of course, change our consumption patterns: consume according to our real needs (we waste around 30% of produced food, which affects both environment and food prices); to buy local and in-season food ; to consume environmentally friendly products (meat, fish, clothes, shoes, tools...); to reduce our use of air conditioning, electricity, heating and water; to re-use and recycle waste and personal and household items: food, plastics, glass, electronic and computer equipment... (There are beaches in the South that are true rubbish dumps for our waste and sometimes even for our toxic products); to favor the use of clean and renewable energy...

It is important to change the current economic system where companies promote an uncontrolled consumption, the “use and throw” mentality, while abusing our natural resources and generating an excessive production of waste.

But, today it seems clearer than ever, that it is in the political stages where decisions must be taken that allow to establish clear and fair food systems, that significantly reduce greenhouse emissions and that enable the creation of livelihood opportunities for the poor (most of the worlds poor derive their livelihoods from agriculture).

Civil society organisations (social and community organisations, Churches, NGOs...), and citizens through these, should denounce, raise awareness, mobilize and do advocacy so that the decision-taking fora (at the local, national and international level) adopt and implement economic, ethical and production measures that meet the right to food of every person, especially the poorest.

NGOs must support the poorest communities, so that their voices are heard and addressed at the highest stages of national, international and multilateral policy. We must also make knowledge, understanding and use of legal and consensus instruments available to them, so they can claim their rights in the fight for the resources necessary for a decent life.

Some guidelines could be the following:

- Stop environmental destruction in the big lungs of the world, caused by corporations illegitimate desire for profit.
- Design an agricultural production pattern where the right to food prevails for all human beings, over any other investors benefit.
- Support developing countries so that they can increase their capacities to face the challenges caused by climate change, provoked mainly by developed countries.

- Carry out agriculture reforms and establish other mechanisms that ensure access to land for the poor and that enable them to grow their own food and to generate surplus, in a sustainable way.
- Limit the current practice of biofuels production that competes with the production of food for the poorest.
- From the perspective of food security, monitor the so-called new generations of biofuels, so that they don't affect the availability of land for the small farmers, nor production or food prices.
- Limit purchasing opportunities for governments and private investors of large areas of agricultural land in developing countries that have negative effects on the right to food and on the right of access to natural resources.
- Stop the immoral speculative bubble around food and land prices. It is unacceptable that food security largely depends on the voracity of the markets.
- Improve food storage facilities in developing countries.
- Modify trade and agricultural policies in the EU and the US that subsidise agricultural products of their countries creating an unfair and disloyal competition against producers of developing countries.
- Revise the clauses of free trade agreements or similar that harm or hamper the right to food in poor countries and most vulnerable groups.
- Establish trade negotiations that allow for the stabilization of food prices in national economies.
- Pursue the waste of millions of tons of food carried out by trade and financial interests to maximize profit.

No one can remain indifferent to this challenge in which so many human beings are at stake. It is neither ethical nor viable to organize the world in such a way that economic interests prevail over people.

It is inexcusable and urgent that social organisations and citizens commit in solidarity in the struggle so that the right to food prevails in agricultural and trade policies and that the development of sustainable production practices allow us to leave a habitable planet for future generations. And we have to encourage and support political bodies so that they defend positions along or as close as possible to these lines.

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