

# Ending hunger and achieving food security for all

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## Answers to the Guiding Questions - Eugenio Díaz-Bonilla (IFPRI, Head of LAC Program)<sup>1</sup>

1. **Which areas and socio-economic groups** are especially vulnerable to poor nutrition and food insecurity and what are ways to ensure that food systems transformations leave no one behind?

We need to distinguish different types of poor nutrition or malnutrition: undernutrition (insufficient intake of calories, or “hunger”); lack of a variety of essential nutrients (“hidden hunger”); and overweight and obesity. The main areas affected by undernutrition are basically: a) those suffering from war and violence (domestic and/or cross-border) (for example, Yemen, Syria, Venezuela); and b) those with low natural resource-to-population ratios, and unfavorable weather patterns, all of which is being exacerbated by climate change and extreme events (such as Haiti and Central America, Sub-Saharan Africa, and some countries in South and South East Asia).

To say that the most vulnerable socio-economic groups are the poor does not add much to our analysis, in part because the extreme poverty line is simply the calculation in value of the minimum amount consumed of calories per day and per capita (therefore, in principle, both indicators measure the same variable, consumption of calories, one in value and the other in quantity; but because the methodologies and data sources to calculate them are different, then the numbers of the extreme poor and the undernourished may differ somewhat). Poor countries and areas would also lack water and sanitation and health infrastructure in general, that may reduce the absorption of nutrients, even if the availability and economic and physical access were not a problem. Discrimination by gender, ethnicity, caste, religion, or other factors, would add to the problems of undernutrition in some groups. Quantitative analysis has shown that indicators of women empowerment (such as girls and women education) are positively correlated with better food security.

In some cases, the four factors (war and violence, unfavorable natural resource and environmental conditions, poverty, and discrimination), may overlap and interact in ways that further deepens food insecurity and undernutrition in certain areas and for some socio-economic groups.

The second malnutrition problem is more general, and because it refers to deficiencies in a variety of macro and micronutrients, it does not allow an easy characterization of what areas or socio-economic groups are more affected. In general terms, those suffering from the first malnutrition problem discussed so far, would also be lacking other crucial macro and micronutrients. Countries with less diversified diets (such as countries consuming mainly a single cereal, such as rice or maize) would also be affected. But countries and socio-economic groups suffering from overweight and obesity would also most likely be deficient in several key vitamins and minerals due to unhealthy diets.

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Finally, the impact of overweight and obesity seems to be affecting more countries and socio-economic groups in the middle-income bracket (rather than those with lower and higher incomes); more women than men; more those with lower educational levels; and more in urban areas, where in particular the poor are consuming high-calorie and nutrient-deficient diets (with faster increases in obesity and non-communicable diseases). Countries in some regions (for instance in the Caribbean and in Middle East and North Africa) appear to have higher levels of obesity than what can be explained statistically by the usual drivers of that problem.

Public policies, investments and other interventions need to differentiate what is the problem being addressed.

2. **What fundamental changes are needed** to make our food systems an engine for inclusive growth and contribute to accelerating progress towards ending hunger and achieving food security for all in the Decade of Action?
  - a) How could they be designed and implemented to generate synergies and strengthen existing ones with other Goals and Targets?
  - b) What are some of the possible trade-offs from these changes and how can they be mitigated?

The global food system needs to be transformed into one that is nutrition- and health-driven (considering the triple burden of malnutrition), productive and efficient (more food with fewer resources, and reducing food waste and loss), environmentally sustainable (with climate-smart technologies), inclusive and just (especially regarding the rural poor and vulnerable and discriminated groups), and based on a diverse, competitive, and dynamic private sector (which requires an enabling policy and investment environment, including adequate macroeconomic, sectoral, institutional and regulatory policies, and good governance and peace). Some aspects of the multi-faceted program needed to achieve the transformation of food systems are briefly highlighted (See Díaz-Bonilla, 2015 and Forthcoming 2020).

#### Macroeconomic Policies

Monetary, fiscal, financial, exchange rate, trade and other macroeconomic policies must be part of a consistent policy framework to avoid internal and external imbalances and the related economic crises. In particular, countries need to avoid exchange rate appreciation.

#### Organization/Institutions for Agri-food systems

The complexity of food systems requires a) a cross-cutting organizational arrangement (coordinating different Ministries and agencies); and b) an integrated programming and budgeting scheme aligning the interventions and the multiple objectives, along with a monitoring of execution.

#### Policy Instruments

In addition to institutional and operational innovations, one must consider innovations in policy instruments. Here we emphasize two.

It is necessary to develop specific models of social protection that consider the characteristics of the rural poor. Conditional transfer programs in rural areas should be adapted, maintaining aspects of social assistance, but also broadening the focus towards productive and

technological support that can improve the economic and environmental sustainability of the poor families involved.

Regarding instruments with focus on nutrition and health issues, different countries have developed or are developing comprehensive programs, with different interventions. Here we emphasize the importance of frontal package labeling with easily interpretable information, such as in the case of the Chile.

#### Infrastructure and small and intermediate cities

Developing countries need a program of investments in infrastructure and the network of small and medium cities.

#### Technology

We emphasize three issues (Díaz-Bonilla, Forthcoming 2020). First, the need to invest in the "third revolution" of biology. It has important promises for agricultural production; ecosystem management; food processing, transportation, and storage; energy sources; and for human health. Developing countries need to invest more on R&D as percentage of their GDP, and more resources are need at the global level for organizations such as the CGIAR.

A second area is agri-tech and digital technologies that can support activities such as a) cooperative research with farmers and better extension; b) e-platforms for marketing products and services; c) fintech for financial inclusion and insurance; d) platforms for delivery and monitoring of other public services; e) tracking to ensure food safety, quality and traceability and to manage losses and waste; and similar issues.

Finally, a third area of accelerated technological innovations with important implications for agri-food systems is energy. This topic goes way beyond biofuels and whether they can be made with non-food raw materials. The innovations related to shale gas and oil are now been followed by an accelerated wave of technological changes in solar and wind energy, and in electric cars. Countries need to join this energy transition.

#### Financing

A key question is how to finance the needed transformation of agri-food systems. This requires a) a better analysis of the operation of the banking/financial systems; b) an evaluative review of public spending with focus on SDGs; and c) the creation of a project preparation/incubation/acceleration facility or facilities that may link the important levels of liquidity in the private sector with investable projects and financial instruments (Díaz-Bonilla et al, 2018; Díaz-Bonilla, 2018).

### **3. How might COVID-19 facilitate or complicate the implementation of needed food systems changes?**

#### a) Will it aggravate and/or reduce vulnerabilities?

COVID-19 is aggravating all vulnerabilities. It is increasing poverty and unemployment, and eroding the human capital (health, nutrition and education) of low-income people. It is increasing costs and prices of food, particularly those highly perishable and labor intensive. It is stopping development interventions that were aimed to increase agricultural productivity of

poor rural communities through training programs and delivery of agricultural inputs, or nutrition and health programs. Due to social distancing and lockdown policies, already vulnerable populations might not receive the social and economic services and inputs that they need. After the pandemic is over programs for the poor and vulnerable will have to be scaled up to recover the ground lost during this period.

- b) What are the changes in design and implementation of policies affecting food systems which are necessary to prevent and better deal with food security and nutrition impacts of infectious disease outbreaks and pandemics in the future?

Healthier foods, such as vegetable and fruit crops, or high-quality proteins, tend to be labor intensive. Also, formal and informal processing, transportation, retail and food outlets are labor intensive. Standards, procedures and guidelines for food safety and workers protection (including protective apparel, redesign of workplaces and retail outlets) will have to be put in place. Protecting workers will become the only way of protecting the consumer, since if the workforce falls ill, there will not be products in the markets, or the markets will have to close due to contagions.

It is critical to work with the informal sector as well, since in many developing countries food is supplied through informal channels. Lowering costs to formalize the economy and extending the safety net to accommodate more vulnerable populations is essential to keep food systems alive.

- c) What of the current immediate actions we are seeing will contribute to the long-term resilience of food systems?

The pace of digitalization of information systems and coordinating mechanisms for food marketing and auxiliary services along the whole food system is accelerating. Eventually, this may lead to more direct sales of food products from farms, strengthening short-circuit food chains.

4. **What knowledge and data gaps need to be filled** for better analyzing current successes and failures in food systems and the trade-offs and synergies, across SDGs, in implementing food systems changes to fix these failures?

The knowledge requirements to transform food systems are vast. Here we emphasize the technological aspects: advancements on the knowledge of plant (and animal) genetics that underpinned the green revolution yielded tremendous advancements in agricultural productivity and was a main force that helped to reduce food insecurity globally. But it focused only on some food products, and the same effort was not been made towards building sustainable agriculture. New and expanded research must broaden the focus a) in terms of objectives (production, efficiency, social inclusion, resilience, environmental sustainability, landscape services, biodiversity) considering all the externalities generated, and b) in terms of diversifying products.

5. **What partnerships and initiatives are needed** to harness synergies and/or reduce trade-offs in food systems?

- a) What are the most critical interventions and partnerships needed over next 2 years, 5 years, 10 years?

It depends on the problem that must be solved. Hunger and malnutrition resulting from war and violence require strong diplomatic efforts backed by economic and other inducements to the parties in conflict. On the other hand, if the problem is the operation of agri-food systems that do not generate employments and inclusion, and produce unhealthy diets in inefficient and environmentally unsustainable ways, then what is needed is a more integrated effort at transforming food systems, including most of the interventions discussed in question 2.

- b) Can these be scaled up or adjusted to fit other contexts?
- c) How can private sector support investments for sustainable agriculture production and supply reduce food insecurity?

We try to answer the last two points together. The transformation of the agri-food systems will require large investments, which must come basically from the private sector. And the private sector will invest as long as it is profitable to do so. This assumes the existence of consumer demand (which the public sector may help to develop through education, consumer information and labeling, regulations about multivitamin enriched products, subsidies, and public sector expenditures in complementary investments and services). That transformation also requires financing. There is a large amount of liquidity at the global level with very low returns, but at the same time there are not enough investable projects and financial vehicles offering opportunities for that liquidity. What is need, as argued before, is the creation of a project preparation/incubation/acceleration facility or facilities that may link the large pools of liquidity in the private sector (ESG investments, impact investors, “green bonds” and the like) with investable projects and financial instruments that can help transform agri-food systems (Díaz-Bonilla et al, 2018; Díaz-Bonilla, 2018).

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