

Message from Ian Johnson, CGIAR Chairman

I feel very privileged to serve as the eighth Chairman of the CGIAR. Since my appointment in July 2000, I have used every opportunity to get to know the CGIAR better, visiting the Centers, consulting with the Cosponsors and Members, talking to farmers in the field, and seeing CGIAR scientists in action. This *CGIAR Annual Report 2000* reflects the high quality of science practiced throughout the CGIAR System over the past year.



The CGIAR started as a unique effort to mobilize agricultural research on the frontlines of the battles against hunger, poverty, and environmental degradation. Today, new challenges are being added to the development agenda—threats to the global environment, particularly climate change; the management of natural resources, such as land and water; and public health and nutritional concerns, to name a few. In this past year, we have seen growing evidence of the potential impact of these threats on agriculture, and, by definition, on the CGIAR’s research agenda.

Major transformations will occur as we seek to fulfill our vision of a world in which the CGIAR ensures that international agricultural research contributes, to the fullest possible extent, to poverty reduction and sustainable development.

In this year of change the CGIAR will be forward-looking and more innovative, mobilizing a critical mass of scientific expertise, and using cutting-edge science in efforts to resolve “big picture” issues that confront the development community. We will expand alliances and reinforce partnerships to enhance the overall impact.

A strong sentiment for change emerged at last year’s International Centers Week (ICW2000), when it was generally agreed that internal changes would be needed if the CGIAR were to be appropriately structured and adequately equipped to grapple with the problems of today and tomorrow.

There was broad agreement that the CGIAR must be relaunched, that it must be clearly seen to be changing in both form and function, with the existing strengths and experience of the System serving as the foundation on which a restyled CGIAR could be built. A Change Design and Management Team (CDMT), reporting to a Steering Group of rep-

resentative CGIAR stakeholders, was created to maintain the momentum of change. The CDMT’s proposals can provide a basis for CGIAR transformation.

FORMIDABLE CHALLENGES

As a scientific enterprise, the CGIAR has embraced change before. New research avenues have been explored, new Centers added, new Members welcomed—especially from the developing countries. It is a truism that a vibrant scientific effort thrives on change. The ongoing revolution in the biological sciences, computing technology, and near instantaneous global communications offers tremendous opportunities for new partnerships to help the poor. The CGIAR must seize these opportunities to advance its mandate. The year 2000 was one of review and preparation. In 2001, it is time to act.

Thirty years ago, international interest in harnessing agricultural science and technology to combat famine and promote agricultural development was at an unprecedented high. The effectiveness of this strategy is widely acknowledged, as these examples show:

- More than 300 CGIAR-developed varieties of wheat and rice, and more than 200 varieties of maize, are being grown by farmers in developing countries.
- CGIAR holds in public trust, under oversight of the Food and Agriculture Organization of the United Nations (FAO), the world’s largest collection of plant genetic resources (comprising over 600,000 accessions of more than 3,000 crop, forage, and pasture species).
- CGIAR works with developing countries in strengthening national agricultural research capacities. More than 75,000 scientists and technical personnel have already received training at the Centers.

Despite the progress made, however, new challenges remain.

One-fifth of the world’s population lives in absolute poverty, on less than US\$1 a day, and almost half the world’s population lives on less than US\$2 a day. Some 826 million people do not have enough to eat. In addition, numerous other challenges lie heavily on the development agenda. They include the “hidden hunger” of malnutrition, water scarcity, land degradation, loss of biodiversity, human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS), and other pressures. These challenges will grow more complex as the world’s population increases

by an estimated 2 billion people—most of them in developing countries—over the next 25 years.

The challenge to agriculture inherent in these developments is formidable. Agriculture alone cannot solve all development problems, but agriculture and its sustaining force, agricultural research, are essential elements of any realistic effort to resolve the major development issues that lie at the heart of sustainable development—including food security, nutritional deficiency, climate change, and water and land management.

THEMES FOR CHANGE

Several themes are expected to underpin change in the CGIAR.

First, challenge-oriented research: The impact of CGIAR research could be substantially elevated if the current research agenda were augmented by a strategic approach in which the Centers and their partners collaborate to achieve verifiable, targeted outputs in clearly defined strategic research areas. Such a strategic research agenda, defined in consultation with other stakeholders, could mobilize agricultural science to respond to major challenges that are at the heart of global development concerns. Each program would consist of building blocks of projects that together respond to a major development challenge—for instance, the looming water crisis and its impact on smallholder agriculture.

Second, operational strength: The Centers will be strengthened by expanding present strategic alliances, both among themselves and with non-CGIAR institutions. National agricultural research systems (NARS) must continue to be the cornerstone of any framework of partnerships and alliances. Civil society institutions, the private sector, and university research institutes will also be more widely engaged. The common needs of the Centers are currently met through ad hoc arrangements, or not met at all. A common services unit could increase cohesion and improve efficiency.

Third, nimble decisionmaking and governance: The CGIAR embodies elements of a new age of international institutions. Critical elements of such institutions are streamlined decisionmaking; deliberations in a “virtual” mode wherever possible; minimum use of large meetings, committees, and so on; and the ability to mobilize, disseminate, and use knowledge to shape policy, technical, and scientific agendas. Knowledge-based institutions are going to be the winners in the new age, and the CGIAR, a knowledge-based institution, must exploit its inherent and potential strengths.

Fourth, stable long-term finance: To be effective, the CGIAR needs a strategy—based on effectiveness, accountability, and output—for stable and replenishable financing. One implication of the challenge-based research agenda is that, over time, funding for the CGIAR would be more programmatic than institutional. This could stabilize funding through multiyear arrangements. The possibility of attracting support from nontraditional donors, including donors from the private sector, is also being explored.

THE SPECIAL IMPACT OF CLIMATE CHANGE ON THE CGIAR RESEARCH AGENDA

The theme of this annual report, *The Challenge of Climate Change: Poor Farmers at Risk*, is fundamental to the CGIAR’s goal of addressing the needs of small farmers in developing countries through agricultural research. Mobilizing science, developing adaptation and mitigation strategies, and targeting the ecosystems most vulnerable to climate variability will remain the primary objectives of CGIAR efforts, both now and in the future.

The most recent assessment of climate change by the world’s leading scientists (assembled in the Intergovernmental Panel on Climate Change of the United Nations) concludes that the earth’s average surface temperature could increase by as much as 5.8 degrees Celsius (10.4 degrees Fahrenheit) by the end of the current century. This is significantly higher than earlier estimates.

How should we respond? The CGIAR is concerned with the reality that agriculture accounts for a significant portion of the total emissions of greenhouse gases. We need to conduct research to develop technologies that not only help to reduce poverty and promote the sustainable use of natural resources, but that also mitigate the impact of agriculture on climate. This is a particular challenge to developing countries as they confront climate change and may not have the scientific and institutional capacities to undertake the required research.

So what does all this mean to the small farmer, the primary client of the CGIAR? A warming world will surely impact yields of staple crops, increase the incidence of pest attacks, and exacerbate drought, all with profound effects on the well-being of small farmers in developing countries. The CGIAR and its partners remain committed to addressing these issues by mobilizing the best of science for poor farmers at risk.