GFAR ANNUAL REPORT 2010
The Global Conference on Agricultural Research for Development was the key deliverable for the Global Forum on Agricultural Research (GFAR) in 2010. This report also highlights some of the successful initiatives that GFAR has engaged in throughout 2010 in promoting collaborative research and in working to transform institutions performing agricultural research for development. The report also describes the work of GFAR and its constituent organizations to improve information and communication management, and to catalyse the sharing of knowledge. At all times, these actions have sought to enable access to agricultural knowledge for all.
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Executive Summary

Led by the Global Forum on Agricultural Research (GFAR), in partnership with the CGIAR Consortium of International Agricultural Research Centers, the Global Conference on Agricultural Research for Development (GCARD) is an exciting new development that aims, through mobilizing collective actions across all sectors, to radically reshape the future of agricultural research and innovation. These changes will be essentials if we are to meet the massive challenges that lie ahead in tackling hunger and achieving food security worldwide.

The initiative offers an inclusive process to transform and strengthen agricultural research for development. GFAR’s Annual Report 2010 outlines GCARD’s key objectives, which include helping countries to meet their development goals and harnessing agricultural knowledge and innovation to benefit rural households, especially smallholder farmers.

The case for more and better agricultural research for development (AR4D) is compelling. Over the past 50 years, agricultural research and technology development, coupled with appropriate policies and investments, have fed an additional three billion people. As a result, the proportion of hungry people worldwide has fallen. However, one-sixth of the world’s population remains hungry and almost 1.5 billion people live below the poverty line. A quarter of all children in developing countries are malnourished. Challenges to the task of improving global food security include climate change, the growing rural–urban divide, market volatility, spiralling energy costs, environmental degradation, water scarcity, biodiversity loss, pandemic diseases and increasing population pressure.

The CGIAR estimates that a three-fold increase in investment in AR4D systems could, by 2025, halve the number of poor rural people who are malnourished, increase yields significantly without requiring further increase in water use, and help reduce poverty by 15%. Yet, investment in agricultural research in developing countries remains low, averaging less than 0.5% of agricultural gross domestic product (GDP).

The GCARD process brings together a wide range of AR4D actors through national, regional and international actions and biennial global conferences. The first conference was held in Montpellier, France, on 28–31 March 2010.
For GCARD 2010, GFAR was tasked with determining the current and future needs and priorities of agricultural research. The resulting GCARD process mobilized more than 2000 stakeholders, allowing many who had previously been excluded – particularly farmers themselves – to have their say.

This report explains GCARD’s consultation and pre-conference processes, which used channels ranging from e-consultations to face-to-face meetings, and from blogs to workshops. In the run-up to the first conference, these consultations revealed that smallholder producers in different parts of the world share many common challenges and identified a range of actions that must be taken if AR4D is to be more effective. Among key themes pinpointed for collaborative action are better targeted research, education, knowledge sharing and access, and the conversion of all of these into innovation, livelihoods and enterprise.

The GCARD principles have already become a benchmark for many national, regional and international programmes and investments in AR4D. The GCARD Road Map, drawn up after the first conference, proposes a six-point plan for transforming AR4D, requiring actions from all those involved in the generation, access and use of agricultural knowledge.

Changes in the international agricultural research system have been a major catalyst for wider change. The report summarises the CGIAR reform process and changes made within GFAR itself, in an effort to catalyse the shifts needed for the GCARD road map to lead to real improvements. It also describes the new architecture of AR4D, which places poor farmers and consumers at the centre of the research agenda and development objectives, and desired impacts at the heart of AR4D innovation processes, policies, partnerships and investments. Political will and enabling market conditions will be crucial components of these processes.

The report also describes some of GFAR and its constituencies in 2010 to address a range of issues highlighted by the GCARD, including climate change, agrobiodiversity, attracting young people into agriculture, rural advisory services and improving information and communication management to enable access to agricultural knowledge for all.
1. The Global Forum on Agricultural Research: transforming agricultural research for development

The Global Forum on Agricultural Research, in partnership with the CGIAR Consortium of International Agriculture Research Centers, is the driving force for an exciting new process; the Global Conference on Agricultural Research for Development (GCARD). Collective actions among all stakeholders in agricultural research for development are aiming to radically reshape the future of agricultural research and innovation to meet the enormous challenges that lie ahead in tackling hunger and achieving food security worldwide and creating viable and sustainable rural livelihoods in even the poorest regions of the world.

The 2009 L'Aquila Joint Statement on Global Food Security committed the support of the G8 governments to GFAR’s role in driving the fundamental reform processes underway in agricultural research systems globally and to the value of the reform of key agricultural research for development (AR4D) actors including the CGIAR and FAO. The Global Conference on Agricultural Research for Development (GCARD) provides an inclusive rolling process to transform and strengthen agricultural research for development, to better enable nations to meet their development goals and bring the full power of agricultural knowledge and innovation to bear in benefiting agricultural households, especially the smallholder farmers, towards meeting key Development Goals.
1.1. Why we need a new emphasis on agricultural research for development

Around 70% of the world’s hungry, poor and marginalized people live in rural areas and agriculture is the major source of their livelihoods. Women make up the majority of poor farmers in many areas and in Africa produce most of the household food. Poor smallholder farmers must have access to new knowledge and appropriate technologies if they are to pull themselves out of poverty and escape the drudgery that characterizes much marginal farming. Informed and empowered smallholders also have a central role to play in reversing rural decline and tackling the hunger suffered by nearly 1 billion people globally.

By increasing agricultural productivity, research has played a major role in alleviating hunger, malnutrition and poverty. Further, food and nutritional security underpin economic growth and are crucial for ensuring stable and harmonious societies and meeting the United Nations Millennium Development Goals for rural populations. As such, agricultural research offers one of the highest rates of return as an investment in development.

Over the past 50 years, agricultural research and technology development, coupled with appropriate policies and investments, have fed an additional three billion people. As a result, the proportion of hungry people worldwide has fallen. However, one-sixth of the world’s population remains hungry and almost 1.5 billion people live below the poverty line. A quarter of all children in developing countries are malnourished. The shining lights of the Green Revolution have dimmed and growth in agricultural productivity has declined significantly.
The rural–urban divide has widened, sometimes at the expense of peace and stability. The risks and vulnerability associated with climate change, market volatility, spiralling energy costs, environmental degradation, water scarcity, biodiversity loss, pandemic diseases and increasing population pressure all create further challenges to the future sustainability of agricultural systems and livelihoods of the rural poor.
1.2. What needs to change?

By 2050, the world population will grow to more than 9 billion. By then, the world will need a 70 percent increase in food production globally, and will need to double in developing countries. With land, water and other production resources declining, this increased production must come through sustainable intensification of existing agricultural land. Without effective agricultural research, technology, innovation, extension and knowledge systems, along with equitable access to markets, we will not meet the world’s future food needs nor create viable livelihoods for 500 million smallholder farm households.

The Consultative Group on International Agricultural Research (CGIAR) has estimated that a three-fold increase in national and international investment in AR4D systems could, by 2025, halve the number of rural poor who are malnourished, increase yields significantly without requiring further increase in water usage, and help reduce poverty by 15 percent. Although ambitious, these targets are well within our reach if the required national, regional and global commitments are forthcoming.
Several major bottlenecks constrain the potential value of agricultural innovation, and the impact it has on the lives and livelihoods of the poor. These include global fragmentation and under-resourcing of public innovation, education and advisory processes, and research that is poorly linked to farmers, nongovernmental organizations (NGOs), the private sector and to broader rural development processes.

The Global Forum on Agricultural Research (GFAR) provides a new, open and inclusive approach to agricultural innovation – one that is driven by effective, sustainable development and focused particularly on the needs of resource-poor smallholder producers.
2. The Global Conference on Agricultural Research for Development

2.1. What is the Global Conference on Agricultural Research for Development?

GFAR, in partnership with the CGIAR Consortium of International Agricultural Research Centres, is the driving force for an exciting new process – the Global Conference on Agricultural Research for Development (GCARD). The first GCARD was held in Montpellier, France, on 28–31 March 2010.

More than a simple conference, GCARD is an innovative rolling process of multi-stakeholder consultation and action. It brings together all those who care about agriculture and its role in development, in successive cycles of learning and feedback through national, regional and international actions and biennial global conferences. The conference replaces both the GFAR triennial conferences and the annual general meetings of the CGIAR, and is an important element of the CGIAR’s reform process.

The 2009 L’Aquila Joint Statement on Global Food Security committed the support of the G8 governments to GFAR’s role in driving the fundamental reform processes under way in agricultural research systems globally and to the value of the reform of key AR4D actors including the CGIAR and the Food and Agriculture Organization of the United Nations (FAO). GCARD provides an inclusive process to transform and strengthen AR4D, to better enable nations to meet their development goals and bring the full power of agricultural knowledge and innovation to bear in benefiting agricultural households, especially smallholder farmers.
GCARD 2010 aimed to ensure that:

- agricultural research outputs are accessible and relevant to the poor in developing countries;

- research focuses on the right questions and is driven by the development needs of the resource-poor;

- knowledge generation through scientific research is embedded in development thinking and practice;

- funding systems are aligned between research and development;

- effective innovation pathways are developed among diverse stakeholders;

- international agricultural research systems are effectively integrated with regional and national partners (national agricultural research systems as well as public, private and civil partners) and respond to national and subregional demands to maximize development impact.
In carrying out this major undertaking, GFAR reached out to all stakeholders in AR4D, mobilizing and supporting actions through the six regional fora representing national agricultural research and advisory systems in each region: the Association for Agricultural Research in Near East and North Africa (AARINENA), the Asia Pacific Association of Agricultural Research Institutes (APAARI), the Central Asia and the Caucasus Association of Agricultural Research Institutes (CACAARI), the Forum for Agricultural Research in Africa (FARA), the European Forum for Agricultural Research for Development (EFARD) and the Forum for Agricultural Research in Latin America and the Caribbean (FORAGRO). Alongside the Regional Fora, GFAR works through networks of the farmer organizations, NGOs, the private sector and donor agencies and the Consortium of CGIAR Centres, FAO and the International Fund for Agricultural Development (IFAD).

At GCARD 2010, GFAR was tasked to determine the current and future needs and priorities of agricultural research. The resultant GCARD process mobilized more than 2000 stakeholders, allowing many who had previously been excluded – most importantly the farmers themselves – to have their say.

All stakeholders resolved at the conference that their collective actions in AR4D must radically reshape agricultural research and innovation to meet the enormous challenges that lie ahead in tackling hunger and achieving food security worldwide, and to create viable and sustainable rural livelihoods even in the poorest regions of the world.

“The conference showed that agricultural researchers are mobilized and recognize themselves as a global community.”

Marion Guillou, President of the French National Institute for Agricultural Research, in Nature, 14 April 2010
AARINENA at the Building from Regional Expressions of Demand Session of GCARD addressed highlights emerging from the recent GFAR-supported regional consultations and the issues they raised. It identified key priorities for small holders in regional agricultural development and areas where knowledge can make the most difference, or where new knowledge is most required. The synthesis report addressed the GCARD Process in WANA Region and emphasized thinking beyond the oil-rich Gulf States recognizing the increasing levels of poverty in this region. The report concluded with brief key-messages from the region on priorities and focus, finance for ARD, capacity building, collaboration and partnerships, policy and scaling up. AARINENA co-organized the Mediterranean Exhibition as part of GCARD to illustrate the vital importance of the region as a bridge between Africa and Europe and a crucible of biodiversity. The Exhibition related to food, agricultural and environmental development in the Mediterranean area. AARINENA presented posters related to: Soil and water management; olive good agriculture practices guidelines manual; and livestock.
2.2. The GCARD consultation process

The GCARD consultation process is radically reshaping agricultural innovation and strengthening its role in meeting key Millennium Development Goals. The GCARD consultation and pre-conference processes included:

i) Reviews that summarized regional research and development needs, and which framed questions for regional online consultations (“e-consultations”).

ii) E-consultations held in each region – Asia and the Pacific, Central Asia and the Caucasus, West Asia and North Africa, sub-Saharan Africa, Latin America and the Caribbean – and in Europe. More than 2000 participants contributed, providing a basis for further in-depth discussion.

iii) Face-to-face meetings organized in each region brought together diverse perspectives on priorities for AR4D, working back from desired development impacts to ensure a focus on research and innovation in meeting development goals.

FORAGRO
During the GCARD process, FORAGRO, in alliance with GFAR and with the support of IICA, conducted a revision of regional priorities with extensive participation of the six FORAGRO interest groups and a final consolidation by FORAGRO’s Executive Committee. The position paper presented at GCARD 2010 included seven priority topics for LAC and a proposal for their implementation. FORAGRO representatives later participated in reviewing the GCARD Roadmap, advocating for the need to strengthen regional fora for their full participation in the process.
iv) Consultations around reform of the CGIAR formed an important part of the GCARD process. GFAR stakeholders contributed to a review of global processes and assessments framing the strategic operation of the international agricultural research centres, with a view to ensuring the relevance of international research to national development needs.

vi) Pre-conference workshops, papers and videos were arranged or commissioned by GFAR on key issues in the transformation and strengthening of AR4D. The themes, which framed discussions during GCARD 2010, included:

- farmer and civil society perspectives on the role and value of AR4D;
- information and communications management for AR4D;
- strengthening agricultural advisory services;
- gender issues in agricultural research and strengthening the role of women in agricultural institutions;
- investments and capacities required in agricultural research;
- strengthening public–private partnerships;
- the role of fast-growing economies;
- the role of effective partnership with end users in AR4D.

Social Media

In the GCARD process, the communications staff (Burness Communications and CGIAR and GFAR staff) posted 120 blog entries, resulting and 22 239 total views and active responses as of 1 April 2010. During the conference week, the blog received 3486 visits to the 50 blog posts that were published.
The reports and analyses completed during the lead-up to GCARD 2010 showed that smallholder producers share many common challenges globally. These results aligned closely with CGIAR analyses of international research needs (see The challenges and tasks ahead, below).

GCARD 2010 brought together two cross-linked approaches: collective research and knowledge-sharing actions to address the key conference themes; and transformation and strengthening of agricultural research and innovation systems to quickly and efficiently work towards development goals. The conference brought together more than 800 invited delegates, drawn from all regions and sectors, from farmers to Ministers. Through the generosity of our donors, more than 250 stakeholders from developing countries were able to attend.

The International Federation of Agricultural Producers commended GCARD 2010 for accommodating the largest representation of farmers they had seen at an international meeting of this scale. All in all, the conference drew together consultations and analyses that directly involved more than 2000 stakeholders.
The challenges and tasks ahead

GCARD identified a range of challenges that must be met and actions that must be taken if research-for-development is to be transformed for the better. These include:

- sustainable agricultural intensification through increased productivity and production of major food crops;
- effective natural resources management (land, water, biodiversity);
- diversification of agricultural products and systems: crop, livestock, fisheries, agroforestry;
- developing a systems approach to address livelihoods of resource-poor smallholder farmers, especially women;
- developing resilient agriculture in resource-poor or marginal areas by harnessing new areas of science (e.g. biotechnology, communication and information technology);
- pursuing a comprehensive value-chain approach, including the development of markets, with emphasis on quality and safety for agriculture;
- research on non-agricultural food security, income enhancement and poverty reduction;
- research on vulnerability to climate change and building resilience through adaptation and mitigation;
- policy research on impacts of trade liberalization, market volatility, decentralization of markets and intellectual property rights;
- research on nutritional and environmental health considerations;
- research on the impact of changing economies, urbanization, energy security and population demographics on changing food diets and urban agriculture;
- research on transboundary pandemic and zoonotic diseases;
- changing forms and markets of agricultural production.
The following stood out among the many highlights of GCARD 2010:

- high-level dialogues featuring senior policy-makers, including the heads of two UN agencies, reviewed the key development challenges;
- discussion of and agreement on the research priorities and needs of AR4D stakeholders, and the changes needed in AR4D systems to deliver desired impacts;
- discussion and shaping of the proposed large-scale programmes of the CGIAR;
- possible solutions and ways forward, including the outline of a road map of priority actions to strengthen and bring better value from AR4D;
- recognition of achievements through prizes awarded by the CGIAR to its staff and partners, and a new prize, donated by the Agropolis Foundation in memory of its founder, Louis Malassis.
All GCARD 2010 delegates were adamant that radical change is required if agricultural systems are to meet our future food needs, truly tackle poverty and hunger, and grow the livelihoods of millions of small farmers in productive and environmentally sustainable agricultural systems.

Participants called for collaborative action, recognizing that generating, accessing and using all forms of agricultural knowledge and technologies are essential to improving the lives of farmers who lack resources, yet carry high risks. This requires coherent actions along the entire innovation chain, from conceiving ideas to action in farmers’ fields. As many national systems do not have the necessary resources, GCARD 2010 identified capacity development in all areas, from farmer’s practices and post-harvest value addition to upstream research, as a fundamental requirement.

GCARD 2010’s impact has already been seen in many ways: in institutions recognizing their interdependence in programme development, in agricultural innovation’s direct focus on achieving development impacts, in the newly emerging research programmes of the CGIAR, and in the GCARD principles now becoming established as a benchmark for many national, regional and international programmes and investments in AR4D.

“The Green Revolution has a new avatar: Transformed Agricultural Research for Development (AR4D), and food experts hope it will provide the panacea for hunger.”

UN IRIN, 25 March 2010
Post-conference feedback, analysed independently by the University of Reading, indicated that the event and the consultative processes leading up to GCARD 2010 were extremely successful. The conference received a mean rating of 7.7 out of 10 for its value in providing opportunity for connection with others, 7.6 for its relevance, and 7.0 for its energy and excitement. Participants also said that GCARD 2010 directly increased their individual commitment to reforming and strengthening AR4D (mean score of 6.8 out of 10). The multi-stakeholder mix was strongly welcomed, with almost all (96%) of the participants wanting to see as many or more civil society participants in the next conference.

2.4. The GCARD Road Map

The outcomes of GCARD 2010 have now been refined to create The GCARD road map: transforming agricultural research for development. The road map highlights the urgent changes required in AR4D systems globally to address worldwide goals of reducing hunger and poverty, creating opportunity for income growth while ensuring environmental sustainability, and meeting the needs of resource-poor smallholder producers.
The GCARD Road Map proposes a six-point plan for transforming AR4D around the world, requiring actions from all those involved in the generation, access and use of agricultural knowledge:

1. The need for collective focus on key priorities, as determined and shaped by science and society;

2. The need for true and effective partnership between research and those it serves;

3. Increased investments to meet the huge challenges ahead and ensure the required development returns from AR4D;

4. Greater capacities to generate, share and make use of agricultural knowledge for development change among all actors;

5. Effective linkages that embed research in the wider development context and actions enabling developmental change;

6. Better demonstration and awareness of the development impact and returns from agricultural innovation.
GCARD2010 provided a basis for coherent actions across many issues and sectors. We know what the major challenges are; it is the collective will to address these that has, until now, been lacking. The road map shows that the transformation of AR4D is the responsibility of all those who care about the future of agriculture and its role in development. The map sets out pathways for change that are open to all of us, at all levels. Business as usual is no longer an option.

The policies, principles and practices included in the GCARD road map were further developed through 2010 and into a new GFAR Programme of Work for 2011 and beyond. Building from GCARD 2010, GFAR is now advocating, facilitating, monitoring and sharing initiatives for collective action to enable practical reform, and to strengthen research, education and advisory systems at national, regional and international levels and so increase their impact in development for the poor.
2.5. GCARD’s role in the reform of the CGIAR

CGARD 2010 participants welcomed the CGIAR reform process, which aims to revitalize and strengthen the international agricultural research system in its quest to deliver greater development impact. In recognizing this, the CGIAR is building a new vision and strategic direction, with the aims of increased openness, dynamic partnerships, an outcome-based culture, and clearer accountabilities.

Analyses by the CGIAR and insights gained through GCARD 2010 have integrated regional needs into a results-oriented Strategy and Results Framework for the CGIAR Consortium, which better targets the development needs of the poor. GFAR has helped bring the perspectives of partners directly into the framework’s development. Prior to and during the conference, public discussion on the CGIAR’s new large-scale international research programmes helped to crystallize the themes and develop the partnerships required for impact, in light of national programmes and priorities.

Following GCARD 2010, the CGIAR Consortium has consulted widely with research partners on the development of its new research programmes. The ongoing GCARD process also provides an important means for the CGIAR to link with other organizations sitting at the nexus between research, knowledge access, innovation and the resulting development impacts.
Two major pillars will support the new architecture of AR4D: (i) the development needs and realities of poor farmers and consumers will be placed at the centre of the research agenda; and (ii) development objectives and desired impacts will drive AR4D innovation processes, policies, partnerships and investments. This new architecture must include well-defined impact pathways for the translation of research outputs to development outcomes.

GFAR, by bringing together stakeholders of all forms, is raising the profile and awareness of the value of AR4D, and is mobilizing regional and international collaborative efforts to deliver the changes sought by all. GCARD 2010 marks the start of a new programme for action among all those committed to abolishing hunger. This requires political will along with targeted and focused agricultural research and knowledge systems that are locally driven and focused on impact. It also requires the creation of enabling market conditions that allow smallholder farmers to produce and prosper through the application of knowledge.

The outcomes of GCARD 2010 demand many new roles of the Global Forum mechanism itself. GFAR’s processes, constituencies and ways of working are being revised to ensure coherent and focused programmes that effect the necessary changes at the highest levels. Such programmes will catalyse and stimulate the partnerships and actions needed to follow the GCARD road map towards real change on the ground.
CACAARI is developing the Regional Agricultural Information System of Central Asia and the Caucasus (CAC.RAIS) bringing together national information systems to support ARD and rural development.

For further strengthening of THE CAC.RAIS system a Workshop was organized in July 2010 in Tashkent, Uzbekistan among CACAARI members, representatives of international organizations, agrarian universities, scientific and technical centers, libraries and other institutions.
3. Mobilizing collaborative actions and transformations

3.1. Agriculture and climate change: adaptation and mitigation

In recent years, GFAR (with international partners including the CGIAR, the Global Donor Platform for Rural Development, the International Federation of Agriculture Producers, FAO, IFAD and the Earth System Science Partnership) has been at the forefront of actions to raise awareness of the potential of agricultural systems in mitigating climate change. We have also highlighted the urgent need for crops and livestock adapted to cope with the projected effects of global warming and its impacts on rainfall patterns. In particular, by enabling farmers and NGOs to participate in high-level processes – including at the UN Framework Convention on Climate Change (UNFCCC) meeting and associated Agriculture and Rural Development Day (ARDD) in Cancun, Mexico, in November 2010.

GFAR-supported workshop participants urged negotiators at Cancun to recognize agriculture’s vital role in climate change adaptation and mitigation. The participants strongly endorsed the proposed target of cutting greenhouse gas emissions to avoid a temperature increase of more than 2°C, stressing that reducing greenhouse gas emissions from agriculture is essential for achieving this target.
Across most of the tropics, agriculture will continue to face the enormous challenge of adapting to harsh and unpredictable growing conditions. To meet the climate challenge, substantial additional financing and investment will be needed across the entire rural value chain. New investments must be handled transparently to ensure that adaptation and mitigation are not undermined by reduced support for global food security and rural development. In addition, new investment must be accessible to all stakeholders, including researchers and members of civil society, especially farmers and their associations.

Agriculture and Rural Development Day: a call for action on agriculture and climate change

In 2010 several events provided a glimpse of the future if action on climate change continues to stall. In Pakistan, floods created a humanitarian disaster with an enormous impact on agriculture and food production; in Niger, drought and failed harvests put over half the country’s population of 14 million at risk from famine; and drought in Russia pushed up global food prices.
ARDD 2010, which was co-supported by GFAR, showed how agriculture can contribute to a low-emission future while adapting to climate change and enhancing food and nutrition security. More than 400 policymakers (including ministers and UNFCCC negotiators), farmers, members of civil society and the private sector, and scientists attended. ARDD 2010 recognized that, through greenhouse gas emissions and sequestration, agriculture forms both part of the problem of and solution to climate change. In light of this, there is increasing need for climate-smart agriculture, which brings together both adaptation and mitigation, and contributes to food security.

ARDD 2010 prioritized the following actions:

- scaling up pro-poor adaptation to ensure food security and rural development;
- using climate finance to support land management and agricultural development;
- solutions on the farm for agricultural mitigation, carbon sequestration and adaptation;
- sustainable agricultural intensification and forestry;
- addressing knowledge gaps in agriculture mitigation and adaptation.

Given the scale of these challenges, GFAR will continue to support the strengthening of international research actions on climate change and agriculture, in particular in developing required capacities, helping farmers to better manage risks, and linking research with wider societies and with development needs.
3.2. International actions in agrobiodiversity

2010: The International Year of Biodiversity

GFAR supported a series of regional processes in 2010, developing concerted actions on the sustainable use of agrobiodiversity and contributing to raising public awareness in the International Year of Biodiversity. Agricultural biodiversity contributes directly to better health, nutrition, incomes and livelihoods. Biodiversity’s benefits include direct value as a source of traits for crop and livestock improvement, new income opportunities, and medicinal and cultural uses. It also underpins resilience, stability and sustainability of agricultural systems and their ecosystem services.
In the European/Mediterranean region, GFAR supported Biodiversity Week, held in Rome, Italy, in May 2010 and organized by Bioversity International, FAO and IFAD. Support from GFAR through AARINENA enabled a number of farmers from the North Africa and West Asia region to attend and share their experiences and knowledge with those from Europe. GFAR sponsored a Guardian of Diversity Mediterranean award, presented to Mr Hrou Abouchrif of ADRAR, a Moroccan farmer’s association working to promote social development, protect the environment and fight poverty in the High Atlas Mountains of Morocco. The meeting culminated in a call to action by the agencies involved for investment in smallholder farmers, rural communities, women and young people, and supporting the conservation and use of agricultural biodiversity to fight malnutrition, build more sustainable agriculture and improve incomes. Also highlighted was the significance of biodiversity for the poorest people in the world, and the need for political will and effective policies to help smallholder farmers, as the custodians of biodiversity, to maintain and obtain its value.
Asia and the Pacific

In Asia, GFAR supported a major regional meeting organized through APAARI, together with Bioversity International and the National Department of Agriculture in Korea, which underscored the need for conservation and sustainable use of agricultural biodiversity in the Asia-Pacific region. The meeting provided a valuable opportunity to review and redefine the role and direction of AR4D systems in the conservation and use of agricultural biodiversity in development. The Asia-Pacific region is the centre of diversity of many important crop species and livestock breeds and resource-poor farmers in the region are dependent on agrobiodiversity for their food security and livelihoods. The symposium gave rise to the Suwon Agrobiodiversity Framework: the way forward for managing agrobiodiversity for sustainable agriculture in the Asia-Pacific region. This framework is now being translated into practical action in the conservation and sustainable use of plant genetic resources.
During 2010, with support from GFAR funding, APAARI undertook several important activities for agricultural research for development in the Asia-Pacific region in collaboration with regional NARS and international organizations like FAO and GFAR. The major accomplishments included:

- **International Symposium on Sustainable Agricultural Development and use of Agrobiodiversity in the Asia-Pacific Region** was organized in the Republic of Korea and the Agrobiodiversity Research and Development Framework was adopted.
- **An Expert Consultation Meeting on Post-harvest and Value Addition of Horticultural Produce** was organized in Malaysia.
- **Two Workshops** were organized on (i) ICT/ICM for National Agricultural Research Information Systems in Asia-Pacific Region in Thailand and (ii) Measuring and Analyzing Agricultural R&D Investment and Capacity Trends in South Asia in Thailand.
- **Three Training Courses** were conducted (i) Assisted Reproductive Technologies for Livestock Genetic Improvement in Chinese Taipei, (ii) Edible Mushroom Production for Asian Farmers and Entrepreneurs in Chinese Taipei and (iii) In Vitro and Cryopreservation Techniques for Conservation of Plant Genetic Resources in India.
- **Several important publications** were brought out and widely circulated. These included: (i) A Success Story on Short Duration Mungbean: A New Success in South Asia, (ii) APAARI Communication Strategy 2010-2015, (iii) Proceedings of the Workshop on ICT/ICM for National Agricultural Research Information Systems in the Asia-Pacific Region, (iv) Expert Consultation on Biopesticides and Biofertilizers for Sustainable agriculture-Proceedings, v) APAARI Newsletter (bi-annual), and (vi) APAARI on CD- 2010.
In Africa, a similar process organized through FARA, along with other international partners including Bioversity International, gave rise to the Agricultural Biodiversity Initiative in Africa (ABIA). This initiative was formalized in the FARA General Assembly in Burkina Faso. ABIA aims to identify Africa-wide challenges, pursue high-level agreements and resolutions relating to issues affecting biodiversity, mobilize resources for conservation and use, and develop institutional capacity and research activities in agrobiodiversity conservation in Africa.

**FARA**

The FARA General Assembly and Africa Science week held in Ouagadougou, Burkina Faso from 19th to 24th July 2010 was an opportunity for stakeholders in African agricultural research and development (AR4D) to reflect upon and contextualize the actions that GCARD1 identified as necessary to enhance the impact of AR4D.

The theme of this triennial event was “African agricultural innovation in a changing global environment”. The emphasis on innovation is a recognition of the need for research to be located within a broader framework that encapsulates the adoption of its outputs—a mindset change essential for transformation advocated by GCARD.

One of the issues concerning innovation on which this forum devoted much attention is the strengthening of partnerships among AR4D actors at all levels (national, regional and global) and across value chains. Two major partnership initiatives were formally launched during this event, namely the Africa-Brazil agricultural innovation market place (www.africa-brazil.org) and the Platform for African-European Partnership on AR4D—PAEPARD (http://paepard.org).
Regional collaboration initiatives in Asia and Africa are now being taken forward by the respective Regional Fora. GFAR continues to support these actions and mobilize global linkages with many other organizations, including the International Treaty on Plant Genetic Resources in Food and Agriculture and the international networks and institutions generating and sharing knowledge of agrobiodiversity. Together, we are working to create more coherent and larger-scale benefits through the sustainable use of agrobiodiversity, spanning the extraordinary range of plants, animals and micro-organisms encompassed by agriculture.
3.3. Transforming institutions

Giving youth a voice: Young Professionals in Agricultural Research for Development

GCARD 2010 recognized the challenges of an ageing farming population and of prolonged underinvestment in the promotion of agricultural services as an attractive career for young people. Without institutional renewal, AR4D systems in many countries will struggle to deliver what they must. This challenge was recognized at GCARD 2010.

The Young Professionals in Agricultural Research for Development movement (YPARD; www.ypard.net) was formed by young professionals as a self-managed network to give direct voice to youth concerns, to link and share knowledge among young professionals around the world, and to rejuvenate AR4D systems globally by creating relevant and exciting curricula and career opportunities. YPARD is playing a key role in bringing young people back to agriculture and building the capacities and visibility of those already involved.

YPARD

YPARD and Agropolis organized a young scientists event at GCARD where young scientists from around the world were able to take part in this international event. Following the Road Map beyond the GCARD, YPARD has worked to build up its base, to provide strong youth stakeholder representation in AR4D. It is also working on engaging young people to express their ideas and aspirations to build together an AR4D that is more attractive to our young and future leaders.
In 2011, GFAR agreed to host the YPARD Secretariat in the GFAR Secretariat in Rome and is providing financial and institutional support. With the International Year of the Youth beginning in August 2010, YPARD focused on linking partners active in youth issues. YPARD has now established or strengthened three regional coordination units, hosted in institutions in Africa, Asia, and Latin America and the Caribbean. These units are sourcing funding to help build their capacity and to link with relevant regional institutions and regional fora. Regional YPARD websites were launched by each coordinating unit to target the information needs of young professionals in each region.

For example, YPARD members in Morocco, Libya, Tunisia and Algeria discussed the challenges facing young professionals in AR4D and their funding and career needs. The results were synthesized and presented by the YPARD regional representative at the meeting of ARIMNet, a Mediterranean regional coordinating body of agricultural research organizations, in October 2010. In 2010 YPARD also consolidated its role in the debate on agricultural curricula in higher education. It plans to launch a study on the “new young professionals” required in today’s AR4D systems, and how universities can improve their curricula to meet the demands of youth and employers in the agricultural sector. This analysis will identify the missing competencies of new graduates, taking into consideration the views, concerns and suggestions of young people themselves.
Global Forum on Rural Advisory Services

GFAR has long recognized the need for strong rural advisory services as a key component of innovation systems. Budget cuts and loan restructuring have seen the collapse of many government extension systems, while market-based alternatives have struggled to fill the vacuum. Meanwhile, the rise of information and communication technologies (ICTs) is rapidly changing the way in which farmers receive and share information, and the role of rural advisers has broadened to include areas such as microfinance and farm budgeting.

In late 2009, in a meeting organized through the Neuchatel Initiative, GFAR supported and mobilized the participation of a range of stakeholders to consider the need and role for a global platform to strengthen the recognition and value of advisory service providers to better meet today’s needs. Priorities included greater coherence, knowledge sharing, and sharing of best practices among advisory service providers.

The meeting also recognized the need for a formal structure to more actively promote advisory service development, and concluded that regional structures are needed to provide direct support to country-level services. The resultant initiative, the Global Forum on Rural Advisory Services (GFRAS; www.g-fras.org) has received financial and technical support from GFAR. This assistance helps GFRAS carry out its core operations in this very important area, which represents a key element of the agricultural innovation systems that GFAR is working to transform and strengthen globally.
In 2010, GFRAS organized the First Intercontinental Meeting of the Global Forum for Rural Advisory Services in Viña del Mar, Chile. The meeting was hosted by the Latin-American Centre for Rural Development and supported by the African Forum for Rural Advisory Services. The meeting’s three objectives were to foster networking and learning among rural advisory stakeholders, to frame and validate a long-term strategy for GFRAS, and to validate a toolkit developed for evaluating extension systems and programs.

The meeting, attended by almost 90 participants from more than 30 countries, also initiated two new extension networks: the Latin America and Caribbean Extension Network, and the Asia-Pacific Islands Rural Advisory Services Network. Subregional networks are now being created in French-speaking West Africa and in Central Asia and the Caucasus.
4. Agricultural knowledge for all

GCARD 2010 highlighted the strong need for greater sharing of agricultural information among countries and regions to more rapidly advance rural development. The pre-GCARD international workshop, organized by GFAR in association with the International Crops Research Institute for the Semi-Arid Tropics/CGIAR, FAO and APAARI, concluded that capacity development in ICT and Information and Communication Management (ICM) on a significant scale is a major priority for AR4D. Progress in this area will allow AR4D researchers and innovators at all levels to make better use of new developments, and to foster large-scale generation and sharing of digital content. Following the conference, GFAR supported a series of activities in 2010 to strengthen the sharing of agricultural knowledge and the use of ICTs:

a) Mobilizing information professionals in support of rural development

GFAR provided input and support to the Congress of the International Association of Agriculture Information Specialists (IAALD), which for the first time brought together information professionals and those operating advisory services in the field. This meeting highlighted the tremendous opportunity provided by new ICTs to make information readily accessible to farmers. However, it also revealed the challenges, including the disconnection between agricultural science and many other sectors (in particular the social sciences), and the critical need to mobilize ICTs into new forms of demand-driven advisory services.
b) Coherence in Information for Agricultural Research for Development

GFAR has re-engineered its information partnership with FAO, the CGIAR, and relevant international and regional bodies under a multi-stakeholder initiative known as Coherence in Information for Agricultural Research for Development (CIARD), which was established in 2008. CIARD is expanding rapidly as a collective movement for more open access, sharing and use of agricultural information. Information and communication activities delivered through GFAR contribute directly to achieving CIARD objectives and cover a range of activities and projects generating new approaches and technical solutions in information management. This collaborative action has already led to:

- application profiles describing organizations, events and projects;
- shared experiences of customization and use of tools for better information management;
- the establishment of new global information services, including AgriFeeds and the CIARD RING (see below);
- greater awareness of the need for increased access and interoperability of data through a series of international meetings, including GCARD 2010 and the IAALD Congress;
- more information sharing in each region through regional workshops;
- common endorsement among information professionals of principles of more open access to agricultural publications;
- an initial set of information pathways produced as guidelines for coherent information management and improved accessibility and sharing of information;
The CIARD RING (Routemap to Information Gateways and Nodes; www.ciardring.net) is one of GFAR’s key contributions to AR4D. The RING comprises a digital registry, which signposts existing information services in AR4D. It indexes and describes these such that they can be more easily cross-linked digitally with other services and so derive new data combinations tailored to meet local needs. This creates tremendous opportunity for diverse forms of data (e.g. geographic information systems, local advisory recommendations, germplasm qualities and market requirements) to be digitally linked to create new demand-driven information products and services that are directly relevant and accessible to smallholder farmers. The CIARD RING, which is maintained by the GFAR Secretariat and was launched in October 2009, already contains links to around 4 million entries.

c) Strengthening regional agricultural information and learning systems

A series of capacity development workshops organized by the regional fora (e.g. the APAARI/GFAR/FAO/Asian Institute of Technology Workshop on ICT/ICM for national agricultural research information systems in the Asia-Pacific region) have been supported financially and technically by GFAR Secretariat over the past year. These workshops have explored key challenges and strengthened capacities of regional and national agricultural information systems. GFAR’s actions in this area:

- encourage increased investment in agricultural information systems;
- improve access to information and the sharing of agricultural knowledge globally;
- link regional information conduits to global providers of agricultural information;
- develop regional platforms for agricultural information sharing and learning;
- develop national capacities in effective information and knowledge sharing;
- increase awareness of new ICT/ICM initiatives among information and communication managers.
The workshops identified a pressing need to strengthen and distribute databases on institutions, experts, projects and project outputs. E-consultations for GCARD 2010 also highlighted concerns about the dearth of communication tools and information management systems in many regions. Support from the GFAR Secretariat has helped the Regional Fora begin to tackle these issues (e.g. restructuring the CACAARI website) but much more remains to be done.

Another significant problem is the extensive duplication of AR4D efforts and too little sharing of information and lack of awareness among policy-makers. Partnerships mobilized through GFAR are addressing the main constraints to efficient information systems, including a lack of investment and human resources, a lack of coherent approaches, and poor uptake of the open access to information resources promoted by the CIARD partners.

d) Sharing knowledge and fostering debate

The redesigned GFAR website (www.egfar.org) includes several web 2.0 tools and social media for information management and sharing (e.g. del.icio.us, Google Calendar, Flickr and YouTube) and for awareness raising (Wikipedia), and added new web 2.0 functionalities to improve the interactivity of the GFAR webspace for all users.

The GFAR Secretariat also shared its experiences at important events such as the Knowledge Share Fair at FAO and the 7th World Congress of Computers in Agriculture. These opportunities allowed GFAR to promote the development of agricultural research information systems at national, regional and global levels.
e) Linking ICTs to community learning and innovation processes

GFAR’s information and communications programme has previously focused on managing and disseminating information to support research management, facilitate communication and support extension personnel. Since 2009, concepts have evolved to incorporate learning processes and help make information more available and relevant to wider capacity needs, including those of local innovation. The integrated “knowledge for all” actions of GFAR emphasize the importance of learning and education, a change now also seen in regional actions such as the FARA Regional Agricultural Information and Learning System.

Discussion of ICTs at GCARD 2010 highlighted the need and value of information systems in delivering the transformations required in AR4D. In this light, GFAR is working to link knowledge into local innovation and change. One example of this, stemming from a 2009 workshop in Kyrgyzstan for the Central Asia and South Caucasus Region (including Turkey), is an FAO technical cooperation programme enabling the development and implementation of agricultural innovation systems.
5. 2010 Financial summary

GFAR is very grateful for the generosity of a range of funding agencies, which have supported GFAR and the GCARD process in 2010. Their contributions are summarized in the figures below.
Total expenditure in 2010 = US$4 069 136

2010 GFAR Activities - expenditure

- Governance Meetings: 1%
- Administration and Support: 6%
- Global Advocacy: 24%
- Mobilizing Actions and Transformations: 11%
- Agricultural Knowledge for All: 7%
- Agricultural Knowledge for All: 51%
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