

Edited summary of presentation by Roberto Smeraldi, director, Amigos da Terra –  
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Thank you Mr. Chair, ladies and gentlemen. Within the context of “Future of Food”, I was asked to try to respond to which extent Latin America can be regarded as a source for feeding other regions of the world, to which extent certification might help in this challenge and how biomass will be part of the future’s economy.

Some expect that South America should increasingly feed the world. It might be possible to a certain extent, but I would like to make clear from start that the actual cost you should be prepared to pay for it might be rather high. Once you include in the costs the externalities paid for by the global citizen, it might even prove not a good business.

It is important to explain that in most of our countries, and especially in Brazil, we face a phenomenon called frontier expansion, based on occupation of further marginal land with high carbon content and high biodiversity.

While in Asia, 80% of growth in agricultural production in this decade was due to increased yield productivity and the rest to farmland expansion, in Africa 75% was due to farmland expansion and only one fourth to yield, while in Latin America two thirds was related to increased farmland area and one third to increased yield productivity. By comparison, in the US all the growth over the decade is due to yield while land expansion is about zero, and in Europe you have negative land area effect with a rather high yield productivity effect, even if overall growth is very modest. Latin American region has the highest average growth in the decade, above 3%, the other continents around 2% and Europe a growth of mere 0,2%.

Within Latin America, the only country with higher growth mostly due to the yield effect is Mexico, while the Andean countries have balanced causes and, in the Southern Cone, you have approx. 2/3 of growth based on farmland area.

Also, at regional level cattle ranching corresponds to approximately 20% of the agricultural GDP, while occupies 80% of agricultural land, i.e. approximately 650 million hectares out of a total 800 million hectares occupied by the overall agricultural activities.

Brazil produces – including pork and chicken – 14 million tons of meat, as well as 10 million tons of beef. In order to feed all the pork and chicken we need 50 million tons of grain meal (already discounting the amount that goes to horses, fishes and egg production). This requires, at an average rate of roughly 3 tons per hectare and already discounting oil, the use of approximately 22 million hectares. On the other hand, production of 10 million tons of beef requires at least 200 million hectares. This means that land spacial footprint of cattle ranching is approximately 15 times higher than those of other types of meat.

Another important element is that we have a significant degraded pasture area, but costs associated to recovery of degraded land are at least 4- to 6-fold higher than those of appropriating new land over the frontier, through deforestation. Forest frontier land is free to obtain, offers initial timber revenues and a fertile start.

It should also be kept in mind that regional climate change, in addition and even earlier than global one, is going to affect to a significant extent agricultural productivity in the region, over the coming decades, even more than it already happened in this decade.

Brazil has an extraordinary role in the global agricultural market. It is first in both production and trade of sugar, coffee, orange juice and beef, it is second in both production and trade of soybeans, second in production and fourth in trade of soy oil, first in production and second in trade of chicken, fourth in production and trade of pork, second in production and first in trade of ethanol, etc.

Such leadership brings along a legitimacy to develop the basis of a future, global certification system that would apply to the whole agricultural sector. Crop-related and chain-specific roundtables have proliferated over the recent years, leading to sectoral, ad hoc criteria and indicators for good practices on palm oil, sugar, soy, biofuels, coffee and other commodities. These roundtables should not be regarded as a panacea: often they have difficulties in capturing the complex dimensions of some of the critical challenges that face their respective chains, typically those displacement effects, that we use to refer to as “leakage”, and that are so important in terms of the footprint of these activities. While it should be kept in mind that voluntary, market-based instruments such as verification and certification should not be seen as the solution for lack of governance or perverse subsidies that make agriculture unsustainable, it should also be remembered that their development is crucial to guarantee transparency and to make sustainable any improvement that agricultural activities can achieve. In other words, they are not sufficient, but they are necessary.

To respond to this demand, it is now needed that a cross-cutting system is created to accredit different sectoral standards and seals that serve different market expectations, in different regions. For this reason, Brazil has taken the lead and, after two years of tripartite negotiation between an economic, an environmental and a social chamber, this system is now under public consultation within the country and hopefully it will expand globally in the coming future.

Ladies and gentlemen, the challenge for the implementation of rural development strategies is to combine, as envisaged by prof. Ignacy Sachs, a continuous flow of innovation leading to higher yields per hectare, combined with higher labor productivity and a broader range of products derived from biomass. The challenge we are facing is to invent a modern biomass-based civilization, powered by solar energy harnessed through photosynthesis.

The chance for development in developing countries depends on knowledge- and labor-intensive investments that, at the same time, are as much as possible capital and resource saving. Biomass-based civilization goes much beyond the production of food. It includes food and animal feed, fiber, green fertilizers, biofuels, industrial feedstock, construction materials, pharmaceuticals and cosmetics.

The prospect of biomass-based civilization is particularly bright for tropical countries, which enjoy a permanent climatic comparative advantage with respect to the primary productivity of biomass.

But as concrete propositions concerning the production and uses of biomass must be ecosystem-, culture- and even site-specific, progress in this area will be conditioned by domestic research capabilities, much more than by a North-South transfer of techniques.

And here we need to highlight two important limitations: first, even in those developing countries where some agricultural research is developed, this is mainly through government funding, while private sector basically invests in marketing and agrochemical extension, seedling, etc.; the second one is that specialised agricultural systems tend to replace labor intensity with fossil intensity, employ less people and generate spending power at local level.

While agriculture is definitely more than just food, ladies and gentlemen, I would also like to stress that, conversely, food is much more than agriculture. Talking about the future of food requires thinking about the way we want to live and how we preserve culture, diversity, health and quality of life across the planet.

As a member of the National Commission on the Social Determinants of Health in my country, over the last couple of years, I have realised that obesity now comes even before hunger as a cause for diseases, also among the poor, in Brazil and increasingly in many countries.

World consumption has shifted away from cereals, roots, tubers, beans and moved towards more fat, sugar, meat and dairy.

Disruption of terroir, of culinary tradition and cultural competitive advantages are fast-growing phenomena in the last couple of decades.

Even at high level, gastronomy has paradoxically delivered a message that losing culture is no problem: on the one hand, by making culinary art a show that you passively attend, on the other by creating perverse concepts such as the one of “fast good”, which replaces the value of celebrating food with a labeled *griffe* product.

It is time, as Brillat-Savarin would say, for a new physiology of taste, rooted in terroir and culturally diverse. We also need to listen to people as the Catalan chef Santi Santamaria, thinking to a new ethics of taste. Tradition, knowledge and sustainability, along with respect for the ingredients and the habitats that are home to them, can become the basis of a cosmopolitan diversity, instead of a homogeneous globalization, in both culinary arts and in the day-to-day way-of-eating.

Producing more food does not alleviate hunger. Actually, it sometimes contributes to it, by displacing rural people. The challenge ahead is not producing more food, but rather how to produce the right food, in the right place, at the right cost including the real externalities, and providing access to those who most need it. These are the lessons from the recent climate and financial crisis, showing that it is not cautious to anticipate the consumption of either the environmental space or the financial resources of the coming couple of generations.