



GCARD Bulletin

A Summary Report of the 3rd Global Conference on Agricultural Research for Development (GCARD3)
Published by the International Institute for Sustainable Development (IISD)



VOLUME 170, NUMBER 3, MONDAY, 11 APRIL 2016
ONLINE AT [HTTP://WWW.IISD.CA/AGRICULTURE/GCARD3/](http://www.iisd.ca/agriculture/gcard3/)

SUMMARY OF GCARD3: 5-8 APRIL 2016

The 3rd Global Conference on Agricultural Research for Development (GCARD3) convened at the Birchwood Hotel and OR Tambo Conference Centre in Boksburg, South Africa from 5-8 April 2016. More than 500 participants from 83 countries gathered to address the overall theme of ‘No One Left Behind: Agri-food Innovation and Research for a Sustainable World.’ GCARD3 is a broad, two-year consultative process, that aims to provide a common platform for the wide range of actors involved in generating, accessing and using agricultural and food system knowledge around the world to, *inter alia*: learn about and explore ways to align regional and national priorities and activities with CGIAR Research Programs (CRPs); strengthen the collaborative partnerships elaborated at GCARD2 and explore new partnership modalities; catalyze discussions on essential changes in the focus, function and capability of national innovation systems, as expressed in the GCARD Road Map; and help agri-food research and innovation to realize its full potential in contributing to achieving the Sustainable Development Goals (SDGs).

The GCARD3 Global Event, a milestone in the GCARD3 process, was co-organized by CGIAR and the Global Forum on Agricultural Research (GFAR) and hosted by the Agricultural Research Council of South Africa (ARC). It was preceded by national and regional multi-stakeholder consultations in 2015 and early 2016 aimed at realigning research needs and priorities with countries’ own development needs and with the SDGs.

Integrated into the GCARD3 Global Event was the GFAR Partners’ Assembly, where representatives from farmer organizations, civil society, international and national research systems, rural advisory services, higher education, women and youth groups came together to discuss and decide on the collective actions, mechanisms and governance of GFAR through the establishment of its new Charter.

GCARD3 thematic sessions were held on 6 and 8 April and included plenary discussions and parallel thematic roundtables based on five key challenges identified during the preparatory national and regional dialogues. The five themes covered: Scaling up - from research to impact; Showcasing results and demonstrating impact; Keeping science relevant and future-focused; Sustaining the business of farming; and Ensuring better rural futures.

On 7 April, participants held a day-long research symposium at the ARC’s Roodeplaats Campus, in commemoration of the 25th anniversary of the host institution. The programme included plenary and thematic discussions, as



well as visits to field trial sites and the ARC Biotechnology Platform located at the Onderstepoort Veterinary Institute campus.

On the last day of the Conference, participants adopted the GCARD3 Outcomes Statement, based on key messages and commitments to collective action agreed during the thematic discussions. Containing 17 collective actions, the Outcomes Statement provides the basis for further action by all GCARD stakeholders in developing their agri-food research and innovations programs and activities to contribute to the 2030 Agenda for Sustainable Development (2030 Agenda). Specific commitments include: creating 1,000 additional PhD positions per year in “next-generation, future-relevant agricultural research”; promoting higher-education reform across 100 universities in five continents, combining multi-disciplinary training in agriculture-related sciences with skills in leadership, entrepreneurship, interpersonal relations and team building; developing “culture of impact”; creating a platform to harmonize agriculture-related indicators linked to the SDGs; clustering smallholder farmers to participate more effectively

IN THIS ISSUE

A Brief History of GCARD3	2
Report of the Meeting	2
Official Opening	2
Opening Plenary	3
Thematic Discussions	4
ARC Day	10
Closing Plenary	12
Upcoming Meetings	13
Glossary	15

The *GCARD Bulletin* is a publication of the International Institute for Sustainable Development (IISD) <info@iisd.ca>, publishers of the *Earth Negotiations Bulletin* © <enb@iisd.org>. This issue was written and edited by Wangu Mwangi, Olivia Freeman and Cleo Verkuijl. The Digital Editor is Kiara Worth. The Editor is Melanie Ashton <melanie@iisd.org>. The Director of IISD Reporting Services is Langston James “Kimo” Goree VI <kimo@iisd.org>. Funding for coverage of GCARD3 has been provided by GFAR. IISD can be contacted at 111 Lombard Avenue, Suite 325, Winnipeg, Manitoba R3B 0T4, Canada; tel: +1-204-958-7700; fax: +1-204-958-7710. The opinions expressed in the *Bulletin* are those of the authors and do not necessarily reflect the views of IISD. Excerpts from the *Bulletin* may be used in other publications with appropriate academic citation. Electronic versions of the *Bulletin* are sent to e-mail distribution lists (in HTML and PDF format) and can be found on the Linkages WWW-server at <http://www.iisd.ca/>. For information on the *Bulletin*, including requests to provide reporting services, contact the Director of IISD Reporting Services at <kimo@iisd.org>, +1-646-536-7556 or 300 East 56th St., 11D, New York, New York 10022, USA.



in research and development, and access finance and markets; and establishing foresight platforms to bring together farmers' organizations in the five regions with research and innovation actors from around the world.

During the closing session, representatives of the organizing partners welcomed the strong spirit of collaboration at GCARD3 and pledged to reflect these commitments and targets in the CGIAR Strategic Results Framework as well as the implementation and monitoring of the SDGs.

A BRIEF HISTORY OF GCARD3

The Global Conference on Agricultural Research for Development (GCARD) process was initiated to promote investment, partnership, capacity-building and mutual accountability in national agricultural systems to meet the needs of resource-poor farmers and their communities. The GCARD Global Events and their associated processes aim to help to refine regional and global agricultural research priorities, as identified by different stakeholder groups and representatives, in an inclusive way.

GCARD1: Held in March 2010 in Montpellier, France, GCARD1 addressed the overall theme of 'Enhancing Development Impact from Research,' and was preceded by a broad-based consultative process that aimed to identify the key themes and issues being addressed by stakeholders who are actively engaged in the entire agricultural system. The consultative process included a review of global agricultural research for development (AR4D) processes, electronic consultations and face-to-face dialogue in each region to identify priorities for AR4D and to frame the strategic operation of the CGIAR system. Specific questions addressed by GCARD1 included how to: identify some of the development needs where agricultural research can play its best role; move from research to development impacts at scale; develop more effective pathways to create impact for the poor; and identify the requisite investments, institutions, policies and capacities. GCARD1 resulted in the 'GCARD Road Map: Transforming AR4D Systems for Global Impact,' a six-point plan to advance inclusive priority setting, equal partnerships, increased investment, improved capacities and development impacts, and better communication of achievements.

GCARD2: GCARD2 took place in Punta del Este, Uruguay, in October 2012, under the overall theme of 'Foresight and Partnership for Innovation and Impact on Small-holder Livelihoods.' The Conference provided an opportunity for all sectors and regions to report their activities since 2010 and to agree on collective actions and next steps in implementing the GCARD Road Map and the CGIAR Strategy and Results Framework. The discussions highlighted, among other themes: how to align AR4D systems with major development policies; innovative AR4D agendas relating to, *inter alia*, household nutrition, gender-based needs, attracting young people into agriculture, meeting the needs of communities affected by protracted crises, linking farmers to markets, adapting to climate change impacts and fostering community-centered innovation; how to generate productive, sustainable and resilient agricultural production systems; and concrete actions to track and stimulate investments and returns and make these more effective and comprehensive by linking public, private and civil mechanisms. One of the main outcomes of the Conference was identifying several "pathways to impact" that led to 15 new commitments around partnership, capacity development and foresight in the CGIAR system and a range of new "Collective Actions" between national and international partners.



South African dancers perform at the opening ceremony of GCARD3

REPORT OF THE MEETING

OFFICIAL OPENING

GCARD3 formally opened on the evening of Tuesday 5 April 2016. Welcoming participants, Shadrack Moephuli,

President and CEO, ARC, emphasized the importance of ensuring that research outcomes are translated into products and technologies that offer value for farmers and contribute to countries' sustainable development objectives. Noting that 800 million people currently suffer from chronic hunger and malnutrition globally, most of who live in rural areas, he called for all stakeholders to explore how agri-food innovations can contribute to improved food and nutrition security.



Shadrack Moephuli,
President and CEO, ARC



Mortimer Mannya, Deputy
Director-General, Agriculture
Production, Health and Food,
Department of Agriculture,
South Africa

He called for smarter and more innovative solutions to scale up agricultural production and reduce poverty and hunger at a time of economic downturns, climatic variability and drought, pointing to South Africa's

Mortimer Mannya, Deputy Director-General, Agriculture Production, Health and Food, Department of Agriculture, South Africa, speaking on behalf of the Minister of Agriculture, welcomed participants to South Africa and thanked GFAR and CGIAR for partnering with ARC to make the conference happen. He called for smarter and more innovative solutions to scale up agricultural production and reduce poverty and hunger at a time of economic downturns, climatic variability and drought, pointing to South Africa's target to create at least one million jobs in the agricultural sector by 2030.



Hamady Diop, Head of Fisheries
and Aquaculture Programme,
NEPAD Agency

realities such as unstable financial markets and the growth

In his keynote address, Hamady Diop, Head of Fisheries and Aquaculture Programme, NEPAD Agency, highlighted the need to align research with new national and global priorities in line with the 2030 Agenda, as well as with emerging global

of information and communication technologies. Identifying agriculture and climate change, water productivity and biofuels as research priorities for Africa, Diop stressed the importance of empowering national AR4D systems and the role of farmers and other practitioners in agricultural research.

In her keynote address, Lindiwe Majele Sibanda, CEO, Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), described climate change, and malnutrition as two wicked problems facing the AR4D community. She noted strides made in the area of climate-smart agriculture (CSA), notably through the Africa CSA Alliance goal of reaching at least six million farming households by 2030. Noting that two billion



Lindiwe Sibanda,
CEO, FANRPAN

people worldwide face vitamin

and mineral deficiency, with high rates of child stunting in Africa that could lead to a generation “with half its intellectual capacity,” she challenged the AR4D community to break out of their silos to promote the production of diverse and nutrient-rich foods in order to ensure that “no one is left behind.”

OPENING PLENARY

HIGH-LEVEL PANEL: On Wednesday morning, Mark Holderness, Executive Secretary, GFAR, traced the origins of the GCARD process during the 2008 food crisis, noting that



Mark Holderness,
Executive Secretary, GFAR

the subsequent global consultations had led to GCARD1, the reform of the CGIAR and the GCARD Road Map. Highlighting the importance of breaking barriers within and between organizations and sectors, he described GCARD2's integrated initiatives

as contributing to this process. Going forward, Holderness stressed the need for: working together to achieve impact at scale; collective advocacy for better investment; strengthened innovation systems; better integration of research and society; and thinking beyond production to ensure integrated benefits.

Kwesi Atta-Krah, Director, CRP on Integrated Systems for the Humid Tropics, provided an overview of the GCARD3



Kwesi Atta-Krah, Director, CRP
on Integrated Systems for the
Humid Tropics

national and regional consultations processes leading up to the global event. He described the national country consultations as sustainable mechanisms for collaboration and processes for alignment of research and delivery. He outlined key lessons as including the need for: site integration among CGIAR centers and with their partners, to include adequate coordination and facilitation;

dedicated budgets; comprehensive consultation preparation involving all key stakeholders; a “listen and learn” approach not only dominated by CGIAR; national steering committees led by country officials; and recognition of the strong role of farmer associations, women and youth and the private sector.

In the ensuing discussion, panelists and participants reflected on successes and lessons learned from GCARD consultations held in Tanzania, Ethiopia, India and the Asia-Pacific region, highlighting the need to: understand national priorities; double agricultural research investments in the medium-term; and continue the process of national consultations held as part of GCARD3; incorporate farmers as equal research partners; build on indigenous knowledge; and increase the involvement of rural women in AR4D programmes, including through the use of local languages.

KEYNOTE ADDRESSES BY YOUTH FARMERS AND ‘AGRIPRENEURS’: During the opening plenary on Wednesday, Jim Cano, Young Professionals for Agricultural



Jim Cano, YPARD Philippines

Development (YPARD) Philippines, proposed a bottom-up and top-down approach to tackle the low involvement of youth in agriculture, focusing on: demonstrating agricultural opportunities in rural areas; building youth capacity through



Delegates gather for the morning plenary

dedicated career pathways; developing a synergy between generations; focusing on influential sectors in agricultural development; facilitating mentorship programmes; and including youth in high-level discussions.

Dimakatso Sekhoto, Makolobane Farmers Enterprises, discussed her vision for contributing to agricultural



Dimakatso Sekhoto,
Makolobane Farmers Enterprises

transformation in South Africa as a young, emerging, black, female farmer. She described her pilot project to develop a business model to ensure steady income streams for young graduates and provide them with technical training, business and

market support services and access to innovative financing. Concluding that “youth are the leaders of now, not tomorrow,” she called on GCARD3 stakeholders to enhance their partnerships with young farmers and networks.

On Friday morning, Maria Letizia Gardoni, Coldiretti Giovani Impresa, highlighted the contribution of young



Maria Letizia Gardoni,
Coldiretti Giovani Impresa

Italian agripreneurs to reinventing sustainable farming in Europe, describing four key innovations pioneered by young farmers as: using big data to counter the mis-labeling of agri-food products such as extra virgin olive oil; involving

disabled youth and other marginalized groups in the food sector; developing new products to respond to the rising demand for plant-based diets; and advocating for a paradigm where food is not seen in terms of commercial profit, but as a means to enhance environmental sustainability, social wellbeing and cultural diversity.

Tshepiso Marumo, Tshepi Beekeeping, discussed her company’s journey to become a producer of natural honey



Tshepiso Marumo, Tshepi Beekeeping

products in Botswana, thereby providing employment to twelve young people. She highlighted several of its corporate social responsibility activities, which include: supporting women and youth to develop business plans; offering research

opportunities to students; and promoting agrotourism.

THEMATIC DISCUSSIONS

On Tuesday and Thursday, delegates met in a series of panel discussions, working groups and roundtables to consider key issues under each of the five conference themes. Discussions under each theme were facilitated by a group of ‘Catalysts’ who led roundtable discussions to elicit concrete lessons and future-oriented solutions on key agri-food research and innovation challenges, as well as messages

for inclusion in the Global Event’s Outcomes Statement. Across the themes, the discussions aimed to identify: clear requirements for national and regional agricultural innovation systems to be effective and accountable mechanisms for delivering development impacts; and how to make international agricultural research an effective partner in contributing to national development outcomes.

SCALING UP – FROM RESEARCH TO IMPACT:

Chair Patrick Caron, French Agricultural Research Centre for International Development (CIRAD), and Co-chair Judith



Chair Patrick Caron,
French CIRAD

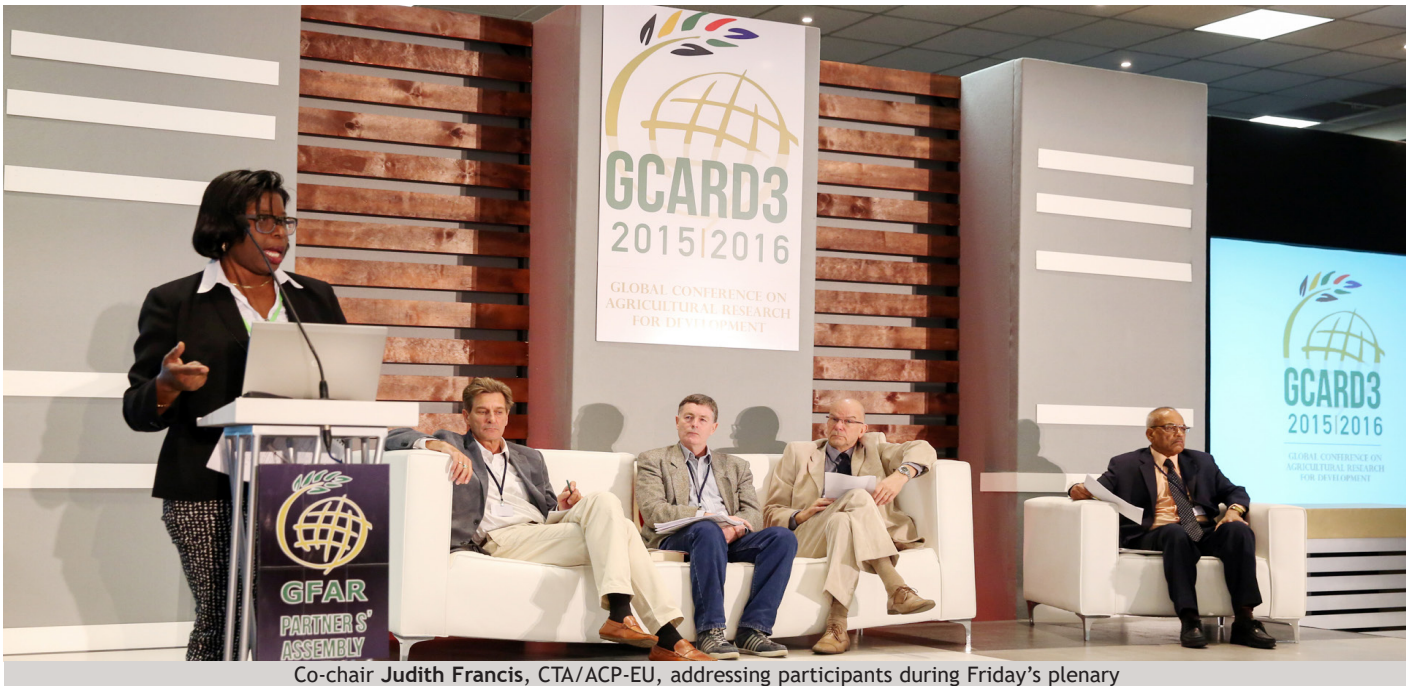
Francis, Technical Centre for Agriculture and Rural Cooperation of the African, Caribbean and Pacific Group of States and the European Union (CTA/ACP-EU) facilitated discussions under this theme. Framing the overall focus and purpose of the theme, Caron described the challenge of scaling technologies and impact, calling for participants

to think about the process of scaling down technologies and innovations to fit within local contexts instead of only focusing on scaling up, often locally-specific, solutions.

In the first panel session addressing how to strengthen the link between regional, national and local, through a focus on priorities, targets and impact, the Thematic Catalysts highlighted the need to draw on science-based knowledge to influence both policies and practices while paying attention to gaps between research and realities. They pointed to the West Africa Agricultural Productivity Program, which aims to build local food systems to end hunger and reduce poverty, as a good example of a regional program that is aligning science and technology with national and regional political priorities. Other examples highlighted efforts to link national targets to scientific targets, such as France’s ‘4 pour 1000’ initiative which aims to increase soil carbon sequestration to address both food security and climate change.

The second panel on learning from successes and failures at the local level provided two examples of innovative, local level, scientific initiatives. The first was on building local sorghum biomass production and value chains in Southern France. The second outlined a comprehensive national effort in Malawi that aims to provide all farmers with access to new orange-fleshed sweet potatoes varieties in order to address vitamin A deficiencies.

During a session exploring the impact of macro and global level initiatives designed to provide an enabling environment, Catalysts highlighted the work of the CRP on Climate Change, Agriculture and Food Security (CCAFS) and Acumen, noting they illustrate: five principles for AR4D including working at local, national and global levels; the “three-thirds principle” focusing on understanding needs, research and building capacity equally; the importance of tackling power and influence; co-learning and joining external processes; and drivers of adoption of new technologies and projects including affordability, awareness, access and advantage, and how to achieve adoption at scale. A presentation on a CIRAD study evaluating the long-term impacts of research on innovation and policies, noted the need to “grow a culture of impact” instead of just producing scientific knowledge.



Co-chair Judith Francis, CTA/ACP-EU, addressing participants during Friday's plenary

During roundtable discussions focused on 'Lessons learned for achieving impact at scale and recommendations to arrive at time bound commitments over 1-3 years,' participants responded to the following guiding questions: 'How do we achieve impact at scale?'; 'What resources, inputs and capacities are needed?'; and 'How do we integrate actions in particular locations/contexts and align different activities in networks and partnerships to promote innovation?'

On Friday, four Catalysts from Chulalongkorn University School of Agricultural Resources, Asia-Pacific Association of Agricultural Research Institutions (APAARI), Agreenium and AfricaRice discussed different approaches to overcome barriers to up/out-scale research and increase impact. Among other issues, they highlighted: the role of extension services in addressing challenges facing global agri-food systems and the need for innovation in research on extension services; the need for more investment in agriculture research in the Asia-Pacific region to promote innovative solutions; and the opportunity to draw on a conceptual framework developed by the Tropical Agriculture Programme (TAP), which describes four functional capacities relating to the ability to adapt and respond.

Final Messages: In plenary on Friday, Caron and Francis, summarized the discussion under this theme, noting the importance of linking impacts on the ground with the process of scaling up and out, and that alignment of objectives and partnerships, including with civil society, can be a crucial part of this process. Key messages included the need for: developing a culture of impact assessment within agricultural research; sustained and effective investment in research and innovation with a focus on both youth and policy; and embedding research into innovation systems using brokers as a main entry point.

SHOWCASING RESULT AND DEMONSTRATING IMPACT: Discussions under this theme were chaired by Thomas Price, GFAR Secretariat and co-chaired by Dhanush Dinesh, CCAFS. Price explained the theme would focus on evidence and experiences in measuring the impact of investments in national AR4D systems, especially with regard to increasing capacity to deliver on agri-food innovations.

During a first round of presentations, Thematic Catalysts highlighted, *inter alia*: the International Food Policy Research Institute (IFPRI)-led Agricultural Science and Technology



Delegates gather to discuss matters related to theme: Showcasing Results and Demonstrating Impact

Indicators initiative, which allows tracking of countries' agricultural research and development progress in line with SDG target 2(a); the experiences of the Platform for African-European Partnership on Agricultural Research for Development in organizing and strengthening multi-stakeholder partnerships; Bioversity International's Mapping Ecosystem Services to Human Well-Being tool; and a report by the International Panel of Experts on Sustainable Food Systems that advocates a paradigm shift from monoculture and industrial agriculture approaches to diversified agroecological systems.

Presenting regional research priorities for achieving the SDGs, APAARI noted the need for: new technologies for reducing pre- and post harvest losses; systems for mitigation of and adaptation to climate change; and designing systems to integrate smallholder agriculture into agro-industries.

In a panel session addressing methods and tools for measuring agricultural innovation and its impacts, the Royal Tropical Institute (KIT) shared reflections on the Prolinnova network, which seeks to promote farmer innovation at the local level. Other presentations highlighted YPARD's 10-year anniversary and the African Women in Agricultural Research and Development (AWARD) fellowship programme, a two year, non-residential fellowship that advances African women's science and leadership skills. The International Water Management Institute (IWMI) highlighted the SDG targets and indicators related to food security and irrigation.

During roundtable discussions, participants discussed, *inter alia*: recommendations to the SDGs on learning from best practices and engagement with stakeholders in collective actions; and how tools and resources can play a key role at the national level in supporting efforts to measure the impact of AR4D programmes. Key points raised by participants included: the importance of baseline data; the need to plan capacity development; and the need to find simple methodologies to measure impact. Participants also debated the strengths and weaknesses of a case study from Uruguay, where a levy of 0.4% on farm revenues contributes to the common good of agricultural research.

On Friday morning, participants continued their discussions in a session focusing on showcasing results and demonstrating impacts, especially at the national level.

Noting agricultural research for development can contribute the means to lift one third of humanity out of poverty and hunger, International Fund for Agricultural Development (IFAD) highlighted pioneering investments in areas such as in cassava mealybug control, New Rice for Africa, EverGreen Agriculture, and biogas from slaughterhouse waste. The



L-R: Chair Thomas Price, GFAR, and Co-Chair Dhanush Dinesh, CGIAR

Sardarkrushinagar Dantiwada Agricultural University underlined the need for new indicators to measure project impacts. The Australian Centre for International Agricultural Research shared case studies from its Impact Assessment Programme, which informs the Centre's work. FONTAGRO, a consortium of countries that finances agricultural research in Latin America and the Caribbean, noted its projects have generated 15 new technologies in the region, while IFPRI called for establishing real-time decision support systems for farmers involving: collaborative partnerships, open access to data, a robust information platform, data driven decisions, and quality assurance.

In the ensuing roundtable discussions, participants discussed promising examples of collaborative approaches to using evidence-based approaches to deliver national-level impacts; and key lessons emerging from integrated efforts at the national level that could be of relevance to the SDGs.

Final Messages: Reporting back to the plenary on Friday, Price noted that Catalysts had presented several strong analytical and conceptual frameworks and *ex ante* models, including for measuring change in ecosystem services and metrics for SDGs. Reflecting on lessons learned, he highlighted a relative lack of studies on the impact of completed collective actions, and the danger of pushing for highly complex indicators to measure change in the SDGs when obtaining more straightforward data often remains a challenge.

Dinesh outlined recommendations emerging from the thematic discussions, including: the need for inclusiveness, the importance of recognizing a diversity of approaches; and the value of taking a realistic approach towards achieving the SDGs.

KEEPING SCIENCE RELEVANT AND FUTURE-FOCUSED: Chair Aissétou Dramé Yayé, African Network for Agriculture, Agroforestry and Natural Resources Education, and Co-chairs Shoba Sivasankar and Wayne Powell, CGIAR, led discussions under this theme, which aimed to reach agreement on immediate collective actions to scale-out best practices in developing the capacity of national agriculture science, technology and innovation systems.

The opening round of Catalyst presentations outlined three perspectives for science including: the CGIAR integration effort, its new platform and focus area; an African agrarian philosophy that is built upon moral ethics, creativity and innovation to prioritize small-scale producers and nurture 'agripreneurs' and 'agripreneurship'; and the use of decision analysis to prioritize research for development impact.



Participants break out into discussion groups



Delegates gather to discuss matters related to theme: Keeping Science Relevant and Future-Focused

In a panel session focusing on challenges, the Thematic Catalysts from Regional Universities Forum for Capacity Building in Agriculture, the Association of Public and Land-grant Universities, IWMI, AGRINATURA and Global Confederation of Higher Education Associations for the Agricultural and Life Sciences discussed the need for: strengthening infrastructure, resources and institutions in Africa; harnessing the youth potential; narrowing the gap between research and training; strengthening partnerships between the CGIAR and universities; aligning research and educational priorities; attracting and retaining more students in the agricultural research field; ensuring capacity within new generations to address complex development challenges; and tailoring science to development.

During a session on strategies and solutions, Catalysts discussed initiatives and approaches for linking science to policies and decision making, highlighting, among other issues: the global futures and strategic foresight initiative, an integrated modeling approach to better inform decision making on agriculture development and food security; approaches for the inclusion of gender dimensions within foresight modeling and the GCARD process; and the 'Virtual Labs' approach to conducting collaborative scientific research within both developed and developing countries.

In successive roundtables, participants addressed relevant questions and emerging issues raised in the previous sessions, including how to: create opportunities for farmers through future-focused science; build capacity for technology development or adaptation; create jobs in agriculture through science; handle multidisciplinary issues in capacity building for research and ensure its relevance; encourage youth to become involved in, remain in agriculture; develop sustained capacity for technology and entrepreneurship; and ensure that institutions in developing nations gain from all available scientific and technical knowledge.

On Friday morning, a final panel discussion session heard from four Catalysts from Kenyatta University, the Centre for Agriculture and Biosciences International, the Agricultural Transformation by Innovation (AgTraIn) and International Livestock Research Institute. The Catalysts spoke on how to strengthen capacity for keeping science relevant and

future focused outlining frameworks that can be drawn upon in this process including: TAP's common framework for capacity development for agriculture innovation systems; multidisciplinary PhD training programs such as AgTraIn and the African Agricultural and Rural Innovation Programme; and instructional design driven innovation to help organizations more effectively fulfill their missions and programmes of work. Participants also highlighted the need for more dynamic and appealing agriculture education, promotion of exchanges and strategic learning partnerships, investment in infrastructure and attracting different income streams within African universities.

Final Messages: Reporting back to plenary on Friday afternoon, Chair, Yayé and Co-chairs, Sivasankar and Powell, said tackling global challenges will require renewal of training programmes and skills, which should happen as a unified stakeholder undertaking. They stated a need for attracting and retaining agricultural students and building capacity to promote innovation. The main messages they reported from their sessions included calls for: future-relevant agricultural research; university programmes that combine multidisciplinary training in agriculture-related sciences with skills in leadership, entrepreneurship, interpersonal relations and team building; and continuing professional development in agriculture for innovation and entrepreneurship in agricultural practices, products and services.



Chair Aissetou Yayé, ANAFE (center), and Co-Chairs Shoba Sivasankar, CGIAR (left), and Wayne Powell, CGIAR (right)

SUSTAINING THE BUSINESS OF FARMING: This thematic session was chaired by Jethro Greene, Caribbean Farmers Network (CaFAN) and co-chaired by Pamela Thomas, CaFAN, and Naledi Magowe, Brastorne Enterprises. A key objective of the session was to identify innovative mechanisms for mobilizing resources and resolving bottlenecks within value chains in order to enhance the participation of smallholders, especially rural youth and women.



Chair Jethro Greene, CaFAN

Introducing the session, Greene emphasized the importance of a change in mindset among agricultural stakeholders, towards viewing farming as a business, and farmers as entrepreneurs. During first round of presentations, Thematic Catalysts highlighted experiences from the Caribbean and Africa in clustering farmers to boost economies of scale and enhance their competitiveness and bargaining position within value chains. The Forum for Agricultural Research in Africa (FARA) highlighted its Integrated Agricultural Research for Development approach that draws on systems approaches to create innovation platforms within specific commodity chains in order to jointly diagnose problems, explore opportunities and facilitate needed changes for farmers.



Wole Fatunbi, FARA

During a session on innovative tools to linking farmers to markets, Catalysts highlighted: the “mAgri” mobile application from Botswana that provides farmers with access to market information, technical advice and agricultural credit; the Pan-Africa Bean Research Alliance’s work to enhance the aggregation of technology, business and policy support along transboundary “corridors” of bean production and consumption; and replication of the Kenya-based Seed Enterprise Management Institute model in West Africa.

In a session on policy, the CRP on Policies, Institutions and Markets outlined lessons from successful policy interventions, including: drawing on interdisciplinary approaches to facilitate thorough problem analysis; identifying all the actors involved in developing solutions, including those opposed to change; picking the right moment to intervene; and marshaling evidence to enrich the policy dialogue and yield pro-poor results. Discussing the need to move beyond one-off studies and small-scale pilot projects, FARA highlighted the need for more investment in agricultural science, technology and innovation, infrastructure development and education systems to build the capacity of Africans to participate in global knowledge production.

During a session on broadening access to sustainable agricultural lending and insurance, Catalysts discussed experiences from the Food and Agriculture Organization of the UN (FAO) and GFAR illustrating the importance of investing in data, information and technology to support both financial services providers as well as small agribusinesses and build profitable and inclusive value chains. They highlighted the importance of factoring in the cost, as well as asymmetries of data and information flows in order to strengthen the position of farmers in value chains.



Delegates discuss in groups

In the ensuing roundtables, participants addressed four questions on how to: foster clustering of smallholder farmers; enhance synergies among stakeholders; incorporate innovative techniques; and achieve a greater stake for farmers within value chains.

The discussions highlighted the importance of: providing effective training and mentoring for farmers’ groups; focusing on market access and business skills rather than production techniques; clarifying the respective roles of all stakeholders; developing delivery systems to manage funding earmarked for smallholders; ensuring professional facilitation; optimizing logistical services to lower transaction costs; improving post-harvest handling and storage; investing in value addition, packaging and branding; decentralizing food retail distribution hubs; and promoting research and learning on priority issues for the clusters.

Key Messages: Highlighting some messages from the discussions on Friday afternoon, Greene noted the need for: adopting clustering and grouping of smallholders as a key tool in linking farmers to markets and finance; developing inclusive partnership models that build on local farming practices, knowledge and priorities; investing in evidence-based data to inform policy dialogue and attract financing for smallholders; building sustainable and inclusive value chains that attract young people to farming; and preventing the displacement of farmers during large-scale land investments. In conclusion, Greene reported that Caribbean and African farmers’ networks had committed themselves to take on a leadership role and work with various organizations to take actions on these recommendations.

ENSURING BETTER RURAL FUTURES: Discussions under this theme were chaired by Iman El-Kaffass, Capacity Building and Management Consultant, co-chaired by Courtney Paisely, YPARD, and facilitated by Robin Bourgeois, GFAR Secretariat. Introducing the theme on Wednesday morning, El-Kaffass noted the objective was to achieve “immediate, wide-scale collective action, applying grassroots foresight mechanisms to achieve comprehensive rural development.”



Chair Iman El-Kaffass, Capacity Building and Management Consultant

In a session focusing on grassroots needs and aspirations for better rural futures, several Thematic Catalysts presented their work on foresight. GFAR defined foresight as “using the future to change the present, to change the future.” Plate-



Presenters of theme: Ensuring Better Rural Futures

forme Régionale des Organisations Paysannes d'Afrique Centrale (PROPAC) highlighted that their foresight work had helped to create hope in communities that sustainable agriculture is possible. YPARD emphasized the need for young professionals to recognize the value of foresight, and the organization's use of forward thinking in the development of the YPARD Asia and Pacific Development Plan.



Mohammadreza Davari, YPARD

The Rural Economy Institute highlighted its work to develop capacities of local partners in Mali and Madagascar to better equip them to respond to future challenges.

Sharing lessons from their foresight work, FARA, the Central Asia and the Caucasus Association on Agricultural Research Institutions, and the Association of Agricultural Research Institutions in the Near East and North Africa, emphasized the importance of: developing foresight competencies and capabilities at the individual and community level; encouraging youth foresight activities; and operationalizing foresight in locally constituted teams. The Foundation for South-North Mediterranean Dialogue presented the organization's efforts to promote dialogue for a shared vision of the future between Southern Mediterranean countries and Northern Mediterranean countries. Bioersity International emphasized the importance of continuously considering the trade-offs between specialization and diversification and how to take advantage of both types of approaches.

During a question and answer session, participants raised the importance of mapping stakeholders for foresight action. They highlighted the particular importance of accounting for marginalized groups in foresight activities, and using local languages. It was decided that since the Catalysts addressed many complementary issues, participants would be divided into two roundtables, one addressing the grassroots level of foresight, and the other addressing its regional dimension.



Participants work in breakout groups

In the ensuing roundtables, participants discussed the following questions related to their collective action on foresight: what they would be willing to commit to achieve together; who would take part in the action; what each partner would contribute; and what milestones would evidence progress.

On Friday morning, participants took part in a 'world café' in which they presented posters on two potential collective actions on foresight: one focusing on the local level, and the other on the national, regional and global levels. Stakeholders discussed how to measure the projects' success, and noted the complementarities between the two types of proposed actions. They agreed to merge the two actions into one collective initiative, dubbed the Alliance for Reappropriating Rural Futures, where feedback from grassroots foresight will feed into the national foresight work, which will in turn inform the global level, and vice versa. The initiative would be monitored and promoted by regional forums, including civil society and farmers' organizations.

Participants were then invited to consider how they would be able to contribute to the Alliance, and discussed practical and manageable next steps for launching the initiative, such as taking stock of grassroots foresight initiatives and establishing a representative working group. One participant noted that it could take some time to organize at the local level.

Final Messages: In her report-back of the thematic discussions, El-Kaffass described how the session had begun with seven potential collective actions, but that participants had eventually agreed to work on a single action in recognition of the complementarity of their approaches. Highlighting that many regions will be covered by the agreed upon 'Alliance for Reappropriating Rural Futures,' she expressed confidence that collaborative actions would begin within the next three months, and that the platform will help shape stakeholders' work in coming years.



Dancers perform a traditional Zulu dance to welcome participants to the ARC



Participants listening to Lindiwe Majele Sibandas speech at the start of plenary

ARC DAY

On Thursday, GCARD3 participants relocated to the ARC Roodeplaats Campus, for a special programme commemorating the ARC's 25th anniversary.

Lindiwe Majele Sibanda, CEO, FANR PAN and ARC Day Chair, thanked the ARC and GCARD3 organizers for "bringing Africa to the world." She welcomed the opportunity to learn more about the ARC's journey, noting, "their success is our success." Sibusiso Vil-Nkomo, Chair, ARC Council, welcomed delegates, noting the importance of the agricultural sector in Africa's development.



Sibusiso Vil-Nkomo,
Chair of Council, ARC

Speaking on the role of ARC and its importance for South African agriculture, Moshe Swartz, Acting Deputy Director-General of Land Redistribution and Development, Department of Rural Development and Land Reform, South Africa, noted that the country's agrarian transformation strategy is firmly embedded in its constitution. Stressing that the objective is to build vibrant and sustainable rural communities "who are the masters of their own destiny," he described several joint initiatives with the ARC, including the Agricultural Para-Professional Development Programme, which aims to contribute to "perpetual knowledge creation" for rural development. Noting "we are what we eat," he also highlighted his department's efforts to recover hundreds of lost indigenous vegetables and medicinal plants.



Moshe Swartz, Acting
Deputy Director-General
of Land Redistribution and
Development, Department
of Rural Development and
Land Reform, South Africa

ARC, THE PAST, THE PRESENT AND THE FUTURE:

In this session, current and former ARC programme staff highlighted some key successes and lessons learned since the establishment of the institute in 1992. Michiel Scholtz outlined the journey of livestock in South Africa and in the work of the ARC, highlighting its schemes for emerging farmers and a significant rise of the Animal Production Institute's (API) scientific publications in recent years. Cobus le Roux

explained the institute had managed to adapt to challenges by forging closer working relationship with government, industry, academic institutions, and the value chain at large, yielding the necessary financial security and proving its relevance within the agricultural sector.

Org van Rensburg outlined the process of the ARC transitioning from an idea to an internationally renowned research and development institution, emphasizing the role partnerships, including with industry, played in this process. He highlighted some successful projects including the establishment of high value crops in the Eastern Cape, the development of plant breeding programmes and the identification of disease resistant guava selections.

Shadrack Moeophuli, President and CEO, ARC, described the resilient approach of the ARC over the past 25 years as evidenced by its adapting to changing conditions and challenges to ensure impact and continued relevance over time. He stressed the important role that partnerships have played in this process and the need to directly link research to impacts on farmers.

Presenting the ARC's work on improved crop varieties, Kingston Mashingaidze highlighted the Water Efficient Maize for Africa and Improved Maize for African Soils initiatives, which are introducing drought, pest, and low-nitrogen tolerant seed varieties to boost food security and productivity of smallholder farmers. Speaking on livestock initiatives, Norman



Michiel Scholtz, Animal
Production Institute, ARC



Org van Rensburg, Research
Institute Manager, ARC



Kingston Mashingaidze,
Grain Crops Institute, ARC

Maiwashe noted that conventional breeding alone is not sufficient to address the challenge of food insecurity. He explained that cutting edge approaches to genetics, such as those adopted by the ARC Biotechnology Platform, are key to the implementation of rapid improvement programmes.

THEMATIC DISCUSSIONS: In parallel panel discussions ARC staff presented on research in different thematic areas.

Animal Production for Food Security: This session was chaired by Mishack Mulumba. Presenters highlighted the important role livestock plays in improving rural livelihoods and food security, but stressed challenges such as animals' reproductive inefficiency and susceptibility to diseases, harsh and fluctuating environmental conditions, lack of veterinary intervention, and the paucity of performance data.

Matshidiso Matabane highlighted efforts to enhance animal productivity through reproductive biotechnologies, such as



Matshidiso Matabane,
ARC

oestrus synchronization, artificial insemination and embryo transfer that exploit the genetic diversity of South Africa's livestock. Baldwin Nengovhela discussed achievements of the API's Poultry Value Chain project, which has already provided employment to over 500 South African rural youth, military veterans, and tradesmen in various units of the poultry business using the enterprise development approach.

Mirinda van Kleef presented the ARC-Onderstepoort Veterinary Institute's efforts to develop new livestock vaccines and educate and train rural farmers. She noted renewed optimism surrounding vaccine development thanks to developments into genome sequencing, systems biology tools, novel adjuvants, delivery systems, and insights into protective immunity. Farai Muchadeyi introduced the ARC's work on genotyping South Africa's indigenous goat populations to build an understanding of how they have genetically adapted to harsh and fluctuating environments, with the aim of forming decisions around proper utilization and conservation.

Closing the session, Mulumba noted that technologies are becoming more targeted and specific to the advantage of both commercial and smallholder farmers.

Sustainable Use of Natural Resources: Mphekgo Maila chaired the session, which showcased the research and work being done by the ARC to facilitate sustainable resource use.

David Turner provided an overview of how research on soil can be applied to promote sustainable production systems,



David Turner, ARC

including through detailed suitability assessments for crop production. George Chirima described how the ARC's remote sensing data supports farmers in making informed farming decisions. This, he said, includes suitability assessments, warning systems against disturbances and extreme events, and regular climate and vegetation information.

Justin Hatting and Roger Price presented on biocontrol methods. Hatting outlined ARC's work developing natural insecticides for insect control drawing on the example of using fungi to control aphid infestations. Price then

presented research using biocontrol approaches to address weed infestations. He described the process of identification, quarantined trials and application of biocontrol methods, which has resulted in controlling 28 weed infestations within South Africa.

Agricultural Technologies for Market Access Among Smallholder and Commercial Farmers: Petronella Chaminuka highlighted the results of ARC studies exploring



Petronella Chaminuka, ARC

the economic impacts of the national dry bean breeding programme. She discussed a cost-benefit analysis of national cultivar trials and conservation efforts, noting the results had shown a positive impact of ARC investments.

Aart-Jan Verschoor highlighted an ARC project to promote high value fruit and vegetable crops in the Eastern Cape, noting that while communal production of horticultural crops was not initially successful, the programme continued to work with farmers at the household level, reaching 5000 households in 13 villages and achieving most of its goals on establishing production, food security and skills development. Among lessons learned, Verschoor noted increased self-confidence among participants, including through the training of 900 lead farmers.

Dan Motiang, Kaonafatso ya Dikgomo, spoke on the dissemination of technology packages for the development and commercialization of the smallholder livestock sector. He noted innovations introduced by farmers, such as monthly auction sales, the diversification of livestock products and the use of local materials to erect sales pens and loading ramps. He also highlighted the project's contribution to women and youth empowerment and increased income for producers due to the availability of real-time market information.



Dan Motiang,
Kaonafatso ya Dikgomo

Presenting on ARC training programmes for farmers and extension officers focusing on improving access to markets, Thembi Ngotho highlighted the introduction of 32 demonstration sites, the establishment of community auction facilities, and fundraising for skills training and information dissemination.

AFTERNOON PANEL DISCUSSIONS: Agriculture Science and Technology Policies and Strategies for Sustainable Development: This panel discussion on

Thursday afternoon was chaired by Shadrack Moephuli. The



Shadrack Moephuli,
President and CEO, ARC

panel represented different industry partners including, André Jooste, Potatoes South Africa, Aggrey Mahanjana, National Emergent Red Meat Producers' Organisation, Victor Mbulaheni Mmbengwa, National Agricultural Marketing Council, and Simon Mwale, Southern African Development Community.

Panelists highlighted opportunities, challenges and pathways for sustainable development within the agriculture sector in South Africa. Discussion points included the need for: drawing on linkages between sectors, fields, and organizations; examining how to achieve effective technology transfer; conducting demand-driven research to inform policy; developing innovations in biotechnology to improve farming practices; creating an enabling environment to better connect different actors including smallholder and commercial farmers; informing agendas with better future forecasting; staying relevant to farmers and end users; engaging the private sector; and becoming better at learning from past challenges and experiences. Discussion further touched on what is required to scale up adoption of technologies and how much focus should be placed on smallholder versus commercial farmers.

Development of Young Scientists in the ARC: This session focused on the ARC's development of young scientists through its Professional Development Programme (PDP). Opening the session, Makgomo Umlaw stressed the need to create opportunities for previously disadvantaged communities, and the scarcity of skills in the labor market. She explained that the PDP builds students' skills by involving them in research projects; facilitating collaboration with universities; offering mentorship and coaching support and access to the ARC infrastructure; and providing them with international opportunities. In the ensuing panel discussion, six young female scientists involved in the PDP reflected on their academic journeys and presented their research in plant and animal genetics, sustainable farming practices, and meteorology.



Makgomo Umlaw, ARC

CLOSING PLENARY

YOUTH AGRIPRENEURS PROJECT AWARDS:

On Friday afternoon, participants convened in plenary for presentation of the Youth Agripreneurs Project (YAP) awards in a session moderated by Jasper Rees, ARC.

Peter Casier, GFAR, introduced the YAP concept, a pilot programme to support and develop initiatives by young agripreneurs. Five finalists then introduced their winning projects: Kellyann Allcott presented on the Ibis Project in Barbados, which produces organic beauty products; Nikki Pilania Chaudhary discussed the 'Dairy Farmer' project in India; Josine Macaspac presented on a mechanical pest-removal system in the Philippines; Jony Girma, highlighted an organic honey production project in Ethiopia; and Lillian Beuttah presented on 'Afrika Jilische' a food security initiative in Kenya.



Peter Casier, Independent Consultant, thanks Fiona Chandler, GFAR, for her support in realizing the Youth Agripreneurs Project

GCARD3 OUTCOME: On Friday afternoon, Shadrack Moephuli, President and CEO, ARC, presented the draft GCARD3 Outcomes Statement, which participants adopted by acclamation.

The GCARD3 Outcomes Statement, which will guide the work of partners and stakeholders over the next three years, contains 17 collective actions, organized under the five themes of the Conference, accompanied by three implementing principles.

The document begins by outlining the overall context of the proposed interventions, explaining how the five key challenges identified during the preparatory national and regional dialogues informed the five thematic strands of the GCARD3 global event. It then lists the agreed actions under each theme.

On 'Scaling up: from research to impact,' GCARD3 participants agree to:

- develop a "culture of impact";
- lobby for investment and capacity building with a focus on youth and policy making; and
- embed research into innovation systems.

On 'Showcasing results and demonstrating impact,' GCARD3 participants agree to:

- build on the lessons learned from past successes and failures in order to contribute to measuring progress towards the SDGs;
- contribute to national measurements of progress towards the SDGs, and build national capacity for integrated measurements, engaging with diverse stakeholder groups; and
- create a platform to harmonize agriculture-related indicators linked to the SDGs, in order to improve collective action for impact.

On 'Keeping science relevant and future-focused,' GCARD3 participants agree to:

- create 1,000 additional PhD positions a year in "next-generation, future-relevant agricultural research";
- promote higher education reform across 100 universities over five continents, focusing on combining multi-disciplinary training in agriculture-related sciences, with skills in leadership, entrepreneurship, interpersonal relations and team-building; and
- continue professional development in agriculture for innovation and entrepreneurship in agricultural practices, products and services.

On 'Sustaining the business of farming,' GCARD3 participants agree to:

- support the clustering of smallholder farmers for greater participation in research and development, and links to finance and markets;
- build value chain partnerships for success while recognizing traditional farming methods and practices;
- develop evidence-based and demand driven data to enrich policy and attract finance;
- protect small farmers' access to resources and build their business skills;
- open up innovation platforms for farmers to provide access to new technologies; and
- address public health and nutrition in agricultural research and innovation programmes.

On 'Ensuring better rural futures,' GCARD3 participants agree to:

- establish foresight platforms that bring together farmers from different regions with research and innovation actors from around the world to develop and select preferred future scenarios; and
- collectively plan, design and implement initiatives to change the present to shape/achieve the desired future.



Panel speakers for the closing plenary (L-R) Mariam Al Jaajaa, The Arab Network for Food Sovereignty/APN; Bernard Rey, European Commission; Elisabeth Atangana, PROPAC; Sana Jatta, IFAD; Charles-Ferdinand Nothomb, Minister of State, Belgium; and Frank Rijsberman, CEO, CGIAR Consortium

Finally, the GCARD3 Outcomes Statement identifies the following implementing principles for implementing the agreed actions:

- national partners will work with rural communities to shape their own futures, taking an integrated, multi-sectoral approach to address capacity needs and constraints in innovation systems;
- CGIAR, and other international research systems, will actively engage with national agricultural systems, strengthen and add value to national partners, and help deliver on national development objectives; and
- public, private and civil partners will find new ways of bringing together finance and capacity development, embedded in wider development investments and operating through community-driven, nationally-led and regionally and internationally-supported mechanisms.

PANEL ON GCARD3 OUTCOMES AND FOLLOW-UP: In a final panel discussion, moderated by Frank Rijsberman, CEO, CGIAR Consortium, panelists provided regional and global perspectives relating to the GCARD3 outcomes.

Mariam Al Jaajaa, Arab Network for Food Sovereignty/Arab Group for the Protection of Nature, highlighted the growing problem of food insecurity due to protracted crises in the Near East and North Africa region, and stressed the need for comprehensive research into the root causes.

Stressing the role of domestic resource mobilization and innovation, Bernard Rey, European Commission, highlighted the recent launch of the jointly funded and co-owned EU-Africa Partnership on Research and Innovation on food and nutrition security and sustainable agriculture.

Elisabeth Atangana, President, PROPAC, underlined the need for science to evolve and adapt to communities' demands and advocated strengthening efforts to convince donors of the value of agricultural investments.

Sana Jatta, Regional Director, IFAD East and Southern Africa Division, recommended deeper involvement of developing country governments in the GCARD process; strengthening Africa's research capacities; enhancing efficiency gains; and rapid scale-up of research into operations.

Charles-Ferdinand Nothomb, Minister of State, Belgium, called for increasing resources in rural communities through government lobbying and decentralization. He said the rural reality needs to be included in public budgets, given the rural population's local, global and political importance.

CLOSING STATEMENTS: In his closing remarks, Rijsberman thanked GCARD3 participants for contributing to the CGIAR reform process, noting the importance of the national and regional processes in informing the Strategic Results Framework.

Remarking that "for first time ever, we have bridged science and society to shape our futures," Mark Holderness, Executive Secretary, GFAR, expressed appreciation for the willingness shown by more than 500 GCARD3 delegates from 83 countries "to go forward together." He noted that the Conference had shaped a package of tangible actions that "we can proudly take to the SDG review process." Emphasizing "the immense consensus" reached at GCARD3 on solid actions and targets, Holderness said GFAR would take the commitments into the political arena, through forums such as the FAO Council. Litha Magingxa, ARC, thanked partners, organizing committees, theme chairs and co-chairs, 'Catalysts,' participants and all others involved in the organization and facilitation of the event. He closed GCARD3 at 5:35 pm.

UPCOMING MEETINGS

ISPC Science Forum 2016: The overarching objective of the 2016 Science Forum is to rethink the pathways for agricultural research to stimulate inclusive development of rural economies in an era of climate change. Co-hosted by the CGIAR's Independent Science and Partnership Council (ISPC) and the UN Economic Commission for Africa, the Forum will build on the outcomes of the last two Science Forums, which focused on research and partnership issues related to the CGIAR System Level Outcomes (SLOs) on agriculture and the environment and the potential contribution of agriculture to nutrition and health outcomes. With the new CGIAR Strategy and Results Framework having three SLOs, the 2016 Science Forum will therefore focus on the final SLO, which addresses the contribution of agriculture to reducing poverty. **dates:** 12-14 April 2016 **location:** Addis Ababa, Ethiopia **contact:** ISPC/FAO, Viale delle Terme di Caracalla, Rome, Italy **phone:** +39 06 57052103 **e-mail:** scienceforum2016@gmail.com **www:** <http://www.scienceforum2016.org/>

33rd Session of the FAO Regional Conference for the Near East: The meeting will convene under the theme 'Promoting food security, blue growth and empowerment of small-scale farmers and women in the North East and North Africa region. The meeting will focus on FAO priority activities in the region, including the decentralization process,

as well as achievements regarding the three regional initiatives on: resilience for food security and nutrition; small-scale agriculture for inclusive development; and water scarcity. **dates:** 18-22 April 2016 **venue:** Hilton Metropolitan Palace Hotel **location:** Beirut, Lebanon **contact:** Mariam Hassanien **e-mail:** Mariam.hassanien@fao.org **www:** <http://www.fao.org/about/meetings/nerc33/en/>

International Conference on Pulses for Health, Nutrition and Sustainable Agriculture in Drylands: Held on the occasion of the 2016 International Year of Pulses, this conference will provide a multi-stakeholder platform to consider the following themes: global scenarios on pulses production, consumption and trade; innovative techniques for pulses improvement and adaptation; diversification and sustainable intensification of agri-food systems through pulses; seed systems, input markets and mechanization; nutrition, fortification, health and food security; and social, economic and policy issues. **dates:** 18-20 April 2016 **venue:** Palais des Congrès, Avenue Mohammed VI **location:** Marrakesh, Morocco **contact:** Michael Baum, Director, Biodiversity and Integrated Gene Management Program **e-mail:** m.baum@cgiar.org **www:** <http://www.icarda.org/pulses2016>

UNGA High-level Thematic Debate: Achieving the SDGs: The President of the UN General Assembly (UNGA), Mogens Lykketoft, will convene this high-level thematic debate on achieving the SDGs as one of three high-level events during UNGA 70. **date:** 21 April 2016 **venue:** UN Headquarters **location:** New York City (NYC), US **contact:** Office of the President of the UNGA **e-mail:** dowlatshahi@un.org **www:** <http://www.un.org/pga/70/events/sdgs/>

Second Informal Consultation with Member States on Follow-up and Review of the 2030 Agenda: This meeting is part of the informal intergovernmental consultations on the global follow-up and review of the 2030 Agenda, co-facilitated by the Permanent Representatives of Belize and Denmark. It will seek to further understand “substantive issues where a decision is needed,” taking into account a non-paper to be issued by the co-facilitators on potential elements of a UN General Assembly (UNGA) resolution on follow-up and review of the Agenda. **date:** 25 April 2016 [tentative] **venue:** UN Conference Building **location:** NYC, US **contact:** Irena Zubcevic, UN Division for Sustainable Development **phone:** +1 212 963 4528 **e-mail:** zubcevic@un.org **www:** <https://sustainabledevelopment.un.org/hlpf>

Fourth African Regional Conference on Irrigation and Drainage: The International Commission on Irrigation and Drainage (ICID) is organizing this conference, which is hosted by the Egyptian National Committee on Irrigation and Drainage (ENCID), on the theme, ‘Agricultural Land and Water Management for Sustainability under Climate Variability’. The conference will focus on boosting agricultural productivity in Africa, based on irrigation and drainage. **dates:** 26-28 April 2016 **venue:** Pyramisa Hotel & Resorts **location:** Aswan City, Egypt **contact:** Mohamed Hassan Amer, ENCID Chairman **phone:** +202 44464505 **fax:** +202 44464504 **e-mail:** arcid@encid.org.eg or encid@link.com.eg **www:** <http://www.encid.org.eg/arcid/index.htm>

Third Meeting of the CFS OEWG on SDGs: The Open-Ended Working Group (OEWG) on SDGs was created by the Committee on World Food Security (CFS) at its 42nd session, with the task to discuss how CFS can put the implementation of the 2030 Agenda and the SDGs at the center of its

work. Specifically, the OEWG is expected to analyze those SDGs that are related to sustainable agriculture and food security and nutrition, agree on how CFS can provide a platform for sharing, learning and identifying challenges and achievements, and address policy gaps. **date:** 27 April 2016 **location:** Rome, Italy **contact:** CFS Secretariat **e-mail:** cfs@fao.org **www:** <http://www.fao.org/cfs/en/>

Third Meeting of the CFS OEWG on Nutrition: Established under the auspices of the CFS, this OEWG on Nutrition will consider CFS’ role in advancing nutrition. It is expected to discuss proposals for a CFS workstream on nutrition. The OEWG will report to CFS 43 in October 2016 and CFS 44 in October 2017. **date:** 29 April 2016 **location:** Rome, Italy **contact:** CFS Secretariat **e-mail:** cfs@fao.org **www:** <http://www.fao.org/cfs/en/>

30th Session of the FAO Regional Conference for Europe: The 30th session of the FAO Regional Conference for Europe will include a ministerial roundtable on the SDGs and their implications for agriculture and rural development in Europe and Central Asia. The conference will also address the priorities for FAO’s work in the region, including trends, development objectives, challenges, and priority setting in the next programming cycle in preparation for the Medium-Term Plan 2018-2021. **dates:** 4-6 May 2016 **location:** Antalya, Turkey **contact:** Goran Stavrik, Secretary of the Conference **e-mail:** ERC-ECA-Secretariat@fao.org **www:** <http://www.fao.org/about/meetings/erc30/en/>

Eighth Trondheim Conference on Biodiversity: This meeting will focus on ‘Food systems for a sustainable future: interlinkages between biodiversity and agriculture,’ with a view to identifying approaches for the achievement of mutually beneficial and sustainable outcomes, in the context of the 2030 Agenda. **dates:** 31 May - 3 June 2016 **location:** Trondheim, Norway **contact:** Norwegian Environment Agency **www:** <http://www.trondheimconference.org/>

Africa Agriculture Science Week and General Assembly of the Forum for Agricultural Research in Africa: These meetings will bring together the main stakeholders in African agricultural science, technology and innovation to discuss the operationalization of the scientific agenda for agriculture in Africa at country level. Under the overall theme of ‘Apply Science, Impact Livelihoods,’ the Science Week will address, *inter alia*: institutional systems and policies for making science work for African agriculture; sustainable productivity growth, value chains and profitable agribusinesses; human capital development and the youth; sustainable financing of science, technology and innovation for African agriculture; and megatrends in African agriculture. **dates:** 13-16 June 2016 **location:** Kigali, Rwanda **contact:** FARA Africa **www:** <http://faraafrica.org/aasw7/>

GACSA Annual Forum Week: Focusing on the theme ‘Climate-Smart Agriculture in Action,’ the 2016 Global Alliance for Climate-Smart Agriculture (GACSA) will bring together GACSA members, partners and interested parties to share solutions, discuss challenges and build partnerships. Organized around field visits, a two-day core event and working meetings, GACSA 2016 will review, among other issues: partnerships in action; CSA case studies; metrics for CSA investments; climate finance for agriculture; knowledge action groups; regional CSA alliances; and a call to action. **dates:** 14-17 June 2016 **location:** Rome, Italy **contact:** GACSA-Facilitation-Unit@fao.org **www:** <http://www.fao.org/gacsa/annual-forum/en/>

High-Level Political Forum on Sustainable Development (HLPF 2016): Convening under the auspices of the UN Economic and Social Council (ECOSOC), this meeting will take place on 11-15 July 2016, followed by a three-day ministerial meeting of the Forum on 18-20 July 2016. The theme of the 2016 session will be ‘Ensuring that no one is left behind.’ **dates:** 11-20 July 2016 **venue:** UN Headquarters **location:** NYC, US **contact:** Marion Barthelemy **phone:** +1 (212) 963-4005 **e-mail:** barthelemy1@un.org **www:** <https://sustainabledevelopment.un.org/hlpf>

2016 International Conference on Sustainable Development: The fourth annual International Conference on Sustainable Development (ICSD), on the theme ‘Moving Forward: The SDGs in Practice,’ will bring together members of the research, policy, practice and business communities to share practical solutions for achieving the SDGs at local and national levels. The Conference will focus on four thematic areas: Innovation in Technology and Governance; Data (data systems, gaps, how to collect); The Science-Policy-Implementation Interface; and Education and Training. The main topics for discussion will be: Low Carbon Urban Development; Socially Inclusive Economic Growth; Agriculture, Food Security and Nutrition; and Disaster Resiliency and Adaptation. **dates:** 21-22 September 2016 **venue:** Lerner Hall, Columbia University **location:** NYC, US **e-mail:** info@unsdsn.org

Global Consultation on Farmers’ Rights: Suggested by the sixth session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR), the Global Consultation on Farmers’ Rights will be hosted by Indonesia and co-sponsored by Norway. The meeting will be informed by a series of pre-consultations held back to back with other ITPGR meetings, and an electronic survey. **dates:** 27-30 September 2016 **location:** TBC **contact:** ITPGR Secretariat **phone:** +39-0657-055-430 **fax:** +39-0657-063-47 **e-mail:** pgrfa-treaty@fao.org **www:** <http://www.planttreaty.org/content/farmers-rights>

Second World Irrigation Forum: The Second World Irrigation Forum (WIF2) is organized under the theme, ‘Water Management in a Changing World: Role of Irrigation in Sustainable Food Production’. The meeting will discuss: how actors are balancing the demands of maintaining water supply, producing food, generating energy and protecting ecology; managing climatic extremes, especially floods and droughts; and “smart actions” for alleviating hunger and poverty through irrigation and drainage. **dates:** 6-12 November 2016 **venue:** Chiangmai International Convention and Exhibition Centre, Chang Phuak subdistrict, Mueang district, Chiangmai **location:** Chiang Mai, Thailand **contact:** Thai National Committee on Irrigation and Drainage (THAICID) secretariat **phone:** +662 241 0068 **fax:** +662 243 7870 **e-mail:** thaicid@hotmail.com **www:** http://www.icid.org/conf_wif.html

First International Agrobiodiversity Congress 2016: Organized by the Indian Society of Plant Genetic Resources and Bioversity International, a member of the CGIAR Consortium, this event will provide a platform for stakeholders to discuss issues and ideas around the sustainable management of agricultural biodiversity. It will bring together experts in agricultural biodiversity and genetic resources, biotechnology, nutrition, ecology and environmental science, agronomy, forestry, law and policy analysis, economics and other related fields of science and the social sciences. **dates:** 6-9 November 2016 **venue:** Vigyan Bhavan Conference Centre,

Vigyan Bhavan Rajpath Area, Central Secretariat, New Delhi, Delhi 110001 **location:** New Delhi, India **contact:** Congress Secretariat (Bioversity International) **phone:** +91 11 25849000/1/2 **fax:** +91 11 25849002 **e-mail:** info@iac2016.in **www:** <http://www.iac2016.in/index.html#home>

Pulses for Nutritional Security and Agricultural Sustainability: Organized as one of 10 ‘Signature Events’ of the 2016 International Year of Pulses (IYP 2016), the “PulsCon2016” international conference will provide a forum for researchers, policy makers, extension workers, traders and entrepreneurs to discuss various strategies for nutritional security and environmental sustainability through pulse crops, and to draft a road map for increasing the productivity and profitability of pulses. The themes to be addressed include: global trade, marketing and policy issues in pulses production and consumption; genetic enhancement; production and biotic stress management; secondary agriculture initiatives, including nutrition and health, biofortification, and processing and value addition; and participatory technology development and adoption. **dates:** 12-14 November 2016 **location:** New Delhi, India **contact:** Conference Secretariat, Indian Institute of Pulses Research, Kanpur **e-mail:** secretary.isprd@gmail.com **www:** <http://www.fao.org/pulses-2016/events/detail/en/c/381790/>

GLOSSARY

ARC	Agricultural Research Council
AR4D	Agricultural Research for Development
CCAFS	CRP on Climate Change, Agriculture and Food Security
CRP	CGIAR Research Programme
CSA	Climate-Smart Agriculture
FANRPAN	Food, Agriculture and Natural Resources Policy Analysis Network
FAO	Food and Agriculture Organization of the United Nations
GCARD	Global Conference on Agricultural Research for Development
GFAR	Global Forum for Agricultural Research
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
PROPAC	Plate-forme Régionale des Organisations Paysannes d’Afrique Centrale
SDG	Sustainable Development Goal
YPARD	Young Professionals for Agricultural Development

