

AGRICULTURAL R&D: INVESTING IN AFRICA'S FUTURE Analyzing Trends, Challenges, and Opportunities

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HOW TO COUNTERACT DECADES OF UNDERINVESTMENT IN AFRICAN AGRICULTURAL R&D: Perspectives from Donor Organizations

Panel discussion with Nikita Eriksen-Hamel, CIDA/GDPRD; David Nielson, World Bank; Greg Traxler, BMGF; John McMurdy, USAID, and John Lynam (Chair)

Nikita Eriksen-Hamel of the Canadian International Development Agency (CIDA) is also a board member of the Global Donor Platform for Rural Development (GDPRD). GDPRD is an informal network of donors that has identified agricultural research and development (R&D) as a priority for its work in 2011–12. Consensus exists among donors that their activities in agricultural R&D are fragmented and that significant benefit can result from their working more closely together. GDPRD has initiated a donor-level working group to capitalize on opportunities for dialogue, knowledge sharing, harmonizing approaches, and determining best practices and lessons learned among donors. GDPRD's working group is endeavoring to contribute to the strategic element of the Global Conference on Agricultural Research for Development (GCARD) Roadmap for creating effective linkages between agricultural research and agricultural development.

The challenge of improving agricultural R&D is not just an issue of increasing funding; the quality of funding also matters. Donors need a more holistic and systematic approach to supporting agricultural R&D, which includes better targeting of beneficiaries and geographical areas, prioritizing research areas, identifying and addressing specific gaps, and supporting capacities of institutions.

In the past, CIDA's funding for agricultural research focused mostly on the Consultative Group on International Agricultural Research (CGIAR), but more recently CIDA has begun to focus on its investments at regional and national levels, for example, for regional organizations such as the Forum for Agricultural Research in Africa (FARA), the Association of Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), and the West and Central African Council for Agricultural Research and Development (CORAF/WE CARD). Increasingly, CIDA's agricultural research funding is allocated through a more systematic approach, including indirect contributions to field-level R&D activities by civil society organizations and other development partners. Support also includes bilateral agricultural development projects with small research components. Finally, support to extension, advisory services, and training constitute an increasing share of CIDA's portfolio of activities for development-related agricultural research. Other fundamental issues to improving agricultural research

investments include an improved understanding of the geographic location and coverage of investments by other donors—a task that improved mapping and knowledge sharing can improve.

Demonstrating the impact of research is critically important. Taxpayers are asking for greater accountability and better documentation of results from investments in overseas development assistance. A common challenge for many donors is advocating the increase or even maintenance of levels of investments in agricultural research. This involves demonstrating the value for money of these investments because the competition for more resources from within a donor organization will become increasingly difficult. For example, it is easier to demonstrate how many lives are saved from investments made in health or nutrition, but more difficult to explain the impact of agricultural research investments. Greater use of ex ante analysis is needed to sell the message that investments in agricultural R&D achieve results. Another important factor is to better understand the political motivation of senior management and politicians. An important strategy for improving the perception of investments in agricultural research is to embed agricultural R&D into the broader development agenda.

David Nielson from the World Bank stated that he is not as pessimistic as some of the other conference participants about the potential for increases in funding levels for agricultural R&D. In recent years, the climate has become relatively positive in terms of the availability of funding, definitely from the World Bank perspective. The portfolio for agricultural research within the African Agriculture and Development group has risen from US\$0.5 to 1 billion, and remained there for the past three years. Close to one-third of the agricultural budget relates to agricultural R&D. And although the World Bank's own internal budgets for salaries and other operating costs have weakened, its external budget has continued to increase. The commitment to agriculture and agricultural research from bilateral donors is gradually growing, and new donors are stepping up as well. Finally, development partners have shown strong commitment to supporting African-owned plans, such as the Comprehensive Africa Agriculture Development Programme (CAADP). In the beginning there was a lot of skepticism for Africa to take on this hugely ambitious program with its own resources and people, but this is gradually changing. Within the World Bank, CAADP's investment plans are taken seriously, and World Bank investments in Africa will be built around them. So there is a strong support to fund agriculture in Africa, but CAADP will still need to bring strong plans, people, and rationales to the table to prove itself. Development partners do look for credible investment plans of high quality. African governments are investing in these programs themselves, which is a strong signal to development partners and others involved in the CAADP process. Bringing Pillar IV into the investment plans is necessary to secure additional funding for agricultural R&D.

One important area that remains weak is the monitoring and evaluation (M&E) of investments in research programs. Data availability is often spotty, and programs often have an insufficient M&E framework. Donors have become obsessive about M&E these days, especially in terms of measuring short-term results. For example, many World Bank projects get poor ratings because the ex post evaluation indicates the M&E indicators were poorly thought out, and no data were available to support project outcomes. This is a real challenge that needs to be addressed.

Regional approaches are important to address the small-country problem in Africa and limited economies of scale. Agricultural research needs to be rationalized by identifying roles at each level (local, national, regional, global). CAADP is trying to do this, having committed that funding for regional agricultural R&D will increase from US\$25 million in 2005 to US\$500 million annually by 2015. Recent investments have brought this figure to US\$250 million per year currently, and by 2013 it will be up to US\$300 million per year. Also in terms of regional approaches, a closer alignment between the CGIAR and the African programs is being planned under CAADP, which has not happened before. This is a positive direction for which there is a lot of interest at the donor level.

In terms of funding for education by development partners, interest has shifted from primary-level to university-level education. The number of university programs is large, but they are often small and fragmented. Furthermore, the funding of these programs is mostly controlled by Northern institutions. If this can be turned around, these partnerships will have much greater potential. Strengthening agricultural universities will also contribute to scaling up investments in agricultural research, as well as improving its quality and effectiveness. Finally, donors and development partners have a strong commitment to coordination and collaboration. This will lead to better funding and will require less of an investment in time by African leaders and others, but once again this all depends on programs and institutions aligning with CAADP goals. This will be also important for mobilizing funding for agricultural R&D.

Greg Traxler of the Bill and Melinda Gates Foundation (BMGF) returned the discussion to the original question of underinvestment in agricultural R&D, which has been a standing topic for conferences like this one throughout the careers of most participants. There was, however, a golden era during the 1970s and 1980s, and some believe that Africa's agricultural sector is on the brink of an era of unprecedented opportunities. As previously stated, donors do not have all the answers, but they also don't just fling money into an open hand. Donors see themselves as partners and are also looking for ideas on how to become more effective. Some of the papers presented at the conference read as almost criticizing donors for being less than perfect.

BMGF has a fundamental belief in the power of science and technology and the pervasiveness of market failures in the provision of agricultural R&D. Agricultural R&D has received by far the largest allocation of the Foundation's budget since the beginning of the Agricultural Development Initiative in 2006. And the lion's share of those investments has been focused on Sub-Saharan Africa. BMGF is a young, U.S.-based, international philanthropic organization with an investment profile that is, and will continue to be, different from other donor organizations. The focus is mostly on global public goods, with an emphasis on *global*. Research efforts are characterized by scale economies and multi-country spillovers. Given this perspective, the CGIAR centers, partnering with national agricultural research systems, have been our largest single grantee.

The Foundation has found it challenging to invest directly in national research. Its recently completed a new strategy, which includes more direct country granting. Africa's small-country curse doesn't just affect research efficiency, it also affects donors. It is a challenge to the Foundation's capacity to understand the diverse universe of SSA countries so that it can grant intelligently and responsibly. What is first needed is to take a step back to look at the form for donor support for national agricultural research programs. The institutional landscape is becoming increasingly diverse and rich with a growing number of mechanisms available. At the country level there is direct support to national programs, direct country support through competitive funding mechanisms, support to university research, and support for scientific training. Any of these mechanisms face the risk of inducing increased funding volatility. How common are the success stories that counteract the downside of increased volatility that has accompanied those attempts? How robust is the evidence that direct support from donors has been an important element in creating a strong national innovation system? Which of the country modalities have been the most effective? Furthermore, what needs to happen to bring the CAADP process to bear on the level and stability of R&D funding? What is the most effect role for the regional institutions?

One final question is how to get governments to invest more in R&D. There is substantial evidence that agricultural R&D has a high payoff but continues to be underfunded. Who has the leverage to influence governments to invest more? Who makes the investment decision? Who could facilitate this type of advocacy? What can we learn from other parts of the world where countries increased their investment levels?

John McMurdy of the United States Agency for International Development (USAID) introduced the agency's Feed the Future Initiative, which is the primary the U.S. government's vehicle for supporting agricultural research and innovation. Technology and R&D are at the forefront of that initiative, with major investments in climate-resistant cereals, disease- and pest-resistant tropical staples, and intensified production systems. USAID prioritizes its activities looking at the national versus the regional and global levels. At the national level, the focus is very much on CAADP and aims to add value to and support local programs and partners. USAID is a decentralized agency focusing on bilateral programs, broader regional initiatives, and support for global public goods including more upstream agricultural research and the CGIAR Research Programs (CRPs). Coordinating country-level activities with regional and global initiatives is challenging enough, let alone coordinating them with other donors, but Feed the Future has provided a structure for how this can fit together. One example of donor cooperation under Feed the Future is the Cereal Systems Initiative for South Asia, a program jointly funded by BMGF and USAID to intensify the production of rice-, wheat-, and maize-based systems in South Asia. USAID is currently initiating three similar sustainable intensification programs in Africa, in the Sudano-Sahelian region of West Africa, the Ethiopian highlands, and the Maize-based systems in East and Southern Africa. Capacity development is also a high priority in Feed the Future, including a focus on tertiary education, extension services, and institutional capacity. There is also an increased focus on monitoring and evaluation under Feed the Future; however, challenges exist in developing metrics suitable for assessing and tracking research outcomes. The input of the international agricultural research community is welcome.

John Lynam followed with a request that the panelists address the bifurcation of funding and capacity between the so-called Big Eight countries and the rest of Sub-Saharan Africa, and the donor shift in the past decade from national to regional support. These regional initiatives now depend 100 percent on donor funding, whereas national governments have not wanted to invest in them. Is the movement forward toward regional programs that operate competitively through strong national agricultural research institutes and centers of excellence? Will this exacerbate the bifurcation? Is it a problem, and should anything be done about it? Is there a need to build capacity in only a small subset of countries?

At CIDA this shift from national to regional is not apparent. Currently about half the funding goes to the CGIAR, but more is going to national programs than previously. At USAID funding has increased substantially at the bilateral level, and there is also a strong desire to build collaboration between stronger and weaker programs. World Bank funding is also directed almost exclusively to the country level, but this funding is in accordance with regional programs and aims to strengthening the best national programs. Consequently, this funding has regional implications despite being directed nationally. This funding is based on regional priorities and the expectation that each country cannot have a strong program on every research topic.