
**The Economist Conference
Feeding the World in 2050
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Keynote Address by José Graziano da Silva,
Director-General of the Food and Agriculture Organization
of the United Nations (FAO)**

Matthew Bishop, Dougal Thompson, fellow panellists, ladies and gentlemen.

My thanks to The Economist for inviting me to open this conference on the 9 billion people question: how will we feed the world in 2050?

1. I want to start off by saying, briefly, why fighting hunger makes sense. The right to food is one of the most basic human rights; however, it is still absent from the lives of around 925 million people.

2. Food security is a stepping-stone for economic and social inclusion. A hungry person has no voice, has no vote. Under these conditions, when the voice is heard it is often the voice of despair and violence.

3. Fighting hunger also makes economic sense: if children are properly nourished, they can learn more, lead healthier lives and be more productive when they become adults.

4. It's good for business, and it's also good for governments: investing in adequate nutrition can reduce health, education and social security costs. Promoting food security should be seen as an investment that benefits the entire society, not as an expense.

5. With regard to the question we are asking today, I want to say that we have the right one: it is HOW and not IF we can feed the world in 2050.

6. We have the resources to guarantee food security for all, today and in four decades from now.

7. In 2009, FAO estimated that we needed to increase overall food production by some 70 percent between 2005-2007 and 2050 to feed 9.1 billion people.

8. Ninety percent of this growth would come from higher yields and cropping intensity and ten percent from increased land use.

9. FAO ran the same calculation again last year and, thanks to updated information available, we are now looking at the need to increment agricultural output between 2005-2007 and 2050 by 60 per cent, for both food and non-food uses, but with the latter including only moderate increases in the use of crops as feedstocks for biofuels.

10. This conclusion reflects, *inter alia* but primarily, the prospect that global demand will be growing at much lower rates than in the past for the following reasons:

- Population growth will be lower and there will be population declines in several countries and regions, including Japan, China, Brazil and Europe.
- More countries and population groups will be gradually attaining levels of per capita food consumption beyond which there is little scope for major further increases.

- At the same time, there are several countries in which food demand could increase faster, because they are starting with low levels of food consumption per capita and many of them will continue to have high population growth rates. However, such potential may not always be expressed fully as effective demand because they may still have low incomes and significant poverty for a long time to come.

11. If we agree that these projections are the standard to measure food needs for 2050, an important next step is to see what we can do to guarantee food security without needing to increase agricultural output to 60 percent. This is important because of the impact that any production increase has on our natural resources.

12. The way to do this is by finding other possible answers for feeding the world. The two main issues I want to look at are food production and consumption.

13. Throughout the world we lose or waste one third of all the food produced every year. This means, roughly, 1.3 billion tonnes of food per year, according to a study released last year by FAO and the Swedish Institute for Food and Biotechnology.

14. Food loss has to do with the production, post harvest and food processing stages in the food chain.

15. Food waste happens at the end of the chain, in retail and consumption. It has to do with throwing away food that is still perfectly edible.

16. In developing countries, 40 percent of losses occur during post-harvest, processing, transporting and storage, while in industrialized

countries more than 40 percent of losses happen at retail and consumer levels.

17. We need to look at ways in which we can make better use of the food we produce, reducing loss and waste. We can make significant improvements if we involve the public and private sectors, producers and consumers.

18. In general, if we improve and expand local food production and consumption circuits, we can reduce losses with transportation and storage.

19. In low-income countries, measures that target the production side should be given most attention: improving harvest techniques and infrastructure such as roads, storage facilities and cooling chains.

20. In industrialized countries, the focus should be on food and nutrition education to reduce waste. Per capita waste by consumers is between 95 and 115 kilograms a year in Europe and North America, while consumers in sub-Saharan Africa and South and Southeast Asia each throw away only 6 to 11 kilos a year.

21. If we could reduce food waste and loss by roughly 25 per cent, we would have additional food for about 500 million people a year without having to produce more.

22. More study still needs to be done to quantify food loss and waste, but I wanted to bring these numbers into the discussion because they can have a major impact on answering the 9 billion people question.

23. What I am trying to say is that we need to look not only at the production side, but also at consumption. It's especially important when we consider the environmental implications of increasing food production.

24. With the 1960's Green Revolution we were able to greatly boost food production.

25. The productivity gains we have had in the past fifty years were mainly thanks to the intensive use of inputs, fertilizers and pesticides. However, this has taken its toll on the natural resources. We cannot produce more food the same way. It's not sustainable. And there is the added challenge of climate change.

26. That is why many, including myself, have been speaking out about the need for greening the green revolution, or a double green revolution. We need a new production paradigm. Last year, FAO presented "Save and Grow", which is exactly that. It offers a guide to policymakers on how to sustainably intensify smallholder crop production, especially in developing countries.

27. The focus on small-scale production is important because they are usually the farmers with less access to resources, technology, and assistance. And frequently have much lower yields than large-scale production.

28. The ecosystemic approach proposed by "Save and Grow" can help farmers have better productivity and preserve natural resources.

29. Conservation Agriculture is one example. It can reduce the need for water by up to 30 percent, energy costs by 60 percent and increase yields.

30. However, this shift in production model costs money and small-scale farmers need policy assistance and investments to bridge the gap they have with modern the modern agribusiness system.

31. Among other things, we also need research directed to both high and low potential farming areas, because most of the poor rural population lives in marginal areas.

32. If we look at the post-war global scenario we can claim to have been highly successful in increasing agricultural production. There is 40 percent more food available for every person today than there was in 1945, when FAO was created, in spite of a record growth in population from 2.5 billion to today's seven billion people. But we have been far less successful in ensuring that the extra production generates equitable benefits. The evidence of our collective failure is that almost one billion people are undernourished and more than one billion people are overweight or obese.

33. Hunger is a global challenge and we need to put in place a more efficient governance system for food security. The renewed Committee on World Food Security, hosted by FAO, in which governments, civil society and the private sector sit at the same table, is a positive step in this direction.

34. The importance the G-20 has given to food security is also very important. At their request, FAO is supporting AMIS – the

Agricultural Market Information System - to give more transparency to the food commodities markets.

35. But we need to complement actions at the international level with others at the local level, because people don't eat at the global markets. People eat in their homes, in their cities and villages.

36. That is why we need to support small-scale and local production. These local circuits are also part of a sustainable solution to food security.

37. Improving access at the local level is key to food security. The way we are now, we risk having, in 2050, a world which has enough food for all but still has millions of malnourished people. Very similar to today.

38. Even if we expand overall agricultural output by 60 percent, the prevalence of undernourishment in developing countries is still expected to be 4 percent in 2050. That means over 300 million people without enough to eat, with sub-Saharan Africa having the highest incidence of hunger in the developing world.

39. The reason why is simple: as today, these people would not have the access to the food they need, either because they are unable to produce it for themselves or because they don't have the necessary income to buy it.

40. Around 75 percent of the world's food insecure population lives in rural areas, and poor farmers usually have lower productivity rates. We need to look there for the answer to the hunger problem. We need to produce food and increase food supply where it is

needed the most, in developing countries, and combine it with action to improve access to food by the most needy.

41. In different parts of the world, we are seeing innovative ways to link local production with consumption through cash for work and cash transfer programmes. These not only increase the resilience of vulnerable families, but also, by translating their unmet food requirements into demand, stimulate local markets and production.

42. I just came back from a mission to Africa - Ethiopia, Kenya and Somalia. I went there because the Horn of Africa is my priority.

43. We were able to announce the end of famine conditions in Somalia, thanks to long-awaited rains, the support given to farmers and the humanitarian and agricultural response of the last six months. Cash for work is being used as a component of our emergency response with positive results.

44. Despite the good news, the situation there is still very precarious. It depends on the next rainy season, and the work we do in the next few months. We can't prevent a drought, but we can put measures in place to try to prevent it from becoming famine. This means giving immediate assistance but with a long-term vision, increasing the resilience of this population.

45. The food insecurity in Somalia, South Sudan, and in other parts of the world should give us the sense of urgency we need to fight hunger.

46. To build a food secure 2050, we need to start now. But this is not a goal that FAO or any government will reach alone. The private

sector has an important role to play in all these aspects I have mentioned; so has civil society.

47. Eradicating hunger is a goal that an entire society must set together. If we do so, it is possible to reach it before 2050.

48. To end, I want to summarize three points:

- From the global point of view, food production is not an issue. We need to look at specific countries, such as those in protracted crises, to expand food production where the poor live.
- To answer the 9 billion people question, we can't look only at the production side, we also need to look at consumption. That ranges from access at one end to reducing waste at the other.
- And small-scale farming should be seen as part of the solution to the hunger equation, not only a problem.
- The Rio Plus 20 Conference will happen in a few months. Hopefully, these issues will be at center-stage as food security, agriculture and sustainable development are closely related. It's up to us to put it there.
- Finally, I want to congratulate the Economist for this initiative. I hope that other conferences will follow. And, if I may make a suggestion, I would like to propose that in future meetings we also have the participation of representatives of civil society and farmer organizations among the panellists, to add to what I am sure will already be a rich and fruitful debate.

Thank you.