

# DEVELOPMENT, THE ENVIRONMENT AND FOOD: **TOWARDS AGRICULTURAL CHANGE?**

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The food crisis is above all a crisis of poverty, not a crisis of global agricultural production. Some of the traditional actors in the agricultural sector raise Malthusian fears in an attempt to obtain a new legitimacy in a changing environment of food security governance, where new actors are entering onto the stage.

## FOOD CRISIS: A RESHUFFLING OF STAKEHOLDERS

In Chinese, the word ‘crisis’ is expressed by the combination of two signs: danger (wei) and opportunity (ji). In accordance with this definition, the current food crisis that many observers have identified as ongoing since 2008, comprises ‘danger’, specifically the suffering, both acknowledged and silent, of vulnerable populations affected by rising prices; alongside ‘opportunity’, which in this case is the chance for numerous stakeholders to voice their opinions regarding the handling of the crisis and to claim rights or defend legitimate positions in the institutional game. There have been countless summits (at high and low levels), seminars and roundtables on the topic of food security; and a multitude of TV and radio programmes on the subject. Since 2008, in France alone there have been no fewer than ten books published on the topic of feeding the world, humankind or humanity<sup>1</sup>.

In many ways, the issues at stake since 2008 with regard to food security are not completely new. Indeed, to many observers the crisis is purely the manifestation of the end of a cycle of agricultural disinvestment, as occurred in the 1950s and the 1970s (HLPE, 2011). It is therefore unsurprising to see that history has repeated itself. The only difference is that the world has changed in the meantime, so that the current crisis engages a much broader range of stakeholders.

This new scene of discussions and actions provides the focus for this article. Firstly we examine the way in which the current price crisis is not related to a reduction in supply, and that the food crisis appears to be above all a crisis of poverty. We then

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1. Books by Barnier, Brunel, Charvet, Dorin et al., Gherzi, Gleizes et al., Griffon, Parmentier, Fumey, Petit, Rastoin, Thinard, Worldwach Institute, Guillou and Matheron.

look at how new stakeholders, both international and local, have emerged into the field of food security. The article concludes by highlighting the growing importance of non-state stakeholders, civil society, NGOs, the media and the private sector in areas of governance for food security.

## FOOD SECURITY AND AGRICULTURAL PRODUCTION

There is a paradox between the way in which the understanding of food security has evolved over 30 years to encompass the recognition of its multi-factorial and multi-sectoral nature, and how it is now often reduced to the single dimension of food availability.

The definition of food security following the 1976 World Food Conference focused on food availability and the risk of failing to meet increased demand. This rising demand was primarily seen as a demographic question, at a time when the stabilization of world population growth seemed a distant or even hypothetical prospect. This definition arose in a particular context, similar in some respects to that which has existed since 2008: climatic aberrations affected food production while oil and grain prices soared on the international markets. With thoughts dominated by Malthusian population growth curves and price spikes, the two major responses to emerge were to increase agricultural production and market regulation, through the storage of surplus supplies. Forty years on, demand is still accelerating, especially given the new prospects for biomass energy, and we are once again amid climatic aberrations and soaring prices; it is not therefore surprising that yesterday's solutions are making a reappearance today.

As in similar moments in history, future food supply scenarios have been envisaged to draw attention to the importance of the agricultural sector. Indeed, one of the advantages of such instruments is to highlight, as Malthus did, the rapidly rising demand for food relative to agricultural supply. The conclusions are therefore always the same: all necessary efforts must be made to increase supply through investment in agricultural research and infrastructure, such as irrigation for example.

Historically, this equation has been solved partly through the acceleration of the growth in supply, particularly by the Green Revolution, and partly through the moderation of demand through population control. Significant dietary changes were considered to accompany population growth, economic development and urbanization. Today, the majority of recent works remain convinced of the need to accelerate the growth in supply. Only a few directly address the question of diet, particularly the consumption trends for animal products and envisage 'unfashionable' demand-reduction scenarios (Paillard et al., 2010; Foresight. *The Future of Food and Farming*, 2011).

However, the definition of food security has changed dramatically, especially with the decisive contributions of Amartya Sen who put forward the concept of access: the objective is not to produce more, the priority must be to give each individual the ability to access the means to produce and/or to consume. From a purely agricultural issue, today's perspective has shifted the focus so that the question is now one of

capabilities, purchasing power and thus poverty. The definition adopted at the 1996 World Food Summit, and which continues to hold sway today, reflects this emphasis on access and not just availability. And it is this shift that explains the emergence of institutions onto the stage, such as the World Bank, that are no longer solely dedicated to agricultural production but are more broadly concerned with economic development.

However, due to the price crisis and the conclusions of the projective scenarios that look ahead to 2050, there has been a return to a reduced vision of food security as a balance between supply and demand. The spectre of Malthus is apparent in the media and political rhetoric, despite the fact that all the data show there is currently no global agricultural production crisis. Worldwide agricultural production continues to accelerate – in fact it has never been stronger – and the growth in food availability per capita has not slowed in recent years.

Sub-Saharan Africa, for example, which is considered food insecure at the regional level, has seen an increase in the consumption of cereals even during the recent crisis years, due to increased production.

If there is a food crisis then it exists because international oil, cereal and food oil prices have increased rapidly, which has had an impact on impoverished populations, particularly those that have accumulated in cities. And if these prices have risen, it is not so much because of a lack of production, but rather due to an increased demand, especially for non-food (and non-feed) uses and in particular the production of agro-fuels (Figure 1).

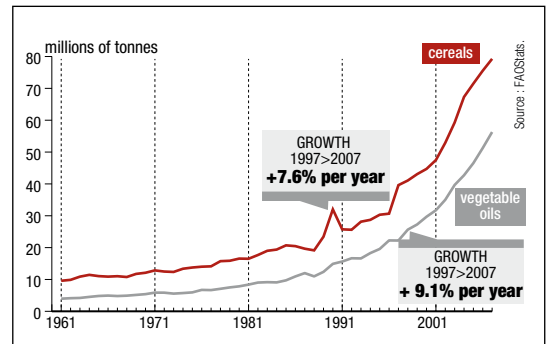
In an increasingly tense market with reduced global stocks, climatic aberrations have resulted in higher prices. Meanwhile, speculation on the derivative markets of agricultural raw materials has exacerbated the situation, along with the imposition of export restrictions in some countries. Over time, these conditions have combined to change a price increase into a price explosion.

In this context it is clear that the stakeholders of the crisis are not only farmers; in reality a much broader range of agents is involved.

## DIVERSIFIED STAKEHOLDERS

The first stakeholders to be directly affected by price increases are international market operators, traders, brokers, financial analysts, banks, etc. Some of these agents are linked to the agricultural sector, through the use of futures markets to hedge against risks related to prices. But these agents derive more from the world of trade than from that of finance, evolving in a sphere that is relatively autonomous from the agricultural sector, of which they have little knowledge. Their tools are complex and poorly understood in the food industry, which considers financialization

**FIGURE 1 CEREALS AND VEGETABLE OILS, NOT JUST FOR FOOD**



Non-food uses for cereals and vegetable oils have been increasing since the 1960s, but have undergone an explosion in the last decade: +7.6% for cereals, +9.1% for oil per year. This represents real competition for the supply of food markets.

as an obscuration of market functioning. This partially explains the complexity of the debate on the controversial role of speculation in these markets; information is difficult to obtain and relationships with professionals have become uncommon.

Biofuel producers now join the ranks of buyers of agricultural commodities, contributing to the ratcheting up of market tension. Not only has their demand become significant and contributes directly to raising oil and maize prices, and also in consequence to increasing the prices of the other substitutable cereals, but they also buy or rent agricultural land for energy crops. These stakeholders also strengthen the connections between the agricultural and energy commodity markets, since their competitiveness depends on oil prices. This interconnection, which is a factor of instability in agricultural markets, is a new phenomenon that broadens the circle of stakeholders involved in food security to include energy sector stakeholders.

National states, which are also directly concerned with food prices, continue to play a role in regulating flows and prices in the interfaces with the international market. During the 2008 crisis, they fulfilled an important function in mitigating the price spikes for their domestic consumers. Many governments have thus decided to reduce taxes on food imports, although this approach is not in accordance with WTO agreements that prohibit the use of variable taxes. The countries that have adopted this tactic have incurred a major financial cost: in 2008 tax losses for the eight countries of the West African Economic and Monetary Union (WAEMU) amounted to between 480 and 880 million euros (Soulé et al, 2008). In parallel, many countries have also banned or restricted the export of food, fearing the loss of too much of their own produce onto the international market and the consequent risk of sudden price rises on their domestic markets. These measures, when widely applied to countries that export a significant amount of their agricultural produce, have made supplies scarce and pushed up international prices.

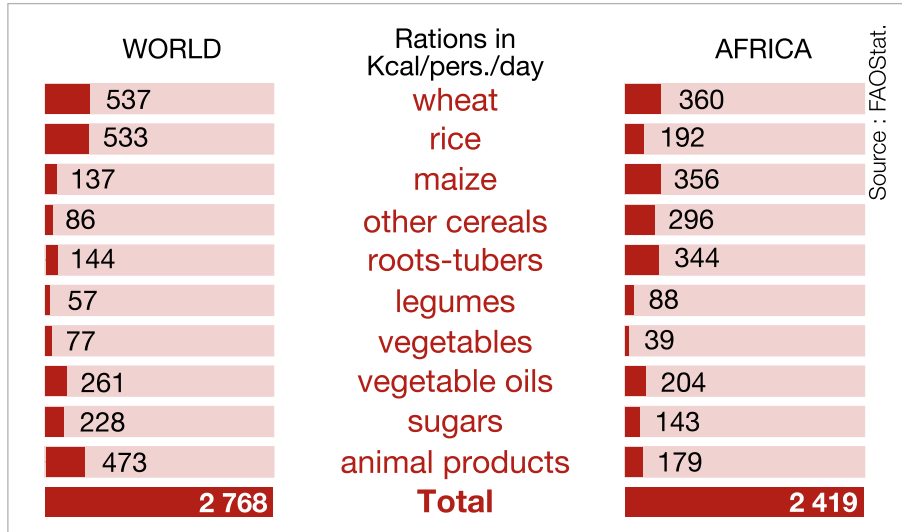
Through either tax cuts or export restrictions, what is clear is that states are asserting their sovereignty to manage the crisis, even if the measures that they implement appear contradictory with those developed at the international level and are subject to criticism from the international community. Although, as discussed later, a more global scale of governance has emerged from the crisis, the role of states, that a quarter of a century of liberalization had challenged, is making a comeback to the centre stage and resuming an important role.

States are not the main protagonists in the regulation of domestic markets in developing countries, particularly Africa, a fact that was true for the 1970s price crisis and even more so today. Private operators, traders and processors have for a long time been accused of existing only to make a profit on the backs of consumers and small producers, but have finally been recognized for their ability to supply rapidly growing consumer markets.

## **LOCAL STAKEHOLDERS IN THE AGRI-FOOD SECTOR**

Africa provides an interesting case study, as a continent that continues to attract attention due to the important share of its population that is still considered to be

FIGURE 2 THE SPECIFICITIES OF THE AFRICAN DIET



Average food intake per person in Africa is slightly below the world average. The proportion of local cereals and tubers in the average diet, compared to maize and rice also show the resistance of traditional eating habits.

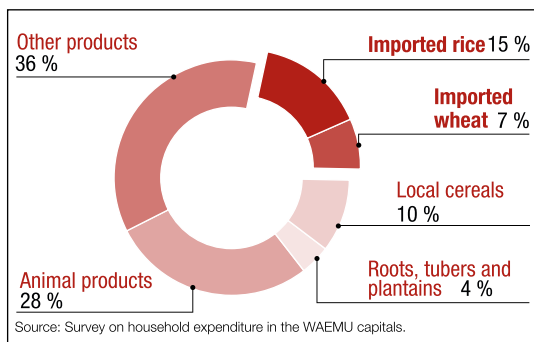
food insecure. Indeed its recent development has gone against some preconceived ideas. Thus, contrary to popular belief, food in Africa remains largely dominated by local products. Although often described as highly dependent on cereal imports, on the basis of FAO data it can be calculated that wheat and rice imports for the entire continent only provide 12.2% of the available calories. While imports represent 61.7% of the available wheat food supply on the continent, the proportion is much lower for rice (39.5%)<sup>2</sup>. Such figures put into perspective the dominant, if not exclusive, position occupied by cereals in the food security debate. The average calorie intake for the whole African continent shows a great diversity (Figure 2). Compared to world data (Figure 3), Africa derives a much lower proportion of its calorie intake from calories of animal origin (8% compared to 19% for the global average).

Starch crops (cereals, roots, tubers and plantains) represent 70% of the available calories in Africa, while they only account for 52% in the world data, with product distributions that vary from one country to another: some are dominated by cereals, some by roots and tubers (cassava, yam, sweet potato, etc.). As a proportion of calorific intake, these roots and tubers are thus three times higher in Africa than in the world as a whole.

The situation is certainly different in cities, where imported products such as Asian rice and European or American wheat have gained significant market shares. However, the share of these products throughout the urban food market is limited, except in special cases such as Dakar, which is frequently cited as an example despite its unrepresentativeness of the continent as a whole. Surveys conducted in 2008

2. FAOSTAT data for the average calorie intake in Africa 1997-2007

**FIGURE 3 AFRICA DEPENDS ON CEREAL IMPORTS, BUT NOT ONLY**



Cereal imports represent about 20% of urban household expenditure in West Africa. This amount is significant but must nevertheless be put into perspective when considering the factors of food insecurity: local products remain the staple diet.

and other products including oils, fruits, vegetables, sugar, condiments and beverages, have a market equivalent to that of starch (36%).

These cities have thus become a real outlet for local agricultural production, the market value of which now exceeds all agricultural export markets. Many foods formerly regarded as “subsistence” and designated for auto-consumption are now grown as cash crops. In addition, an intermediary sector has developed, involving collection, packaging, transportation, processing and distribution, which is providing cities with much more varied produce. Trends in urban food demand are increasingly moving towards products (such as flour, semolina, granules, fermented pastes, dried cassava chips, oil, etc.) that require more packaging, production, transportation and trade, thus providing employment for millions of people. In the eight capital cities of the WAEMU countries, the urban restaurant sector alone accounts for 24% of the food market, i.e. one billion euros per year. Businesses in this sector, both upstream and downstream in the supply chain, are poorly recognized by public authorities due to the diffuse and “informal” nature of the sector, and because it largely involves women and is often considered as a sign of underdevelopment. Abandoned by vocational training policies, excluded from bank credit systems and from the development of sanitary regulations and often persecuted by municipal authorities, the industry nevertheless feeds the vast majority of the population with low-cost foods that correspond to the population’s eating habits. Far from simply reproducing rural culinary traditions, the sector is constantly innovating and contributing towards the invention of modern urban foods, while borrowing very little from Western models. Indeed, the sector is becoming one of major job creation, particularly for vulnerable populations, and has a strategic link with food security (Broutin & Brice, 2006) (World Bank, 2007). Over the past half-century, African cities have experienced population growth at a particularly rapid pace: in 1950 there were 33 million people, today this number stands at 420 million. However, despite this extraordinary growth rate, these cities have never experienced a food supply failure, except as a consequence of war, due to the expansion and organization of this intermediary food sector.

on urban household expenditure in the capitals of the WAEMU countries (Abidjan, Bamako, Bissau, Cotonou, Dakar, Lome, Niamey and Ouagadougou) shattered the myth that these cities were being fed on imports (Figure 3).

In economic terms, imported cereals amounted to 22% of the food market, compared to 14% for rice, maize, millet, sorghum, cassava, yams and plantains and other local starchy products. But these commodities that support the calorific intake of the poor, only constitute just over a third (36%) of the food market of the eight cities. Animal products, meat, fish and dairy products account for just under a third (28%),

It is clear that in the larger cities this sector is changing. The emergence of a middle class is beginning to lead to the generation of a new type of business model, often more formal and mechanized, that offers products with higher added value, a higher level of quality control and with packaging that enables such products to compete in self-service shops alongside standard industrial foods. It is new entrepreneurs that are behind these businesses, often women, who sell not only on urban markets but also export to markets that cater to the diaspora throughout Europe and North America. Traders, who are gaining recognition as economic stakeholders, organize themselves to benefit from warehouse receipts and bank loans. In East Africa, they have established financial exchanges where futures contracts are traded. The largest traders have now reached a stage where they can negotiate with public authorities. Their role during the crisis is, however, controversial. Such agents have probably contributed to the mitigation of price rises by reducing their margins. However, a widely held belief persists that these traders have maintained their higher charges even after the price spikes began to return to lower levels.

These developments, especially the growing awareness of the demographic importance of urban markets on a continent with strong economic growth, are drawing the attention of foreign investors. As has been the case in Latin America and Asia for some time, Africa is a continent where multinational agri-food companies are now actively prospecting. Such companies are attracted to countries with a developing middle class and they invest in industrial processing and supermarket distribution sectors. Indeed, supermarkets are multiplying across Africa, more so in Eastern and Southern Africa, and a little more gradually in Western and Central Africa. Europe, which has long dominated in these investment types, now has to compete with China, India, Brazil and South Africa.

Consumers, the final agents in the food chain, have for the first time strongly registered their protest. Population growth, which is still rapid in countries where demographic transition is incomplete, and urbanization, which is also rapid, mean that about 20,000 to 30,000 young people arrive on the labour market each year, per million inhabitants. This pace will continue for the next 20 years (Beaujeu et al., 2011). Employment has lagged a long way behind this pace of population growth and millions of young people (63% of the African population is under 25) have entered into crowded cities which, despite the difficulties, continue to appear as places with greater opportunities than rural areas. Only countries that have invested heavily in rural infrastructure such as transportation, communication, health, education, access to water, etc. have been able to reduce migration into cities.

In 2008, 2010 and 2011, riots occurred, that were dubbed by the media as “hunger riots”, in response to the high costs of living. The rioters were members of a desperate urban population that felt it lacked any future, which had exhausted its resistance

***AS HAS BEEN THE CASE IN LATIN AMERICA AND ASIA FOR SOME TIME, AFRICA IS A CONTINENT WHERE MULTINATIONAL AGRI-FOOD COMPANIES ARE NOW ACTIVELY PROSPECTING.***



capacity after enduring successive years of crises, and who were exasperated by the political regimes in place, accusing them of not doing enough to create employment and to guarantee a more equitable distribution of resources. In most cases, the riots took place in cities with high levels of social tension; first oil prices began to rise, followed by a few notable foods, which together provided the spark to light the tinderbox.

The media have also played a role in the simultaneous nature of the riots and the creation of what was then called the “food crisis”. The diffusion of television and the internet has indeed drawn every citizen closer to one another, and instantly

### **BOX 1 DIVERGENT INTERPRETATIONS AND ACCOUNTS OF THE IMPACTS OF PRICE CRISES**

Curiously, beyond the so-called “hunger” riots, we actually know very little about the transmission of higher international prices on domestic markets and their effects on household behaviour. There are few examples where statistical systems actually track consumers. Systems to prevent food crises are predominantly rural and monitor precipitation, pest damage and production volumes and prices. The FAO also calculates the number of food insecure people in the world, based on an estimate of food availability, which roughly takes into account the income and purchasing power of rural and urban populations. Through this method, since 2008 the FAO has been able to declare a sharp increase in the number of food insecure people, and announced the symbolic crossing of the one billion threshold for the number of people classified as “hungry”, with the intention of influencing decision-makers in order to obtain a mandate to manage the crisis. However, the choice of indicator is not neutral: by basing the calculation on food availability, crisis resolution is viewed in terms of moving towards the promotion of production, such as the greater distribution of fertilizers and seeds and incentives for new agri-

cultural investment, all in the name of the challenge to feed nine billion people by 2050. Curiously, the 2008 high-level summit organized by the FAO in Rome did not even mention poverty and called only for a boost to agricultural production (Bricas & Daviron, 2008).

In response to the simplification of food insecurity to a problem of availability, other approaches have developed. These new approaches do not seek to objectively measure this insecurity, but in line with the proposals of S. Maxwell, they are based on how this insecurity is felt by the population. The calculation is no longer based on production statistics, indicators of income distribution or price data, but on extensive population surveys. Another new aspect to these methods is the use of data that is no longer public but private: on the local level, NGOs and development or humanitarian projects produce their own data that is usually independent of national statistical tools, for which they have no use (Dury et al, 2011). On a national level, some NGOs cover such a large geographic area that their data are considered as reference data, and are used by the FAO. Internationally, some studies have emerged that were carried out in several countries either by private

polling institutes or by NGOs. For example, since 2007 a Gallup poll has been conducted in over 100 countries. On the basis of a large sample number, these surveys have concluded that in terms of the experience of food insecurity, the situation is improving at the global scale (Headey, 2011). Due to rapidly rising incomes in major emerging countries and because of rising agricultural commodities prices for producers, the number of people lacking money to buy food has decreased significantly. Oxfam conducted a survey in dozens of countries involving more than 16,000 people, which showed that the price rise may have changed eating habits (Oxfam, 2011). While all these data must, just like those of FAO, be used with caution, they reveal the dual vision of food security, which is either seen in terms of availability or poverty. In particular, they also reveal a game where the players vie for the choice of indicator to be used in arguments, since it is critical to steering the direction of the debate. Beyond technical and methodological issues regarding indicators, issues that are largely debated in national, regional or international forums involve a power struggle between agents that want the responsibility of managing the crisis.

kept them informed of world events. The fall of the Haitian government in April 2008, against a backdrop of rising prices was instantly known throughout Africa and generated protests that targeted the same objective. These riots related to the high cost of living are not new. The world has seen this before, often as localized events that were then considered as primarily internal phenomena. What is new is the simultaneity of the riots, about thirty occurred within a few weeks in Africa, Asia and America. And it is because this looks like an epidemic that concerns have been raised in international forums, including the United Nations, in case there is a risk of global destabilization.

### A MULTITUDE OF INNOVATIVE INITIATIVES

It is this fear of destabilization that the international community has mobilized itself to address. Successive summits involving heads of state or governments have thus been organized in an attempt to alleviate the crisis. While the authorities in charge of food security had become less visible and were lacking the necessary authority to place this issue high on the agenda, the 2008 crisis has had the effect of reshuffling the stakeholder pack and providing an opportunity to reform these institutions. Two simultaneous and apparently contradictory movements can be read in the multiplication of institutional initiatives.

The first, as mentioned earlier, is a reaffirmation of the sovereign power of states to manage the crisis. This takes the form of trade policies (reducing import taxes and blocking exports) and, for some countries with poor agricultural resources, also entails large-scale land acquisitions in other countries to secure domestic supplies. The price surge caused a crisis of confidence in international markets as a means of securing stocks. In fact, some countries encountered difficulties when trying to buy wheat or rice on the international market and are consequently trying to diversify their supply modes, for example by boosting domestic production or by investing in production in other countries in addition to market purchases. The Doha Round was interrupted at the end of 2008 by the stance taken by some countries that refused to make any trade compromises to ensure food security for their populations. In 2011, the breakdown of WTO talks means that the prospect of an international agreement is very uncertain in the short term.

While these agreements and international institutions are weakening, there is a parallel emergence of new global institutions and a reformation of old ones, such as: the High Level Task Force (HLTF), the Reform of the Committee on World Food Security, the Scaling Up Nutrition (SUN) movement, etc. One feature of the evolution of these institutions is the emergence of non-state stakeholders: NGOs and multinational private corporations. The limitations of public funding that the financial crisis has exposed means that hopes are now resting on private funding. The SUN, which works in the field of nutrition, has a substantial budget at its disposal for financing

***WHAT IS NEW IS THE SIMULTANEITY OF THE RIOTS, ABOUT THIRTY OCCURRED WITHIN A FEW WEEKS IN AFRICA, ASIA AND AMERICA.***

actions. The Gates Foundation is also very active in this area, and so are companies that provide food supplements.

## **CONCLUSION: WHAT CAN WE LEARN FROM THIS EMERGENCE OF NEW STAKEHOLDERS?**

Since 2008, the traditional agents in the agricultural sector (trade unions, ministries, the FAO, agro-supply companies) have used the food crisis as a means to re-establish themselves with a new legitimacy, once again by citing Malthusian scenarios. This approach still has the ability to re-mobilize, as it puts the spotlight onto the future supply and demand equation. A semantic shift betrays such approaches: these stakeholders do not talk about individual food security, but about feeding the world or the supply/demand balance at the world level. Agricultural production clearly has an important role to play, especially in areas where it is barely sufficient to cover food and monetary needs. But the recognition of the multi-sectoral nature of food security calls for a reconsideration of the role of agriculture by expanding its mandate well beyond that of providing sufficient biomass. It plays a role in job creation, in health and nutrition, in the stability of prices and incomes, and in culture, and it must

therefore be evaluated on these functions. But since these functions are important, all the other sectors contributing to them are important too.

The food crisis has provided a window of opportunity for the reconstruction of governance that is based on more than a simple reflection of the increasing importance of the global level, but instead on a dual movement where states are regaining a level of influence that liberalization

### ***SINCE 2008, THE TRADITIONAL AGENTS IN THE AGRICULTURAL SECTOR HAVE USED THE FOOD CRISIS AS A MEANS TO RE-ESTABLISH THEMSELVES WITH A NEW LEGITIMACY, ONCE AGAIN BY CITING MALTHUSIAN SCENARIOS.***

policies had tended to strip away from them. The interplay between stakeholders is therefore more complex, especially as new agents have gained considerable importance: firstly private companies, ranging from upstream agricultural ones – seeds, fertilizers and pesticides – to agri-food processors and supermarkets; and secondly NGOs. But the significance of these non-state agents is not limited to agricultural supply. It also extends to information systems – such as those that focus on the experience of food insecurity, on prices or on satellite imagery – including global ones, with consequences that are still poorly understood.

Ultimately, it is the people themselves, which we will not term as ‘consumers’ here, that are notably absent from food security governance, a large part of whom auto-consume their own production. Apart from 2008 when these populations made themselves heard through rioting, the people remain the great silent majority in this debate. They are only approached through surveys, the methodologies of which influence the results. Whether one measures the degree to which objective needs are satisfied, people’s purchasing power or their opinions, the same reflection of expectations is not obtained. Populations are also studied through representatives: the state or local authorities, consumer associations or even supermarkets,

which claim to speak on behalf of their clients. The legitimacy of these institutions is obviously debatable. But what is striking in all cases is the fact that the focus falls only on vulnerable or poor people. Of course, the situation for these individuals is critical and has weakened since the price increase, if we believe the institutions with responsibility for the safety nets. The attention directed to these people is of course unquestionable: they are the ones who suffer. It is the health and future of their children that are put at risk. While attention must be given to the most vulnerable, because they are often silent, more generally, the poorest populations must also not be forgotten. The deterioration in their purchasing power and resilience can tilt them towards volatile situations. It is also worth noting that no attention is given to those that have gained from the food crisis; and there are some of course! High prices, the development of agro-fuels, large-scale land acquisition and investments in the agro-food sector are all features of crises that allow some to benefit and make a profit. More generally, over-consumption in rich countries, where the demand appears infinite in a world of scarce fossil resources, is certainly a part of the problem and attention should be directed onto this matter. ■

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