



Consultative Group on International Agricultural Research (CGIAR)

**Mobilizing Science for Growth and Sustainable
Development:
*The Power of Partnership***

Statement at
World Summit on Sustainable Development (WSSD)

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Despite intensive efforts and some successes, widespread poverty, chronic hunger, extensive malnutrition, unfair markets, and pervasive environmental degradation have combined to make the goal of sustainable development appear elusive. At the dawn of a new century, the human family is facing daunting development challenges:

- 1.2 billion people live on the equivalent of less than \$1/day, and poverty is concentrated in rural areas;
- More than 800 million people, mostly women and children, go to bed hungry every day; paradoxically, rural areas where food is grown are the epicenters of hunger;
- Malnutrition stalks children and stunts their growth, an estimated 17 million children under five die each year with malnourishment contributing to at least one-third of these deaths;
- Earth's ecosystems are under dire stress; agricultural activities have transformed between one-third to one-half of the earth's land surface, parching aquifers, polluting waters, reducing habitats and biodiversity and smoke plumes are enveloping areas of sub-continental dimensions;
- Biodiversity is being lost at unprecedented rates; 25 locations around the world, occupying only 1.4 per cent of the world's earth, contain more than 60 per cent of the earth's plant and animal species it is such areas that must be protected, and
- Over the next 30-40 years, food demand is expected to double in developing countries where poor people spend a disproportionately large portion of their income purchasing food and are least able to afford it.

Sustainable agriculture holds the key to meeting these daunting economic, social and environmental challenges. Agriculture and the environment are closely linked as agricultural activities affect most of the world's natural resources such as land, fresh water, and biodiversity. Growth in the agricultural sector reduces poverty, feeds the world's growing population and protects the planet's ecosystems. Agricultural science and public goods research must be mobilized to meet the challenges outlined above.

The case for focusing on agriculture as a pathway to achieving sustainable development is strong.

Three of every four poor people in the developing world—900 million in all—live in rural areas and depend directly or indirectly on agriculture for their livelihoods. Agriculture (encompassing crops, livestock, fisheries, and forestry) is the single most important sector in the economies of most low-income countries, accounting for one-fourth to one-half of gross domestic product (GDP) and the bulk of export earnings. Poor people's links to the land are critical for the sustainability of communities, pastures, forests and other natural resources. Therefore, a focus on agriculture and rural development must be on the front lines of any successful assault on poverty and environmental degradation.

CGIAR recognizes that at its core, sustainable development is about ensuring the well-being of people and the ecosystems on which all life depends. A

recent study shows that the challenge of halving the proportion of people living on less than \$1 a day (from 29 to 14.5 percent of all people in low and middle-income countries) requires 3.6 percent growth in per capita incomes, nearly twice the rate achieved over the past decade. While growth is a precondition for sustainable development, for such growth to be sustainable it must be economically viable, environmentally responsible, and socially acceptable. The evidence is incontrovertible: the war on poverty and environmental degradation must first be fought and won in rural areas.

There are many examples which show that countries with dynamic, growth-oriented agricultural sectors have been most successful in breaking the nexus of poverty, hunger and environmental degradation. This evidence is critically important for today's developing countries which have a large portion of their economies linked to agriculture and agribusiness.

Science and technology have been important and strategic elements in responding to the multifaceted challenges outlined above. The generation of global, specialized agricultural knowledge that has created new agricultural information, products and technologies specifically adapted to the crops, ecologies, and development needs of poor farmers is needed more than ever today. In the next decades, we should also see agriculture's interface increasing with human health and in the provision of environmental services. Undoubtedly, there has been and will continue to be a special role for the innovators and providers of global public goods, freely available to all. Their efforts harness the best of global knowledge for local impact. These efforts must continue.

Strategic alliances between national agricultural research and development programs, farmers, civil society, advanced research institutions and CGIAR-supported research centers have achieved major successes with positive local impacts that are congruent with the goals of Agenda 21. Let me highlight a few:

- Afghanistan's agriculture is being rebuilt. It is the most important sector of the economy. War, civil strife, and drought have depleted food production capabilities. In partnership with others, the largest seed supply effort in Afghanistan has been launched. Restoring growth in the agricultural sector is essential for sustainable development and lasting peace.
- NERICA, the New Rices for Africa, combine the ruggedness of local African rice species (*Oryza glaberrima*) with the high productivity traits of Asian rice (*Oryza sativa*) that were the mainstay of the Green Revolution. This effort is transforming agriculture in the humid West Africa region where rice imports top 3.5 million tons; in Guinea alone, NERICAs are planted on 90,000 ha saving \$13 million in rice import bills;
- "Quality Protein Maize" (QPM) containing twice the amount of lysine and tryptophan compared to regular maize has been developed. Lysine and tryptophan are amino acids essential for increasing the quality of food. Currently, QPM is being planted on one million hectares in 20 countries, boosting food, nutrition and income security;
- Integrated aquaculture/agriculture techniques are boosting farm incomes and productivity – farms using IAA techniques produce 1.3 to 1.6 tons of fish

Developing countries need to be supported in their efforts to develop their scientific and technological capacities, create new age institutions, networking in new, broad-based public and private sector alliances that must adequately and fairly address the issues of intellectual property rights. National and international support must be given to the development of human resources necessary to harness the potential of the new institutional arrangements. We are delighted that CEOs of major private sector agricultural institutions, both North and South, have signed a statement of corporate support for strengthening cooperation between the private and public sectors to promote agricultural research and agricultural development as catalysts of growth and sustainable development. It is a welcome affirmation of the critical importance of public-private partnerships.

Equally important is to look at security in a broader definition that should include 'market security.' Agricultural subsidies in industrialized countries amount to \$350 billion every year. This is enormously wasteful and prevents the developing countries from gaining entry for their agriculture-related exports. Our collective quest for achieving the Millennium Development Goals, including halving the number of hungry by 2015, will fail unless we address these shortcomings of the international trade system and promote the concept of market security. Fair access to fair markets is of critical importance.

The International Agricultural Research Centers (the Future Harvest Centers) supported by the CGIAR, its co-sponsors—FAO, IFAD, UNDP and The World Bank—and their partners in South and North are not overwhelmed by the severity of these multifaceted challenges. The Centers, Members, and civil society organizations are working hard to expand the endless frontier of science, generating global knowledge for local impact. Our efforts have won international recognition: CGIAR researchers have won the World Food Prize for the past three years.

Sustainable agriculture is a central pillar of growth and sustainable development. For more than 30 years, the CGIAR has demonstrated how international research, anchored in a public goods orientation, can be a key driving force behind sustainable agriculture, creating new knowledge that can help accelerate our efforts for achieving a sustainable and prosperous world. We are pleased that the CGIAR is being cited as an example of international development cooperation at its best, and that similar consultative groups are being explored for other sectors. We see this as an endorsement of the CGIAR model which has been effective in mobilizing science in the service of poor farmers of developing countries.

The Johannesburg Summit offers a genuine opportunity to increase awareness of and commitment to solving some of the most pressing issues of our time. Wise management of our natural resources and protection of the global environment are essential to achieving sustainable development—and thus alleviating poverty and hunger, and protecting the ecological base on which future food production depends. We commit ourselves to implementation and action.