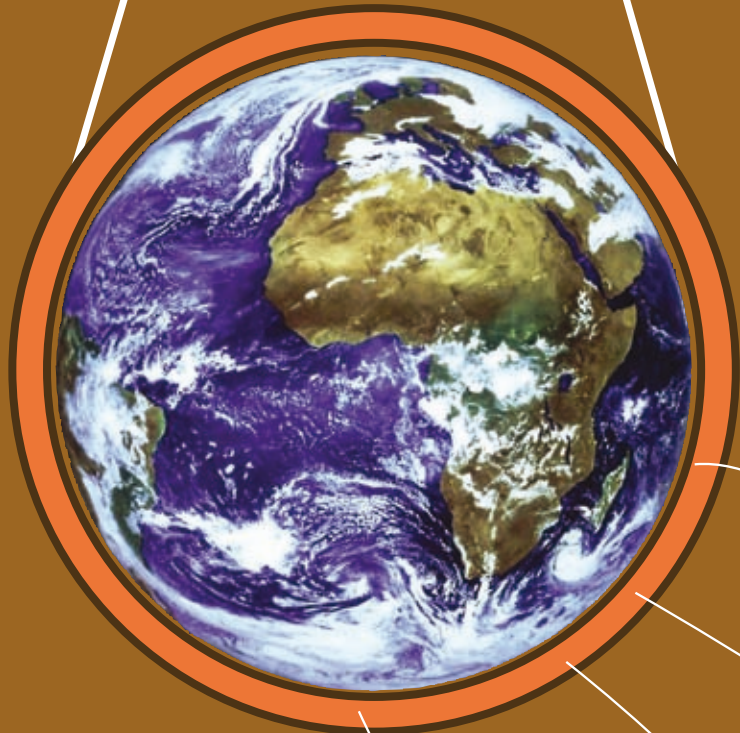


NOURRISHING  
9 BILLION  
PEOPLE

FOOD SECURITY :  
A VAGUE CONCEPT

To provide for the needs ? To eat healthy products? From a country to the other one, the notion of "food security" has different minings. For a larg part of the humanity, the main aim is to fight hunger and malnutrition. Rich countries saw their " food fears " passing of the spectre of the famine (succession of food crises : listeria, foot and mouth disease,...).

CAUSES



NATURAL  
CONSTRAINTS

Natural constraints condition the agriculture and the food situation of the Nations in the world. The climate, the regime of streams, the soil characteristics : many factors to master. The accessibility to the water also plays a real important role.

Droughts explain 60 % of the food crises of the last 3 years.

However the adequacy of famines distribution and droughts geography is never completed. The water problem is also a qualitative one : more than a billion persons in the world do not arrange drinking water. 3 billion people suffer from affections connected to the bad quality of the water and more than 2,4 billions don't have sanitary installations.

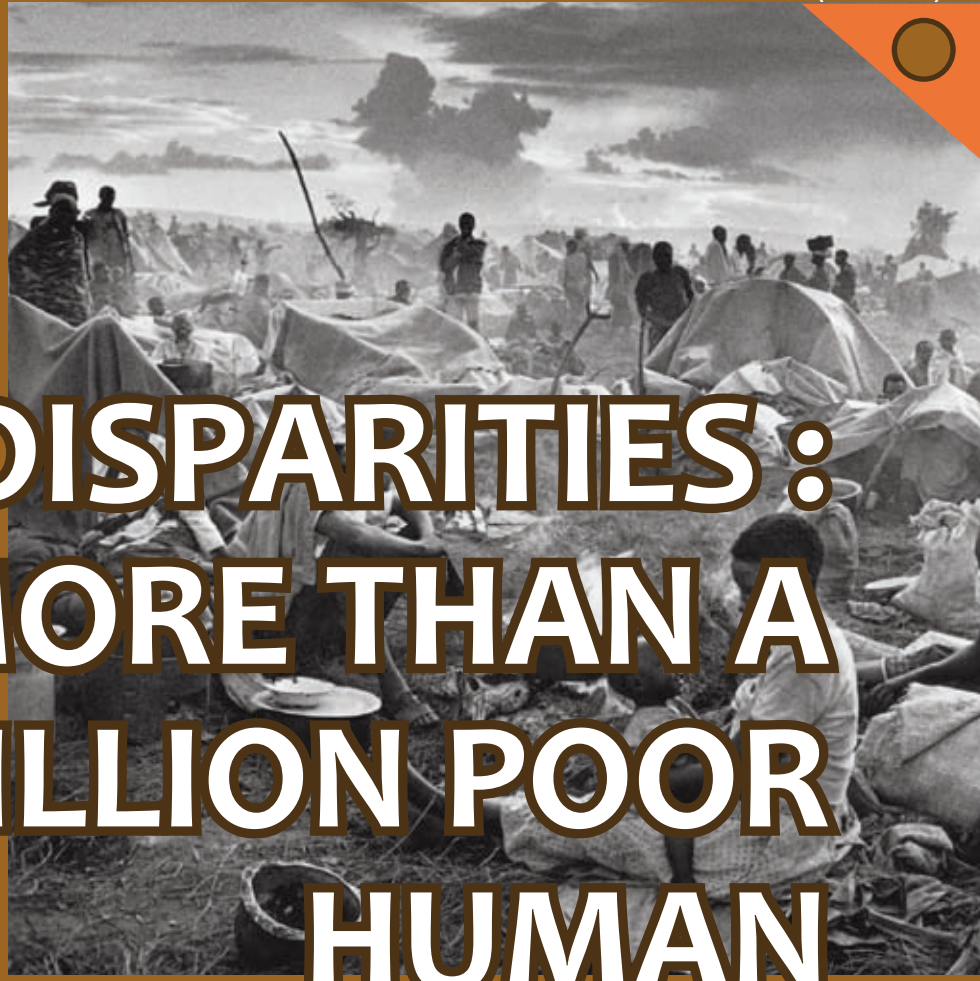


ARE WE TOO  
NUMEROUS?

The severely criticized Malthusian theories (18th century) of the overpopulation reappear regularly to explain the food insecurity. People will be about 9 billions in 2050, they were 3,7 billions in 1970. The total quantity of arable land being limited, the "neoMalthusians" recommended a drastic reduction of the number of human. Some demographers indeed noticed that the population growth tended to stabilize : " demographic transition ". It's seems to come true in all the Nations of the world.

In poor countries, the population increases between 5 to 20 times more quickly than in industrialised nations.

If the South nations don't take off economically, more than 85 % of the world population will live in poverty. A child, born in a rich country, can expect to live until 76 years old, 64 years only in a poor country and 50 years in Africa.

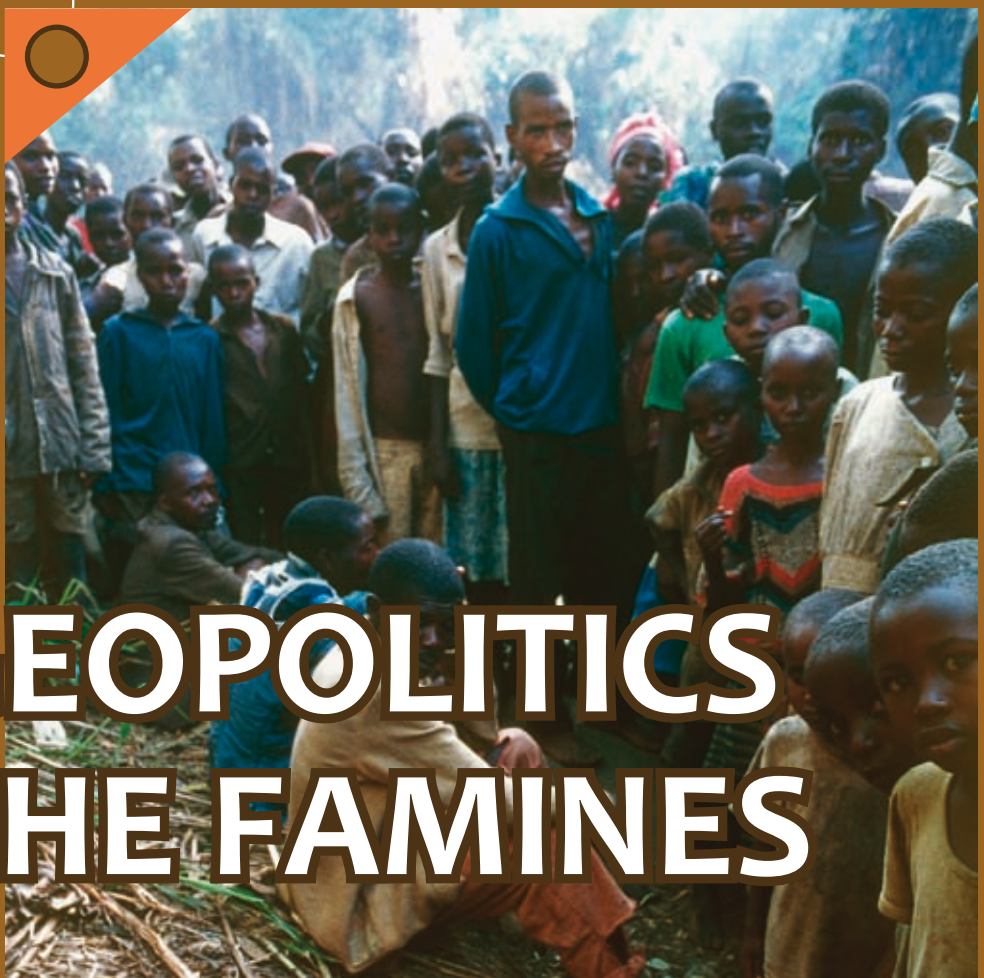


THE DISPARITIES :  
MORE THAN A  
BILLION POOR  
HUMAN

The gap between rich and poor is increasing. The distance from incomes between the fifth of the world population of the richest countries and the fifth of the population of the poorest countries increased from 30 for 1 in 1960, to 74 for 1 in 1997. If some populations getting poorer and poorer especially in sub-Saharan Africa, rich countries are not spared. The United States count 34,5 million poor people, France 6 millions. Certain regions of the European Union register rates of poverty superior to 14 %.

In 2000, 71 % of the poor people lived in rural areas, but poverty grows faster today in cities.

1,3 billion persons in the world try to survive with less than one dollar a day. The poverty is at the same time cause and consequence of the food insecurity. The social cost of malnutrition is hudge: nutritional problems, mortality and morbidity increased, distorted physical and mental development, capacities of learning and work decreased... Nutritional deficiencies are often transmitted from one generation to the other one. So, it is long and difficult to stop the vicious circle.



GEOPOLITICS  
OF THE FAMINES

War and conflicts lead to serious food crises. In countries at war, famine is chronic and food shortages can happen all year round. These conflicts destroy crops and livestock, farmers are requisitionned and villagers prevented to work in security. The systems of production and marketing are profoundly disrupted and this emphasis the structural causes of these crises. Food insecurity causes more deaths than direct violence. The consequences of the conflicts are long-lasting. After every war, the return to the normal cycle of production is blocked by numerous difficulties : a part of the manpower is decimated, the migrant population tries to return to their land, intrants (seeds, tools, dairy animals) misses, fields are sometimes mined, the wells are poisoned and the infrastructure is damaged.

Starving people is a unexpensive and very effective weapon.

The " food weapon " allows to exert pressures and to drive a State or a human group to give up. This practice remains regrettably common in numerous countries as in North Korea..

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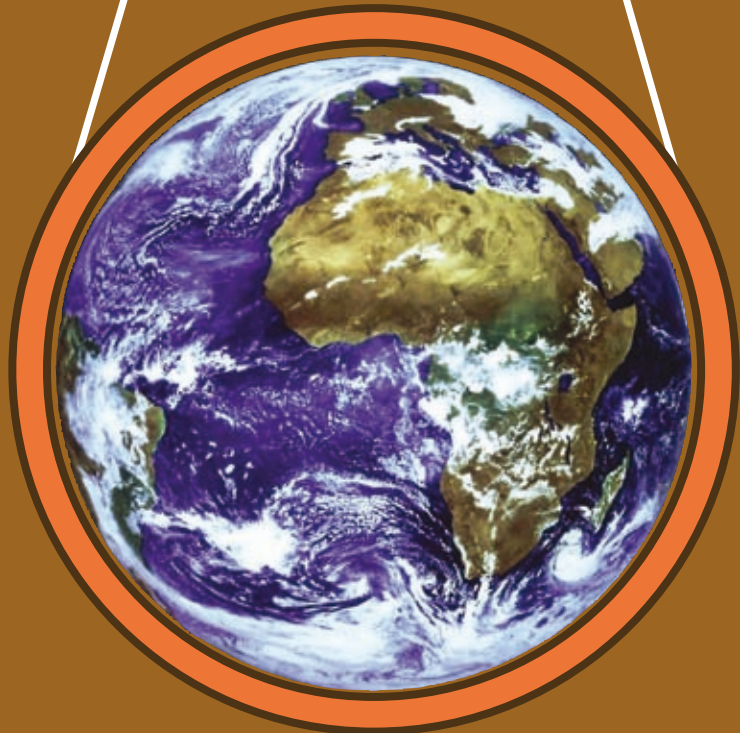
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OBERTI Bénédicte, PADILLA Martine  
CIHEAM-IAMM, UMR-MOISA, 3191 Route de Mende, 34093, Montpellier cedex 5  
oberti@iamm.fr / padilla@iamm.fr

SOLUTIONS



A PRODUCTIVE  
AGRICULTURE  
AND A SUSTAINABLE  
DEVELOPMENT ?

Our planet needs an efficient agriculture. During the last fifty years, the food production increased due to a moderate increase of the cultivated surfaces, the development of the irrigation, and better productivity by hectare.  
In the future, the crops of new land and the development of the irrigation will be impossible. Only remains to increase productivity.

But the productivist agriculture current is too energy-consuming, too polluting and too chemical-consuming.

To increase soil and work productivity is not viable any more, without being worried about social, economic and environmental consequences. The agricultural research for the development has to be profoundly transformed and open up to the biological and ecological disciplines.



THE FRAGILE  
DEVELOPMENT  
OF THE FAIR  
TRADE?

“Trade” and “equity” are opposed at first sight. However the “fair trade” shows a certain development since 1960. The food product sales generated in 2002 in the world are estimated at 320 million dollars, and they increase approximately by 20% each year. They concern mainly coffee, tea and chocolate.

It is « a commercial partnership founded on dialogue, transparency and respect with the aim of arriving to a greater equity in the international trade ».

The fair trade is engaged with producers or marginalized and vulnerable workers, to enable them to live of their activity and systematically to refuse any form of exploitation in accordance with the international law. The principle is also to make producers and employees responsible. It remains to develop new modes of consumption able to support effectively the initiatives of ethical economy.



THE FOOD AID  
IN QUESTION

The emergency food aid implementation in case of conflicts or natural disasters is the most visible. But there is another food aid, scheduled, between country donor and beneficiary, aiming to support projects of development or to allow the profitable State to save food imports.

In 2003, 2 million tons of products were bought by developing countries. 8,2 millions tons were sent in kind. Is it effective?

The donations can arrive too late, disrupt seriously the local economy, they can have commercial objectives such as offering future markets,... The World Trade Organization (WTO) and the Agreement of London supervise the food aid. WTO defines rules of drainage of foodstuff surpluses. The Agreement of London constraints donors to supply minimal quantities annually, to purchase local products as well as a better coordination between donors.



MORE FOOD  
THANKS TO THE  
BIOTECHNOLOGY?

Can biotechnology contribute to sustain the food sector? Opinions diverge. Important advances of genetic engineering also led to the diffusion of more controversial products : the genetically modified organisms (GMO). The first GMO plants were obtained in 1983 and 4,6 % of surfaces are cultivated in 2003 in the world. 7 millions of farmers live on it today, in 18 countries. They are the symbol of a more and more controversial globalization.

A dangerous « marriage » of the science and the economy?

GMO would increase the sanitary risks by increasing the capacity of the pathogenic micro-organisms in antibiotics resistance, by generating allergies, even cancers. The experts remain careful, as none of the risks mentionned before have been proven. There is also an ecological risk of "bio-invasion"  
The objectives are also economic : risk of privatization of living species. The solution to hunger in the world starts first by other measures on resources distribution and a good political governance.



THE REDISCOVERY  
OF THE TRADITIONAL  
KNOWLEDGES?

Detoxication of the manioc in Amazonia, fermentation of soya in Asia, dehydration of potato in the Andes (chuño) : because feeding people presents risks, people developed, techniques and knowledge to produce food, to preserve them.  
These techniques don't rest solely on objective knowledge ; they were built starting from specific representations to each culture, as well as tastes and consumer's choices.

The traditional companies developed the know-how adapted to the environment in which they evolve.

These practices travel and adapt to new contexts. The rediscovery of this traditional knowledges brings new lightings on the food security issues. This know-how continues to evolve to be adapted to new ecological, social or economic constraints.



NEW WORLD  
POLICIES  
integrating  
nutritional  
objectives

Increasing the availability of food is not enough. Strategies, policies and programs have been implemented. A poor country is assisted on average by 30 aid institutions.  
Food security cannot be planned only at the national level but is an international issue. World Health Organisation (WHO) adopted a global strategy on food, physical activity and health, which provides a reference framework.  
The emergence of the concept of sustainability requires to take into account the hunger and malnutritions under biological aspects, but also economic, cultural and environmental aspects.

New models appear relying on 3 pillars by WHO : food safety, sustainable food supply and nutrition.

Can these initiatives influence, even reverse, the dynamic in progress? A common awakening, based on a world civil society, is essential, if we don't want that these new policies remain speech. So the citizen becomes “a consom' actor”.



CIHEAM  
IAM MONTPELLIER