



Achieving Sustainable Food Security for All by 2020

Priorities and Responsibilities

Each day our world witnesses 800 million people go hungry and 170 million children under 5 years of age suffer from malnourishment. This situation is a human tragedy on a vast scale, made even worse because it is avoidable.

IFPRI was founded in 1975 to identify and analyze policies for sustainably meeting the food needs of the developing world. Research at IFPRI concentrates on achieving economic growth and poverty alleviation in low-income countries, improving the well-being of poor people, and sustainably managing the natural resource base that supports agriculture.

The 2020 Vision for Food, Agriculture, and the Environment is an initiative of the International Food Policy Research Institute (IFPRI), launched in 1993 in collaboration with partners around the world. The 2020 Vision Initiative seeks to develop and promote a shared vision for how to meet the world's food needs while reducing poverty and protecting the environment and seeks to generate information and encourage debate to influence action by all relevant parties.

In September 2001 IFPRI and its 2020 Vision Initiative, in collaboration with partners, organized an international conference called “Sustainable Food Security For All by 2020” in Bonn, Germany. IFPRI drafted an initial action plan and obtained feedback on it from the more than 900 people who attended the conference, as well as many others.

This document presents the highlights of the revised action plan (published separately as *Reaching Sustainable Food Security For All by 2020: Getting the Priorities and Responsibilities Right*). Although the action plan reflects the helpful advice received on the draft, it does not represent a consensus as such. Rather, it reflects IFPRI's best judgment, as an institution, about the driving forces influencing the long-term prospects for food security and the actions needed over the next two decades to free humanity from the scourge of hunger. Our hope is that the plan and these highlights will help spur policymakers and others to take the necessary steps, now so long overdue.



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May 2002

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
WASHINGTON, D.C.

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ISBN 0-89629-645-8

At the World Food Summit (WFS) of 1996 the global community agreed on an achievable target: to halve the number of hungry people in the world by 2015. To reach this target 22 million people need to escape from food insecurity every year. But only 6 million have been fortunate enough to do so each year. Given the progress so far on this goal, this commitment seems to have been mere lip service. In the years since that summit, the countries who undertook this commitment have made choices each year about how to spend money and expend effort and about what policy goals to pursue. For the vast majority, food security has never made it near the top of the agenda.

What would the world look like if the commitment, not only to the WFS goal but to food security for all, were real? The 2020 Vision of the International Food Policy Research Institute describes it this way: a world where every person has access to sufficient food to sustain a healthy and productive life, where malnutrition is absent, and where food originates from efficient, effective, and low-cost food systems that are compatible with sustainable use of natural resources. The benefits to the poor and hungry are obvious—the possibility of a healthy and productive life, perhaps for the first time. Yet the gains to the well-off also bear mentioning: a world with less risk of conflict over scarce resources, less need for costly emergency relief, a healthier worldwide economy, less poverty-driven migration, less environmental degradation.

Achieving the 2020 Vision is by no means easy or simple, but it can be done. In the late 1950s and early 1960s much of Asia was written off as a hopeless basket case. Yet since 1970 the number of food-insecure people in developing countries fell by 17 percent to the current 800 million, even with rapid population growth. Between 1990 and 1997 China reduced its number of food-insecure people by nearly 80 million. Costa Rica, Egypt, Ghana, and Thailand, for example, have made progress as well.

With the policies and approaches now being pursued in most countries and international organizations, however, there is no possibility of achieving sustainable food security for all by 2020. The Food and Agriculture Organization of the United Nations projects that even the more limited WFS goal will be met not by 2015, but by 2050. IFPRI projections for the year 2020 show that in the most likely scenario, the number of malnourished preschool children could decline by about 20 percent, but as many as 130 million children will still be afflicted by malnutrition. They will either die prematurely or



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fail to reach their full human potential. Economies will fail to grow rapidly or equitably as a result.

This prospect is not inevitable. The experiences of China and other countries point to the steps that can effectively reduce and ultimately eliminate food insecurity. If governments, international agencies, nongovernmental organizations (NGOs), business and industry, and individuals are willing to back their words with sustained actions, great progress is possible.

Nine Critical DRIVING FORCES

The conditions under which food security efforts will take place are constantly changing, and without a clear understanding of these changes, national and international decisionmakers have little hope of achieving the 2020 Vision. Nine driving forces, in particular, will be critical for their efforts.

1. Accelerating Globalization and Further Trade Liberalization

Without the right policies and institutions at both the national and international levels, globalization may either bypass or harm many poor people in developing and developed countries alike. Policymakers will need to guide the globalization process so that it benefits poor people, improving their food and nutrition situation while preserving their natural resources.

2. Sweeping Technological Changes

Technological advances in molecular biology, energy, and information and communications have the potential to help achieve food security for poor people and make natural resource management more sustainable. If, however, researchers and policymakers continue to focus on meeting the needs of well-off people in rich countries, the result will be scientific and technological apartheid.

3. Degradation of Natural Resources and Increasing Water Scarcity

Degradation of natural resources is rampant in areas with poor soils, irregular rainfall, dense concentrations of population, and stagnant agricultural productivity. This environmental degradation contributes to poverty, but also often results from it. Food security solutions that fail to address natural resource issues effectively will not be sustainable.

4. Health and Nutrition Crises

Malaria, tuberculosis, micronutrient deficiencies, HIV/AIDS, and chronic diseases are all compromising food and nutrition security in many developing countries. These global health crises not only destroy human lives, but also slam the door on opportunities. They are impoverishing millions of people, raising the cost of health care, and causing severe shortages of productive workers.

5. Rapid Urbanization

By 2020 many of the people in the developing world will live in urban areas, where they will make heavy demands on the capacity of these cities to provide jobs, education, health care, and food. Although current policies must continue to focus on the countryside, where the majority of poor and food-insecure people still live, future policy actions must pay increasing attention to growing poverty, food insecurity, and malnutrition in urban areas.

6. The Changing Face of Farming

The nature of farming is changing rapidly in many developing countries because of the aging of the farm population, the feminization of agriculture, labor shortages and depleted assets resulting from the HIV/AIDS crisis, and the decreasing cost of capital relative to labor. Small-scale family farms, traditionally the backbone of much of developing-country agriculture, are under threat.

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7. Continued Conflict

Violent conflicts continue to cause severe human misery in many developing countries, especially in Sub-Saharan Africa. Although humanitarian assistance can provide food and shelter for the many millions of refugees and displaced persons, policymakers must deal with the underlying causes and the effects on the people in war-torn and neighboring areas. Achieving sustainable food security for all will not be possible in the midst of conflict.

8. Climate Change

Many scientists and policymakers believe that climate change is leading to more frequent and more severe natural disasters. More research is needed on this hypothesis, as it has profound implications for food security. Future agricultural policies must focus on finding ways to keep agriculture productive as climate change continues.

9. Changing Roles and Responsibilities of Key Actors

National governments in many developing countries have found themselves playing a new and diminished role in the past couple of decades. Now local governments, business and industry, NGOs, and other parts of civil society are undertaking many activities previously performed by national governments. At the global level, transnational corporations and broad NGO coalitions are becoming increasingly prominent in policy debates. National governments must not risk losing their capacity to perform the functions that only they can perform, such as ensuring the rule of law and developing nationwide infrastructure.

Seven Pro-poor **ACTION AREAS**

So, within this changing environment, what steps have proved to be most effective at achieving food security? To begin with, rapid economic growth is essential for achieving sustainable food security for all by 2020. The challenge is to achieve that growth in a way that benefits the poor—that is, pro-poor economic growth. This kind of growth, together with empowerment of the poor and effective provision of public goods, will be the foundation of any successful attempt to achieve the 2020 Vision. The specific policies that will be most appropriate will vary according to local and national circumstances.

This document describes seven areas of action that are expected to be high priorities globally or for many countries. They are listed beginning with those that operate at the individual and household levels and moving to those that operate at societywide and international levels. The 2020 Vision will not be achieved by action in one or the other of these areas alone. The causes of food insecurity, malnutrition, and unsustainable natural resource management are complex, and comprehensive solutions must address all seven priority areas.

1. Investing in Human Resources

Healthy, well-nourished, literate citizens are an essential precondition for successful pro-poor economic growth. Certainly, universal access to primary and preventive health care is essential to achieving a healthy population. In particular, governments and international agencies must take steps to contain the HIV/AIDS pandemic, which has taken a devastating toll in so many countries.

Millions of people suffer from the severe consequences of micronutrient malnutrition. Several strategies, taken together, hold potential for success in fighting this problem: food fortification and supplementation with needed micronutrients, nutrition education to promote healthy diets, and development of staple crops rich in iron and vitamin A.



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Access to clean water and safe sanitation are also critical for people's good health and good nutrition. Contaminated food and water are sources of much illness and death in developing countries. Policies and institutions are needed for improving sanitary conditions, storage, transport, processing, conservation of food, and other cost-effective ways to prevent food- and water-borne illnesses.

Like good health, education has a tremendous impact on economic growth and on the material well-being of individuals. Today's global economy increasingly places a premium on knowledge-based skills. When poor people achieve literacy and numeracy, they have greater opportunities to earn income, advocate supportive policies, and increase their social capital. Educating girls, especially, has beneficial effects on family size, spacing of births, child care practices, child nutrition, and household income. Improvements in educating girls and women during the past 30 years accounted for a greater share of gains in child nutrition in developing countries than any other factor. Food-for-education programs can be effective in achieving the dual goal of better education and improved food security.

2. Improving Access to Productive Resources and Remunerative Employment

Pro-poor economic growth can take place only if poor people have access to productive resources and remunerative employment. As urbanization proceeds, the need for jobs in urban areas is growing. With 75 percent of the poor still living in rural areas, however, rural people's access to productive resources and employment is critical. Small-scale, nonagricultural rural enterprises can play an increasing role in providing livelihoods for rural people. More productive agriculture is also vital, for productivity gains in agriculture can boost the incomes of rural people both on and off the farm. To the extent that gains in agricultural productivity lead to lower food prices, they will benefit poor consumers. Increasing productivity in agriculture can also slow the pace of rural-to-urban migration. A healthy agricultural economy also offers farmers incentives to conserve the natural resource base.

Yet many poor rural people do not have the tools they need to be more productive farmers. They need access to credit and savings institutions, yield-increasing crop varieties, improved livestock, appropriate tools, fertilizer, and pest management technology, as well as secure access to land.

Poor people must be active participants in their development, and civil society organizations can encourage this participation. Farmer organizations, for instance, can help facilitate small farmers' access to inputs, credit, output markets, and opportunities to engage in more diversified, higher-value crop production. Associations of small-scale traders can facilitate the exchange of information between traders, expand marketing networks, and enable access to credit.

Productive resources must go not only to men, but also to women, for gender equality is an important contributor to food security. Women play important roles as producers of food, managers of natural resources, income earners, and caretakers of household food and nutrition security. Research has shown that giving women the same access to physical and human resources as men increases agricultural productivity dramatically. Women's assets also increase how much households spend on the welfare of their children.

3. Improving Markets, Infrastructure, and Institutions

Many rural regions consisting primarily of poor people, including small farmers, are often the last regions to get investments in infrastructure and, partly for that reason, markets in these areas are poorly developed. Rural poor people, whether farmers or not, will not benefit if they are excluded from participation or fair competition in the mainstream market economy.

The development of private competitive markets, especially in rural areas, is likely to contribute enormously to poverty alleviation, food security, and the overall quality of life in developing countries. Markets perform better and marketing costs fall when the government turns over trade to a competitive private sector.

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Farmers must be able to choose agricultural practices and technologies from the full range of approaches available for tackling their problems—agroecological methods, conventional research methods, and molecular biology research methods.

Yet even as the government reduces its role, competent public administration and investment in public goods will remain essential to assure that contracts are enforced, grading and quality control standards are maintained, and safety nets are provided for vulnerable groups, among other things.

4. Expanding Appropriate Research, Knowledge, and Technology

Technological developments in the biological sciences, energy, and information and communications offer new opportunities that could benefit poor people, their food security, and natural resource management. These benefits will materialize only if policies are in place to guide technological developments toward solving poor people's problems.

Given that farmers cannot expand cultivated area in most developing countries without further damaging the environment, research and development (R&D) is essential to achieving sustainable yield increases on existing land. Although private sector research may produce some of the knowledge and technology small farmers need, publicly funded research is essential, partly because poor farmers offer business and industry too little profit potential and partly because much of the knowledge and technology they need is of a public goods nature. Hence, the current public underinvestment in agricultural research in low-income developing countries must be reversed.

Farmers must be able to choose agricultural practices and technologies from the full range of approaches available for tackling their problems—agroecological methods, conventional research methods, and molecular biology research methods, such as genetic engineering. Moreover, researchers must link these approaches more closely with indigenous knowledge.

Researchers have not yet fully exploited the productivity gains achievable from agroecological approaches and conventional technologies. New high-yielding varieties for rice, wheat, and a number of other crops are in the research pipeline at national and international agricultural research systems. In addition, molecular biology techniques can enhance the efficiency of conventional crop-breeding efforts.

Despite the controversy surrounding the use of modern biotechnology in food and agriculture, it has great potential to advance food security. Whether it will do so depends on the relevance of R&D to poor people; on the economic, social, and policy environment; and on the nature of the intellectual property rights governing the technology. It is not a “magic bullet” solution to hunger but rather one tool to be used in comprehensive efforts to address food insecurity.

New information and communications technologies can also be used to serve farmers, rural entrepreneurs, and health care workers. Policies should focus on expanding poor people’s capacity to connect to these technologies, putting content into local languages to make it useful, and stimulating competition to lower prices and increase market growth.

5. Improving Natural Resource Management

In many developing countries, poverty, low agricultural productivity, and environmental degradation interact in a vicious downward spiral. It is commonly thought that intensification of agricultural production usually leads to environmental degradation. Although this problem is occurring in many industrialized countries, in most developing countries too little intensification is a major cause of natural resource degradation, as desperately poor farmers mine soil fertility and climb the hillsides in an effort to survive.

Unless properly managed, fresh water may well emerge as the key constraint to meeting future food security. Globally, the world holds enough water to meet demand for the foreseeable future, but water is poorly distributed across countries, within countries, between seasons, and among multiple uses. Industries and households are increasingly demanding water at the expense of agriculture. A large share of the water needed to meet increased demand through 2020 must come from more efficient water use. Key elements of needed reforms include providing secure water rights for users and reducing or eliminating water subsidies.

Low soil fertility and lack of access to reasonably priced fertilizers constrain farmers in many countries. Policies should encourage farmers to make appropriate use of organic and inorganic fertilizers and improved soil management. Although fertilizer subsidies that encourage excessive and inappropriate use should be removed, subsidies may remain necessary for areas where current use is low and soil fertility is falling.



Democratic governments are more likely to be responsive to the needs of all their citizens, to make food security a high priority, and to welcome community participation.

Poor farmers have little incentive to adopt sound natural resource management technologies and practices if they do not have secure rights to land and other resources. Moreover, some technologies need to be adopted over a wide area to be effective, so adopting farmers must cooperate with their neighbors in collective action. Policies to improve natural resource management should therefore take property rights and collective action into account.

Policy, research, and technology priorities must also consider the challenges posed by increasing global warming: increased carbon dioxide concentration, higher temperatures, changed rainfall patterns, and more severe weather fluctuations. Farmers can adopt many practices to alleviate global warming, such as reducing the burning of crop residues, and planting trees and avoiding deforestation.

6. Good Governance

Good governance—the rule of law, transparency, the elimination of corruption, sound public administration, and respect and protection for human rights—supports efforts to achieve food security for all. Democratic governments are more likely to be responsive to the needs of all their citizens, to make food security a high priority, and to welcome community participation.

In the past 20 years or so the role of the public sector has shrunk while NGOs and business and industry have taken on additional responsibilities. Although this shift may be appropriate, it is important to recognize the limitations of the for-profit sector and of NGOs in providing public goods, such as peace, the rule of law, affordable access to clean water and electrical power, public health, public research, and rural transportation infrastructure.

Governments must have the political will to stamp out corruption and must persuade business and industry, NGOs, and citizens to work to this end. An independent judiciary and free and independent media can help achieve honest public administration. Training programs for civil servants and reasonable civil service salaries, paid on schedule, can help deter corruption. Governments must be willing to punish corrupt officials and to hold firms, banks, and institutions that are party to corruption accountable.

7. Pro-poor National and International Trade and Macroeconomic Policies

Unless governments are committed to long-term macroeconomic stability, reforms in agriculture are unlikely to be effective. Overvalued exchange rates and protection for industry, for instance, can do more to reduce farmers' incentives to increase production than lower agricultural prices.

Developing countries must participate effectively in the current round of global agricultural trade negotiations and pursue better access to industrialized countries' markets. Industrialized countries must reduce and eventually end trade-distorting agricultural subsidies. The World Trade Organization (WTO) should work closely with civil society and national governments to eliminate conditions that harm poor people, such as agricultural subsidies, price distortions and lack of competition in international trade, barriers to labor movement across borders, and import barriers by industrialized countries to goods and services from developing countries.

Trade alone, however, cannot raise developing countries out of poverty. Developed countries must continue the recent reversal in the decline in overall levels of development aid. Aid to agriculture and education are especially important to food security. Donor governments must fulfill their long neglected though oft-repeated pledge to devote 0.7 percent of gross national product to development assistance (a target currently met by only a few donors). Aid should be targeted on the basis of need, so that the least-developed countries, particularly those of South Asia and Sub-Saharan Africa, receive a higher share of assistance.

In addition to agriculture and education, donors should supply aid to other areas likely to help reduce poverty, such as health, nutrition, shelter, microcredit, infrastructure for poor communities and regions, and environmental protection. Bilateral aid should primarily take the form of grants rather than loans. Donors must also rethink their 20-year insistence on shrinking the role of the public sector, which has contributed to public disinvestments both where it was appropriate and where it was not.

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Developed-country governments and international financial institutions must do more to lift the burden of debt from highly indebted poor countries. These countries should then use resources freed up through debt relief to address poverty reduction, food security, health, education, and sustainable natural resource management.

WHOSE JOB IS IT TO ACHIEVE FOOD SECURITY?

The forces that produce persistent and widespread hunger are local, national, and international. National governments bear the primary responsibility for creating an environment within which individuals and communities can effectively address hunger. But the steps needed to achieve food security cannot succeed if they are carried out in a top-down, technocratic manner. Governments should forge partnerships with NGOs and business and industry and ensure that local governments and communities have the resources and authority they need to facilitate food security and good nutrition.

Other actors also have critical roles to play. The governments of developed countries should end trade-distorting policies; put resources behind their repeated pledges to provide more aid, but with better focus on contributing to sustainable food security and poverty reduction; and relieve the unpayable debt of poor countries.

In both developing and developed countries, parliaments and judiciaries can help advance food security along with executive branches of government. Truly representative parliaments can help assure that poor people have political voice and that policies are responsive to them. Independent judiciaries are needed to uphold the rule of law, enforce contracts, protect human rights, prevent arbitrary government action, and assure that governments uphold their obligations.

International organizations and multilateral institutions are an important source of development finance, technical assistance, and information. International institutions accountable to those affected by globalization must be developed.

Global civil society, from villages to transnational coalitions, has two important roles. First, it must continue to design and implement development activities. NGOs frequently operate development projects and programs that are cost-effective, well targeted, and participatory. In addition, its advocacy should continue to drive international development activities in a direction that is socially just.

Transnational business and industry should be encouraged to make useful proprietary technologies available to poor countries and communities, on a no-royalty basis. In addition, public funding can harness private R&D capacity for the benefit of poor people.

The private sector in developing countries, including farmers, is critical to producing food, developing local and national markets for agricultural products and inputs, providing credit, and investing in small enterprises to employ people and develop skills.

Finally, food-insecure people themselves are important actors in the struggle to achieve food security—not passive victims. When policies remove barriers and make opportunities available, food-insecure people work eagerly to achieve and maintain the freedom from hunger that is their right as human beings.

FINALLY, TIME TO ACT

Despite the pledges made at the 1996 World Food Summit, food security has not been a high priority on the global development agenda. Unfortunately for the world's people who are poor and hungry, talk has indeed proved cheap.

Governments have made choices about where to take action and allocate resources. In some instances, they have chosen to improve food security and reduce malnutrition; in too many other instances, they have chosen not to do so. In some cases governments of low-income countries need financial support or technical expertise in order to implement policies to achieve food security. Where governments have adequate capacity to enact appropriate policies but choose not to do so, they must be held accountable to their own citizens and to international public opinion.

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The cost of making significant progress toward the 2020 Vision is relatively modest. As an indication of the scale of the cost, an investment equal to less than 5 percent of the total expenditures by developing-country governments could reduce the number of malnourished children from the current approximately 170 million to 94 million by 2020.

The cost of not making the necessary investments, however, is high, even staggering. In the developed countries, the costs are greater global instability, more environmental degradation, and more emergency relief, among others. In the developing countries, millions will pay the cost with their lives.

Will tomorrow bring the world described in the 2020 Vision, or simply another conference at which leaders wring their hands over lack of progress? National governments and the other actors mentioned here hold the key to the future. Policymakers and leaders of development organizations must have the courage to manage the forces of change that can worsen poverty and food insecurity, rather than being buffeted by them. They must rearrange their policy priorities and budgets in a way that puts the well-being of the poor at the top of the list. They must begin to invest in people's health and education, strengthen markets and other institutions, improve natural resource management, and take the other desperately needed actions described here. And they must begin today.



Acknowledgments

The 2020 Vision Initiative gratefully acknowledges support for its general activities from the following donors: Canadian International Development Agency (CIDA), Danish International Development Agency (DANIDA), Swedish International Development Cooperation Agency (SIDA), and Swiss Agency for Development Cooperation (SDC).

The 2020 Vision conference activity received funding support from the following cosponsors: German Federal Ministry for Economic Cooperation and Development (BMZ), German Foundation for International Development (DSE-ZEL), German Agency for Technical Cooperation (GTZ-BEAF), Aventis CropScience, CARE, Cargill, Deutsche Welthungerhilfe, EuronAid, International Fund for Agricultural Development, Mellefolkkeligt Samvirke, Syngenta, and World Vision International.

The views expressed in this document are those of the authors and are not necessarily endorsed by or representative of the cosponsoring or supporting organizations.



This call for priorities and responsibilities arose out of a major international conference on "Sustainable Food Security for All by 2020," organized by IFPRI and its 2020 Vision Initiative in collaboration with partners in September 2001 in Bonn, Germany. IFPRI drafted an initial action plan and solicited feedback on it from the more than 900 policymakers, civil society leaders, private sector officials, academics, farmers, and others who attended the conference, as well as from many others. This document presents highlights of the revised action plan. It reflects the helpful advice received on that draft, but it does not represent a consensus as such. Rather, it reflects IFPRI's best judgment, as an institution, about the driving forces influencing the long-term prospects for food security and the actions needed over the next two decades to free humanity from the scourge of hunger. The action plan and the priorities and responsibilities it identifies are meant to help spur policymakers and others to take the necessary steps that are now so long overdue.



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RESEARCH INSTITUTE

sustainable options for ending hunger and poverty

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IFPRI® is a Future Harvestsm center principally funded by the Consultative Group on International Agricultural Research (CGIAR).

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Designed by: Joan Kirstin Stephens

ISBN 0-89629-645-8

