

Executive Summary for GAT Report¹

What change is needed, why and how?

Many of the world's poor people make a living from the land. Pressure on land, water, fuelwood and genetic resources has increased in the regions which contain the greatest poverty. It is likely to get worse if urgent action is not forthcoming. Compounding these problems, the poorest of the poor tend to live in remote inaccessible rural areas. Agriculture (to mean crops, livestock, fisheries, forestry, fruits, vegetables among others) tends to be only one of several strategies the poor deploy to diversify their livelihood to reduce risks. But this means that effective pro-poor, pro-women and pro-environmental systems for agricultural knowledge, technology generation, systems of delivery and knowledge sharing take place in multiple directions. Such systems are needed *on a large scale* for the development of whole societies and indeed for more inclusive and sustainable global development, but the ability to replicate or scale up is constrained by the heterogeneity of conditions.

These changes must occur starting at the local, national and regional levels with external actors playing a facilitative role. External efforts can neither substitute for nor replace the complex and routine strategizing, planning, implementing, problem-solving and learning needed on multiple fronts which only national institutions and actors can and must do. They also benefit from institutional memory which intermittent external actors lack. Thus local, national and regional entities can and must take the lead with the first and successive planning of Global Conferences on Agricultural Research for Development (GCARD) meant to facilitate their processes.

Important insights for this paper of the Global Authors' Team (GAT) came from a major global consultation process undertaken over nearly a year in all major developing regions of the world led by regional associations for GCARD. Regional Research Fora APAARI (Asia-Pacific), FORAGRO (Latin America and Caribbean), FARA (Sub-Saharan Africa), AARINENA (W. Asia and N. Africa), CACAARI (Central Asia and Caucasus), EFARD (Europe), and China have each established networks and developed priorities that emerge from and focus on concerns within regions. In

¹ This paper by the Global Authors' Team (GAT) has been commissioned by the Global Forum on International Agricultural Research (GFAR) as an input into the Global Conference on Agricultural Research for Development (GCARD) being held in, Montpellier, France between March 28th and 31st 2010. It builds on the consultations conducted over nearly a year as part of the GCARD process, in Latin America and the Caribbean, Asia and the Pacific, the North Africa and West Asia, Sub-Saharan Africa, Central Asia and the Caucuses, Western Europe, with additional contributions from China and other Emerging Economies. Some 2000 stakeholders of agricultural research from different sectors participated in these consultations. The paper also draws on the team's analysis of the state of the world agricultural research undertaken by or for the benefit of developing countries and the rapidly changing international context in which the research is conducted. The Team reviewed nearly 300 recent and historical documents, drew on their own collective experience of nearly 35 years each in different parts of the world as well as benefiting from perspectives and comments on the earlier draft from the authors of Regional Papers, leaders of international, regional and national research systems, colleagues in IFAD, FAO, GFAR, the CGIAR, the World Bank, IDS and many others listed in the annex. The team will reflect the discussions at GCARD and the paper will be finalized by the end of April 2010. The views expressed in the paper are those of the authors and do not necessarily reflect the views of the GFAR Steering Committee, its constituents or the donors who have financed GFAR and the GCARD process. Comments are welcome from all readers.

addition, there is also a great diversity of associations related to agricultural research as well as strong discipline or subject-based networks.

More inclusive than ever before, but understandably by no means perfect, the regional consultations involved some 2000 stakeholders. Products from these consultations and comments on an earlier GAT draft paper from some of the regional *agricultural* research associations note a number of successes in regional cooperation in research among themselves and in partnership with the CGIAR and others but stress that the developing world's agricultural research systems are currently insufficiently developmental-oriented. Research organizations have generally not been good at integrating the needs and priorities of the poor in the work of researchers. Farmers have difficulty accessing new technologies and innovations and many lack organized networks. There is a disconnect between research and extension systems as well as between researchers and policy makers. Many research systems are under-resourced, and even those that are well-endowed tend not to be sufficiently connected with the broader processes of development. These communications also stress that a change is needed in the incentive structures in the national and international research community to deliver impacts for the poor. They emphasize that systems need to be more accountable to their beneficiaries rather than focus on the outcomes of scientific achievements alone. They also note that there are few incentives for national and international research systems to work more closely with policy makers or with farmers' organizations, or to invest in coordination, knowledge management and communication. Their constituent institutions often have insufficient connection with, and accountability to, their desired beneficiaries. The results of these consultations, if they are widely subscribed to by all regions, have served as an important *partial* diagnostic needed to transform the currently fragmented agricultural research system for development into a more cohesive one (see Box A).

Agricultural Research Systems must also become more agile and adaptable in responding to the fast changing external environment. In an age of globalization, the poorest are hit the hardest by external shocks as the food and the financial crisis of 2007 and 2008 have well-established. Integration of the global markets across sectors has occurred at a speed unanticipated by most. Climate change is projected to most affect the regions with the most poverty. Energy, climate change and market integration are likely to be important drivers of the future agendas for the poor, though others may add to this list. At the same time, cell phones and other technologies are making a revolution in the ability of the poor to access information transforming the ways in which they are or can be reached.

Going forward there are additional obstacles as well as opportunities that countries and regions will need to take into account. These are addressed in the main body of this report, and include:

- The poorest people tend to be women and children, who have even less voice than poor men but again through decentralization rapid changes are taking place in representing their interests.
- Our understanding of the microeconomics of households living in poverty is however weak at best and fragmented by sectors (e.g. agriculture, health, forestry) at most. It needs to be strengthened.
- National and regional organizations are coming into their own and yet have several weaknesses of their own including inadequate representation of women, civil society, the private sector and the environmental groups. They focus mainly on crops. They will

need substantial strengthening to improve priorities and resolve differences on behalf of all stakeholders.

- Gender concerns are not always on the forefront of agricultural research systems in all developing regions but are strong in some developing countries and in the donor community at large.
- Civil society organizations are highly-developed in some parts of the developing world, and already have shown they can have substantial impacts on agricultural and rural policies and development in important ways. But these voices are still nascent in many part of the developing world.
- The lack of effective extension systems hinders the effectiveness of agricultural development that helps the poor and benefits the environment.
- Neither developing countries nor donors have kept their promises to meet targets on allocations of national budgets or of aid amounts to food and agriculture. On the other hand there are many examples of misallocation of funds to areas of activity with limited if any benefits to the poor. Overall official aid as well as its share to agriculture and infrastructure has been declining. In some regions of the world, net aid flows are already negative and even in those regions with the largest number of poor overall aid and shares to agriculture and infrastructure have declined.
- More aid goes to emergencies than for long-term agricultural or rural development.
- Political obstacles to cooperation *in all parts of the world* are vital because they entail vested interests and competition for scarce resources, whether for energy, water, finances or institutional reforms.
- Resistance to policy and institutional reforms tends to be great even in the face of a fast changing reality which calls for change.
- And yet if TAR4D focused only on poverty reduction it will cover only subsectors of two parts of the developing world where poverty is concentrated. The focus on poverty is necessary and urgent but not sufficient either for a GCARD or for achieving impacts on reducing poverty. It will systematically overlook the opportunities to borrow ideas, technologies and approaches from other sectors and other parts of the world.
- Emerging countries are becoming powerhouses.
- Science and technology are advancing at remarkable speed.
- Emerging economies and some developed countries and their regional groupings, e.g. EU, have expressed enthusiasm to mobilize their expertise for global cooperation under a new GCARD umbrella.
- The global and regional *institutional capacities*, including that of GFAR, to harness these tremendous new opportunities remains low at present. They can, though, be built.
- All regions are demanding and must have an opportunity to benefit from these possibilities.

These are no minor threats or obstacles but also huge opportunities. They offer all the reasons why significant steps need to be taken now if a true Transformed Global Agricultural Research for Development System is to evolve. Even at best it will take more time to achieve than the changes in the environment require. It means mobilizing, reorienting, strengthening and bringing coherence to a currently fragmented system to help the poor escape poverty until they can effectively participate in the overall agricultural and economic growth processes underway elsewhere in their countries and in the world.

Box A. What Does A Transformed Agricultural Research for Development Mean?

A Transformed Agricultural research for development is one that helps to achieve sustainable food and income security for all agricultural producers and consumers and particularly for the resource poor households, whether they are in rural or urban areas. *Sustainable* agricultural intensification means producing more food and agricultural products from the same overall resources (e.g. land, labor and water) *while reducing the negative environmental impacts and at the same time increasing contributions to natural capital and the flow of environmental services*. Sustainable agricultural systems cannot be defined by silver bullets, i.e. acceptability of any particular technology or practice. There are no standard blueprints.

AR4D is research that:

- Operates on the principles of subsidiarity: activities are best conducted at the level at which there are the responsibilities and accountabilities, and where research results need to be applied;
- Builds its priorities from the bottom-up through socially-inclusive processes involving the poor and the disenfranchised;
- Brings into play a diversity of approaches, technologies and practices, including combinations of traditional knowledge, conventional technologies, agro-ecological methods and modern biotechnology;
- Exploits and integrates participatory approaches with scientific and experimental methods;
- Ensures results-based management effectively integrated with innovative science and development;
- Even at the local level routinely devises methods to assess progress of implementation of processes through systematic independent monitoring and evaluation;
- Maintains its identity and operation separate from development actors though seeks effective partnership strategies and linkages to all other relevant agricultural and rural development investments and policies at all levels;
- AR4D is *not* development but contributes to it through greater sensitivity, active partnerships, vigorous commitment to building the capacity of partners including particularly the beneficiaries and increased accountability for more and better results on all fronts: poverty reduction, productivity growth and environmental sustainability. It makes trade-offs explicit and helps decision-makers choose better options.

Science for Sustainable Intensification

Science focuses on understanding and improving crop and animal genotypes by all methods as well as on agro-ecological management, in addition to improving the capacities of people and their institutions to deliver inputs, manage systems, and distribute and use outputs. There is a need to creatively link farmer's own innovation systems with those from science to build mutual understanding and trust and so better benefit from both. Participatory and interdisciplinary approaches to research on community management of natural resources, that combine advanced science with local adaptation, are needed but will require vigorous quantitative and qualitative methodologies for outcomes to be *replicable at scale*. They will be highly skill-intensive.

At the same time, we need to harness the best of advanced innovation in a range of scientific and social science disciplines, from telecommunications to micro-insurance, molecular biology to meteorology as all can provide valuable tools for agriculture, food and rural development.

Sustainable intensification emphasizes not only technology -related research but also other types of research aimed at triggering policy and institutional changes. It also needs the development of enabling institutional environments for the local and global communities to build on strengths, address weaknesses, exploit opportunities and remove threats to achieving sustainable development.

Therefore TAR4D means producing more and better research aimed at delivering credible facts, ideas, concepts and a menu of options for the benefit of the poor including current and alternative future scenarios, drawing on history, culture and contemporary developments in a wide range of areas, in a form which can help identify values, perceptions, needs, constraints and bottlenecks which all stakeholders either possess, face or can benefit from.

Outputs can help design, monitor and evaluate interventions undertaken by multiplicity of actors in many sectors *at all levels*. It can help to develop appropriate mechanisms, partnerships and innovation pathways that can translate research products into development impacts *at scale*, from the local to global, to improve development outcomes and impacts globally.

Cutting Hunger and Poverty: Pathways from Agricultural Research to Development Impacts

Hunger threatens development in many ways: resulting in caloric and nutrient deficiency, increasing susceptibility to disease, encouraging child labor, withdrawal from schooling particularly of girls, out-migration, destitution, prostitution and conflict.

Where is most hunger and poverty?

South Asia and Africa are the battlegrounds for poverty reduction. Yet poverty reduction should be at the centre stage throughout all publicly-funded agricultural research. Different measures show that between 1 billion to 1.5 billion people still lack basic food security or live in poverty. Regardless of which measure is used almost all (95 to 97%) of the food insecure and poor now live in two regions of the world, Asia and Sub-Saharan Africa, about two-thirds in Asia and a third in Africa. South Asia and Sub-Saharan Africa rank the highest in IFPRI's integrated measure of hunger, child development and child mortality. IFPRI has called the situation 'alarming'.

This situation of poverty is clearly avoidable in the modern world. Prospects for reducing poverty quickly are greater in South Asia than in Africa. South Asia has several advantages which Africa tends to lack. The two large countries, India and Bangladesh, have had sustained and rapid economic growth, substantial scientific and other human and institutional capacities, a diversity among institutions including civil society, private sector and women's organizations, a free and lively press, and a greater density of physical infrastructure and access to markets. Yet massive poverty remains alongside rapid economic growth due to policy and institutional failures, despite a number of successes. Besides, South Asia and particularly India ranks high among developing countries in making substantial increases in the allocation of funds to agricultural research. If there is the willingness to confront tough internal policy and institutional constraints and active partnerships internally with programs that are more successful and externally with regional, emerging, international and advanced countries, then poverty can be substantially reduced in a decade to a decade and a half.

The challenges are far greater in Africa in each of these respects. Africa faces greater biotic and a biotic stresses, has lower human and social capital in the form of a complex network of institutions, particularly in small countries. It has less physical infrastructure and market connectivity but now greater commitment to agriculture than before and therefore needs more help particularly in the expansion of human capital and institutions from the external community. The emerging countries of China, India and Brazil are already partnering and are in a

stronger position to help Africa than Europe or North America because their systems are closer to Africa's. A global umbrella would help them and other large and middle income countries (such as Mexico, Indonesia) as well as private foundations such as the Bill and Melinda Gates, Rockefeller and Syngenta Foundations for greater South-South and North-South cooperation.

Pathways from Agricultural Research to Productivity, Production, Low Food Prices and Reduced Hunger

Agricultural research has been remarkably successful in spreading new technologies among millions of farmers of all sizes in the past half century including particularly small farmers. When and where research has been accompanied by enabling policies, investments and institutions, it has helped triple aggregate world food production; per capita production is up by 30%. Most, but not all, production increases have come on existing lands. Application of knowledge generated by agricultural research has increased employment and incomes for the landless and near landless in many countries while bringing real prices of food down until 2007.

Low prices benefit poor consuming households. Low prices do also help poor rural communities, as many men and women are now near marginal farmers, herders, fisherfolk, or forest-dwellers and depend on the market for food much like urban consumers. They also spend a far larger share of their meagre income on food than do the middle classes. The benefit from farm and non-farm employment created from increased production and productivity. These "backward and forward growth linkages", have regularly proven to be far larger when smallholders or marginal farmers are the focus of development than when interventions focus on the large-scale operators. Clearly these benefits must be extended to the poorest producers and consumers as quickly as possible

Past growth has not done enough to reduce poverty, but even that growth has now stalled, and come at substantial environmental costs with profound implications for the future.

While research is essential, it alone cannot solve the problems of hunger, the plight of poor women and undernourished children, even in partnership with others. Strong political will and complementary enabling policy and institutional conditions are needed for research and service delivery providers to be accountable to the poor. This is well-proven by research on child feeding programs and numerous other small farm production programs and projects in South Asia. Appropriately strengthened national and regional stakeholders together through increased information and accountability measures of the media, the bureaucracy and the legal system are in the best position to address issues of more and better quality expenditures on the poor.

At the same time AR4D cannot afford to overlook considerations of national food security and international competitiveness of agriculture. AR4D is essential to increase supplies, to meet urban and international demand, limit food price increases, and thereby maintain overall political stability where it exists, help secure it where it does not, and strengthen it in many newly democratized countries.

All regional priorities established through the GCARD process have in common calls for research on climate change, food security and management of land, water and natural resources while increasing agricultural productivity. Subsets have highlighted major cereals, forestry, fisheries, access to markets and extension. Overall however given the heterogeneity of the needs,

priorities and constraints identified, beyond, noting that there is considerable scope for convergence, for example, between what the regions need and the CGIAR may offer specific programs of cooperation must clearly be worked out by appropriate entities with responsibilities and accountabilities in the regions, with the CGIAR and other partners.

A global transformation will require recognition of the substantially broader multi-institutional architecture of scientific research and development that must now span and evolve worldwide creating a market place for ideas, technologies and approaches. This includes the role of small and large scale commercial agriculture, value chains and international trade, finance and other global scientific and environmental conditions, and attention to commodity research among other things. It will need to be inclusive of both women and the needs of small farmers and families, as well as of those farmers who are already in the market place. It will require representation of the poor in various foras designed to develop solutions.

The CGIAR Reform

The CGIAR has played a critical role in helping to achieve food security mainly through improved germplasm research, in populous countries in Asia, once dangerously dependent on large amounts of food aid, as well as in much of Latin America and the Middle East. Its success in research on cassava has improved food security for millions poor farmers and consumers in Africa. But for well over a decade now the CGIAR research has suffered from increased share of short-term funding tied to specific agendas, overlapping mandates and a lack of focus. The impacts of the CGIAR have slowed. It comprises 4% to 5% of the total public expenditure on agricultural research worldwide and faces competing demands on its resources. Since the reforms, the CGIAR's new business model has been designed to address food security at large scale and in a more outcome-focused way, with a clearer focus on people, results, and efficiency. The new emphasis calls for collective action through integrated thematic research, focused on distinct development objectives. It aims to make use of the value of international research alongside national programs and commitments to deliver research outputs on a scale and value sufficient to achieve impacts on poverty among millions of smallholder farmers and poor urban consumers. A new Fund is expected to harmonize donor contributions to support the CGIAR's 15 research centers.

The total global investment in public sector agricultural research is nearly 20 times larger than the CGIAR's, more than half of it in the developing regions. The rest is in advanced countries. The CGIAR and the developing countries need to work more proactively with the remaining 95% to 96% to achieve large scale global impacts. Building on past successful partnerships shedding ones which are not working, the new reformed CGIAR can work systematically, building on the past. At the same time there are numerous examples of developing countries and their regional fora establishing effective research and technology partnerships.

International research has distinct roles and values and large countries have very different roles and capacities compared to small ones. These need to be that need to be harnessed better in support of national development, using its considerable assets which include a record of achievement and credibility, a vast collection of germplasm, its coordinating role, functional brokerage between advanced science and its application for wider benefit of global good. It is clear that in the areas of natural resource management, policy and social science research the CGIAR must actively encourage developing countries to take the lead, decentralize research to

systems in developing countries that are capable and committed to producing local and regional public goods research in joint partnership with advanced country research institutions in the public and the private sector while monitoring and holding each other accountable for results. **The CGIAR's Strategic Results Framework notes that public agricultural R and D for developing countries would need to increase from the current \$5.1 billion to \$16.4 billion by 2025 – of which the \$1.6 billion would need to be the CGIAR element to achieve its projected increases in production. This report contends that it is the minimum amount necessary. Developing countries' agricultural research responsibilities extend well beyond the CGIAR's mandated activities.** Harnessing resources (along with private sector resources) for worldwide poverty reduction should be a major focus for the first and of subsequent GCARDs.

The CGIAR's new research agenda is still at a formative stage to be focused on limited number of unifying themes that appear in broad alignment with those identified from each region, namely (i) Agricultural systems for the poor and vulnerable, (ii) Enabling agricultural incomes for the poor, (iii) Optimizing productivity of global food security crops, (iv) Agriculture, nutrition and health, (v) Water, soils and ecosystems, (vi) Forests and trees, (vii) Climate change and agriculture (viii) Agricultural biodiversity. The CGIAR also proposes creating two platforms as catalysts for the wider development of research and actions on Gender, and Capacity-Strengthening.

These need to build on the strengths and weaknesses of the past partnerships, including following the principles of increased inclusivity and good practice of shared objectives, finances, a governance structure, clear roles, responsibilities and accountabilities and rigorous and appropriate monitoring and evaluation of results. Much of the research on gender should take place in and by developing countries as a way of fostering greater commitment to the issues of gender inclusiveness.

Currently many countries are experiencing downward pressure on economies. Nevertheless **this calls for increased investments in agricultural research, extension and development.** Barring China, Brazil and India, most countries have neglected to invest in their agriculture and even those systems acknowledge that they face challenges in addressing issues of the environment and poverty. Given the time lags of 7 to 20 years from research to impact in the field, **increased funding to agricultural research to 1 % or 1.5 % of agricultural GDP is certain to be a recommendation for GCARD 1 and should be systematically monitored and outcomes disseminated.**

A very substantial amount of this investment must go into human capacity building and to modernize research management and incentive systems for researchers to develop pro poor programs as many developing countries that national and regional organizations believe they can to increase their relevance and accountability to the poor clients which regional research stakeholders have stressed they need.

Many can learn from the experiences of emerging economies and OECD countries and GFAR should have an active role in fostering such cross learning and good practice.

It is impractical to set investment targets for overall agricultural development at GCARD 1; Sub-Saharan African countries have adopted the target levels of investment but have not met them. In other cases investment has been misallocated and requirements vary depending on the

resource base and most governments have not followed through on their promises. Yet there is need for massive reforms and investments to improve delivery conditions and systems including the need for secure land rights, seed and credit, revival of extension systems, engagement of CSOs, development of policy capacity, promotion of rural infrastructure and information technology, and establishment of appropriate financial institutions and increased attention in measuring and tracking performance and accountability. All require attention and investments estimated by FAO to be in the billions of dollars.

Avoiding paralysis by further analysis is not an option. Moving to concrete actions with each individual and entity taking responsibility is the only option. The Global Conference on Agricultural Research for Development 2010, the first in a series of biennial global conferences, is designed *to initiate* and report progress on this transformation. Successive cycles of collective action will determine if rapid cross-learning and progress is taking place and if more transparent mutual accountability among all stakeholders is developing.

In summary, the Global Author Team of GFAR to the GCARD **acknowledges** the substantial contribution of agricultural research leaders and institutions to development, **recognizes** their role in the removal of persistent food poverty of many rural and urban people across both developing and developed countries, **notes** the unpredictable global economic environment resulting from rapid global integration which most affects the poor, **accepts** the emergent and uncertain challenges of climate change and related pressures on environmental services, **argues** that agricultural research for development must be transformed, **calls** for more financial investment to foster rapid and broad-based innovation, and **sets out** a road map for the immediate future.

The Road Map

To transform the agricultural research for development system into a cohesive whole, urgent action is now needed on a variety of fronts.

Who Should Make the Commitment?

This roadmap sets out what is required in the form of collective action among stakeholders over the coming years. Its success will depend on individuals and institutions each to playing their part in delivering shared development goals.

The stakeholders who should commit are:

- National policy makers of developed and developing countries;
- All relevant stakeholders at the local, sub-national, national, regional and international levels engaged in and/or supporting agricultural research knowledge and information systems including the CGIAR, educational, research and extension institutions, and farmers organizations;
- Donors and other development assistance agencies, including bilateral and multilateral institutions and development banks;
- Private sector, including small, medium and large agricultural input companies, food companies, agricultural banks, insurers and the agribusiness sector;

- Civil society organizations at all levels, from sub-national to national and international;
- Representatives of the poor and women;
- Stewards of the environment.

Towards a Well-Functioning AR4D System

The resulting reforms, assuming that they have a broad ownership of the stakeholders in the countries and regions where action is most needed, could have major positive impacts on the NARS' future capacities, incentives, and performance. The transformation should start with the implementation of priorities each region has set out for itself assuming they are broadly shared by stakeholders. Based on lessons learnt through implementation of some high priority programs regional organizations should improve and refine their processes over time. GFAR/GCARD and its constituent members also should agree on some minimum standards for partnerships in strategic areas of collaboration based on some of the principles outlined in chapter 5, defining the *combined* objectives of developing countries, the CGIAR and other partners, their relative comparative advantages, and the principles of subsidiarity, i.e. letting actors at the relevant levels take active responsibility for implementation of programs designed in pursuit of sustainable intensification by the poor, their expected outputs and impacts.

The current timeline for the final approval of the SRF and thematic areas (or mega-programs) and the inputs of the regions in that process clearly needs to be revisited after GCARD 1.

GCARD 1 is the first step in a series of GCARDs in support of the Road Map for a long-term (4 to 6 years) process. It needs to establish clear milestones to achieve alignment in global AR4D.

A well-functioning AR4D system could have the following ten characteristics:

1. Starting with priorities already established through regional consultations and sought to be implemented by Regional Organizations, taking early steps to help facilitate their implementation;
2. Helping to ensure focus on researchable technologies and/or their delivery to meet farmer constraints on technology adoption;
3. Helping to address constraints identified by Regional Organizations, e.g., human resource development, incentives for scientists, accountability and effectiveness of multiple partnerships.
4. Facilitating the rapid generation of innovations in support of the spread of knowledge and technologies to small holders and identification of improvements needed in the delivery of services to involve and reach the poor;
5. Promotes effective use of collective capacities by strengthening key relationships among research, development (extension, seed suppliers, the banking sector) and farmer actors;
6. Actively achieves increased investments in human, institutional and financial resources;
7. Promotes coordinated operational linkages among development actors aimed at monitorable development impacts;
8. Increasing mutual and equal accountability among all stakeholders;
9. Committing to action;
10. Achieving credible monitoring and evaluation and reporting on what has changed.

Role of the Global Forum on Agricultural Research (GFAR) and GCARDs

The Global Forum on Agricultural Research was established to be an open and inclusive platform for all those involved in agricultural research and its role in development. As recognized by the G8, GFAR is well-suited to serve as a platform and apex body. But both GFAR and its regional constituent bodies need to be strengthened, acquiring increased legitimacy through inclusiveness and endorsement by its constituents, financial resources, expertise and credibility based on its and their demonstrated track records. GFAR's governance includes members from developing and developed country institutions (NARS, private sector, civil society, CGIAR, farmers' organizations, bilateral and multi-lateral donors, and international organizations) and has the broad upstream and downstream reach to include institutions that play key operational roles.

With strengthening, together, they can play key roles in i) advocating for agricultural research (and hence agriculture) in development, ii) helping to improve capacity of NARS and SROs to catalyze actions among the necessary stakeholders to collectively transform agricultural research systems for greater development impact, and (iii) providing leadership at the global level.

GCARD 1 provides a unique opportunity to set in motion the process of transforming agricultural research for development (TAR4D). A series of biennial GCARDS over the next several years can become the vehicles for initiating and promoting cycles of learning and change. GCARDS can take on a combination of advocacy, mobilization of finance for investments, and human and institutional capital development at the national, regional and international levels.

A global transformation of research for development cannot be achieved without the commitment to investments and necessary institutional changes. GFAR will need to work through its constituencies and other partners in the international community to strengthen the many existing partnerships by:

- Starting to implement regional priorities identified through regional consultations;
- Helping them to improve their accountability to their constituencies;
- Building the capacity of the NARS and regional organizations to implement their priorities, improve incentives;
- Mobilizing appropriate support for strengthening the national, sub-regional and regional research organizations to help carry out the pro poor, pro women and pro environment agenda;
- developing briefs (documents) for policy makers to highlight the current state of AR4D and the potential contributions of AR4D;
- Working with its constituent regional bodies to reflect the particular regional needs and establish a process to fully introduce AR4D into the agendas of the different political and economic regional bodies (e.g. G8, G20);
- Working with multi-lateral, regional and bilateral organizations and development banks to establish a common strategy for the improvement of the effectiveness of the global AR4D system.
- Lobbying, monitoring and reporting on increased investment commitments by both developing and developed countries including the added capacity for innovation generated in developing countries from the baseline year of 2010.

For this to take place GFAR structure should be strengthened with the appropriate technical capacities. Its constituent regional fora should also undergo an in-depth review so as to assure they can play their strategic and leadership role in terms of taking the global discussion to the regional level and effectively connecting NARS, policy-makers and local stakeholders to the GFAR process as well as the CGIAR reform process and future MPs.

New Ideas and Best Practices

New ideas and best practices are needed. GFAR constituencies should collectively undertake the development of best practices related to the improvement of the architecture of the global system and its component by focusing on the improvement of:

- a) AR4D implementation processes by assuring transparent accountability to stakeholders, including particularly the poor, results-based management, achieving full gender participation, and monitoring and evaluating of implementation efforts;
- b) the global AR4D architecture by effective partnership strategies, mechanisms to increase the spillover effects of multi-country investments and capacities, better harnessing the outcomes of the reformed CGIAR research system towards development impact, and more public-private partnerships (PPPs), and deployment of new products for the benefit of the small-scale and resource-poor;
- c) the content of AR4D by making better use of foresight methodologies, strategic planning that fosters the creation of new knowledge as well as the capacity to seek existing technologies, research priority-setting to focus on reducing the vulnerability of poor people, and ensuring a diversity of approaches that include combinations of traditional knowledge, conventional technologies, agro-ecological methods and modern biotechnology;

Exogenous Factors

The largely exogenous conditions for delivery include the need for secure land rights, revival of extension systems, engagement of CSOs, development of policy capacity, promotion of rural infrastructure and information technology, and establishment of appropriate financial institutions.

Monitoring and Reporting System for an Evolving TAR4D Global System

An effective transformation needs a process with clear reporting and accountability. This should be built on objective data on key indicators that enables (i) keeping track of changes and their results, and (ii) a transparent feedback to all concerned stakeholders about progress on the transformation strategy and its implementation.

GCARD should thus establish a monitoring and reporting system to track commitments and progress towards a more effective global AR4D system. This system should:

- Develop a baseline analysis of the state of the AR4D system, starting with 2010 as the base year and including all partners currently not included in the research and reporting;
- Track improvement in the capacities, incentives and management systems in which national and regional organizations seek reforms;

- Ensure countries are committed to developing the databases for their countries as tools for policy-making.
- Develop a transparent registry of actions, commitments and responsibilities by national and international actors;
- Support a permanent mechanism enabled under GFAR for the development of key indicators on investments and capacities in research, human resource development and institutional innovations in support of food security, poverty reduction and increased environmental sustainability;
- Ensure the wide dissemination of results to those concerned with AR4D at least every two years at successive GCARDs and to policy makers in the G8 and G20.

The Responsibilities of Individual Developing Countries

Developing countries including emerging economies should commit to:

- a) Taking leadership positions at their respective levels;
- b) Enhancing their own policies, institutions and investments in support of achieving better impacts on the poor;
- c) Fostering institutional innovations to transform their national and regional AR4D systems;
- d) Incorporating their strategic needs to support such transformation in strategies;
- e) Adopting an inclusive process involving all relevant stakeholders to develop strategies on what technologies and knowledge need to be generated or mobilized nationally and how to access new technologies and knowledge from external sources;
- f) Strengthening their SROs and ROs as instruments to foster regional cooperation, better use of available resources, and improved scientific infrastructures.

Industrialized Countries, Emerging Economies and Global and Regional Organizations

Industrialized countries, emerging economies and international organizations should commit to:

- a) Adopting explicit commitments to increase investment and human resource development to (i) meet MDGs or nationally-established goals for poverty reduction, food security and environmental sustainability, and ii) ensure that national and international efforts attain the required levels of investment;
- b) Supporting national efforts to build SROs and ROs to complement national efforts, particularly to support smaller countries, so as to achieve the necessary scale to effectively meet research needs and promote international standards and accountability in research management;
- c) Ensuring effective inclusion of research, extension and capacity development in rural development programs funded by governments and donors.

Concluding Comments

Agricultural research and development efforts that engage farmers and build from the bottom-up can release locked-up innovation, become responsive and effective, encourage many different pathways, and result in adequate food for all. Without investments in agricultural and overall economic and social development, research alone would be a blunt instrument in efforts to eradicate poverty and hunger.