



YOUTH FOR GROWING DEVELOPMENT

Young Professionals' Platform for Agricultural Research for Development

Newsletter

Volume 01/Issue 02 – April 2009

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Dear Young Professionals',

We are happy to introduce the April 2009 edition of YPARD newsletter, with articles from Alisher Mirzabaev on CGIAR-CAC program and M.S.A. Elfattah on "Beehome; how it looks like". YPARD welcomes Nadia-Manning Thomas, IWMI, Ethiopia and Peter Mutua Mwaura, Jomo Kenyatta University, Kenya as Steering Committee members of YPARD. Also in this issue are the updates on ongoing activities, outcome of past meetings and introduction to ARD organization, CTA. Thank you all for excellent support and efforts in growth and development of YPARD!

Coordination Unit



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CGIAR Collaborative Research Program for Sustainable Agricultural Development in Central Asia and the Caucasus – Developing research competence for food security, poverty adaptation and climate change adaptation and mitigation

The CGIAR Collaborative Research Program for Sustainable Agricultural Development in Central Asia and the Caucasus contributes to achieving the overall goals of food security, economic growth, environmental sustainability and poverty alleviation in the countries of Central Asia and the Caucasus. These countries are undergoing an often painful transition from the unified and planned economy of the Soviet Union to national, market-oriented economies. The collapse of the Soviet Union has disrupted the links between producers and consumers, and between research and production, and contributed to dismantling the traditional systems of agricultural extension and support without providing new structures. Agricultural research has come to a virtual halt and capacity building is weak.

The immediate objective of the Program is therefore to assist the CAC countries in achieving sustainable increases in the productivity of crop and livestock systems through development, adoption and transfer of production technologies, natural resource management and conservation strategies, by strengthening agricultural research and fostering cooperation among the CAC countries and international agricultural research centers. The research problems are inter-related and the development of solutions requires a research program that integrates crops, livestock, natural resource management and the necessary policies to support improvements.

This eco-regional program, which is convened by ICARDA, has enabled nine other CG Centers and three Advanced Research Institutes to work together as a system-wide initiative ("System-Wide Ecoregional Program" or SWEP) to address these important research priorities and assist with capacity building to the national agricultural research systems (NARS). Five of the nine CG Centers involved - ICARDA, CIMMYT, Bioversity International, IWMI, CIP, plus ICBA, MSU and The World Vegetable Centers have strengthened their programs by posting international and regional staff in the region. Several inter-center project activities have been initiated with a total project volume of about 20 million USD since 1998, when the program was founded. The program has recently also expanded its partnerships with international academic institutions such as the Universities of Bonn and Tokyo.



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New improved germplasm was introduced for major food and feed crops and was rigorously evaluated under varied agro-ecological conditions which resulted in release of 37 improved cultivars, tolerant to biotic and abiotic stresses, in different crops. A seed production system was promoted to ensure that good quality seed become available to the farmers. At the same time, germplasm conservation activities in the region have made significant progress and new gene banks have been established in all the eight countries. Research on soil and water management has resulted in the development of more efficient technologies. Zero-till and conservation agriculture are being widely adopted by Central Asian farmers with coverage of 2 million hectares in Kazakhstan alone. Crop-livestock integration and range management have contributed towards improving livestock productivity and reducing the pressure on grazing lands. Capacity building has been another major accomplishment. By now, more than 6,000 scientists have either been trained or been provided an opportunity for participation in various national, regional and international meetings, workshops and conferences. More than 10,000 farmers were sensitized and trained on improved sustainable agricultural technologies through numerous farmer field days and farmer field schools. The Program from its very beginning has made special efforts to impart English language training, from which, so far, more than 400 scientists have benefited.

The existing partnerships are currently being extended to ensure the more active involvement of other stakeholders, especially non-government organizations (NGO's), farmers' associations, the private sector and Advanced Research Institutions (ARI's) as well as various other research institutions. Emphasis will be laid on outreach activities, integration of the partner centers amongst each others and between them with the NARS and the national scientific partners, on academic capacity building, on providing excellent science and on delivering international public goods by providing not only answers to regional problems but also to global challenges such as research on desertification and climate change.

The program was evaluated externally in 2008 and the review panel came to the conclusion that *"...the CAC Program [is] productive and highly important for the region. It is a Program that definitely needs to be continued and efforts must be undertaken at various levels of the CG system to ensure its future sustainability."*

CAC Program plays the role of a catalyst for the regional collaborative agricultural research

One of the major thrusts for the program has been to re-activate the links among the CAC NARS that were ruptured after the disintegration of the Soviet Union, and open a window for them to integrate with the global agricultural research community.



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Facilitated by Program Facilitation Unit, a Regional Association of Agricultural Research Institutes for CAC countries (CACAARI) has been established, A Regional Vegetable Research and Development Network, Regional Association of Seed Producers and Regional Rice Network were established which are forging linkages among the NARS and with international and regional organization.

The Program efforts in strengthening partnership with the National Agricultural Research Systems (NARS) and initiatives in development of sustainable agriculture in the region have been highly appreciated by the NARS and international partners. The CGIAR King Baudouin "Science Award for Outstanding Partnership" awarded to the Program at the Annual General Meeting 2008, reflects an excellent example of true participation of NARS, CGIAR centers and advanced research institutions that applies research to find solutions to the particular development challenge of regions in economic transition. All this has become possible thanks to continuous resource mobilization efforts of all the Consortium members and the generous support of the donor community.

Contact: Alisher Mirzabaev (a.mirzabaev@cgiar.org), a young professional working in ARD

"Bee home: how it looks like?" by M.S.A. Elfattah, a young professional working in ARD:

Did any one of us ask him/her self about bee home and life style of bees. Did you think one day where are bees living and how bee home (nest-hive) looks like. Did you try to search about the relationship between different individual in the bee colonies. I remember when I was a young kid how I was so happy in the week end to play and waiting my mother when coming back from the market. I think just if you think deeply about many living organisms in the nature not in particular about bees many questions will raise in your head. Let me fly to some bees and visiting their homes; so do you mind to join me this interesting trip. I hope your answer will be yes and I wish that you will enjoy see amazing facts and miracles about bees. We will visit three home (nests) of bees which I have been studied; leafcutting bee, sweat bee, and honey bee. Leafcutting bees make their own nest on the mud walls, plant stems and straws, we found many nests in Ismailia (Eastern part of Egypt). When you get closer from the nest you can find male and female; females visiting flowers to bring the food for their larvae (young babies) and build their nests. Each straws contain from 5 to 7 cells each cell have one egg with their food (nectar with pollens) covered by roll of alfalfa leaf. Oh back to my childhood my father went to his work and my mother went to the market to offer us good life; help us to be good persons in the society.



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So how about the bees; male and female continue their life in spring season; take care to their families then die and the next generation will appear soon next spring for repeating same cycle; generations follow generations same like human begins.

Sweat bees make their own home (nest) on the ground; during my field trip to Hokkaido (Northern part of Japan); I found sweat bees nest of the genus *Lasioglossum*. It was amazing for me to see the females dig on the soil for building the nest, then go to flowers for bringing the nectar and pollen for the larvae (Fig. 2). By the end of the season the female and male die and with the next spring the next generation will continue the same cycle. During two days of my observation of the nest; I have seen very interesting box game but not between "Mike" Tyson or Mohamed Ali; the game between the female of *Lasioglossum* bee and wasps. I think all of us wondering about the result; the female bee dead; bee fight not for oil or money bee fight for keeping their home and family safe and far from the enemy. Bee fight until the last breath of life; fight with honor without any help from untied nation or right agencies.

Honey bees build their home (nest; colony; hive) from the wax; you can see many hexagonal eyes build on the hive by honey bee workers which do all the jobs in the colony except mating and laying eggs.

Honey bee have a high social life; caste system which have drones, queen and workers; and overlapping of different generations. If you have the chance to check and see honey bee hive; you will feel that you visit a great organized society; workers work in hive; others work out side to bring the food; male are ready for mate and queen after mating start laying thousands of eggs. You will find also brood cells (larvae and pupae) and other hexagonal eyes contain honey and pollen grains for storage during winter season which have no flowers.

Finally, bees have no constitution, no international law, no united nation, no police or force, no hearts with a high capacity of love, no education, no mosques and churches but in actual practice we are human being behind that's great insect which have about 20 000 species world wide.

M. Shebl Abd Elfattah, Entomological Laboratory, Graduate School of Bio resource and bioenvironmental, Kyushu University, Fukuoka, 812-8581, Japan - mohamedshebl2002@hotmail.com



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Outcome of the meetings participated/organized by YPARD:

YPARD Steering Committee meeting 2009:

The steering committee meeting was held during 26 to 28th March in Hanover, Germany. Next to organizational matters, the outcome of YPARD's review (draft report) and the further development of its strategy were discussed by the SC members. Ariga Grigoryan was reelected as SC member. Peter Mutua Mwaura and Nadia-Manning Thomas were elected as new SC members. The following activities (up to 07/2009) are planned and were approved by the SC:

1. Newsletter (April and June) and Funding news bulletin (May and July)
2. First phase of restructuring of website
3. YPARD info-booth at the Science Forum 2009 and meeting with young researchers, Wageningen, NL
4. Capacity building workshops in India and Kenya– Grant writing
5. Continuation of local and regional activities (pilot projects)
6. Hannover Summer School on Sustainable Environment, Germany

4th world congress on conservation agriculture:

On behalf of YPARD, Dr. Gopal Kumar participated in 4th World Congress on Conservation Agriculture, Theme: Innovation for improving efficiency, equity and environment held from 4th to 7th February in Delhi. He presented a paper entitled "Soil Organic carbon dynamics under semiarid condition of Gujarat: A step towards carbon sequestration and conservation" coauthored by his fellow scientists Dr. H.B. Singh and Dr. S. P. Tiwari under theme "Climate change"

From a long term experiment with nine treatments comprising different combination of FYM and N, P, K with Tobacco- Pearl millet rotation under ravine condition of semiarid Gujrat, no affect of FYM application (annual @ 5 tons /ha or, biannual @10 tons /ha) could be observed in terms of soil organic carbon(SOC) till thirteen year of experiment.



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During the same period, annual fluctuation of soil organic carbon could not be explained by monthly weather parameter though a part (28 %) of fluctuation was attributed by rainfall aerosivity factor (EI_{30}). After 16 years of experiment, SOC was found significantly higher under all treatments receiving FYM. More water stable macro-aggregates, lighter fraction of SOC and higher available water capacity could be observed after four year of discontinuation of experiment, under treatments received FYM. SOC attained a new equilibrium after 18 years of experiment where annual fluctuation of soil organic carbon was found related with weather fluctuation.

Organic carbon content of ravine soil is lower than the potential equilibrium value of soil organic carbon under prevailing weather condition. This gap in potential and actual SOC is potential for carbon sequestration in ravine soils. Ravine soil alone can sequester about 6 million tons of carbon (a rough estimate). Under degraded conditions like ravine, soil water and carbon conservation play significant role in reducing gestation period of reflection of organic matter application in terms of higher SOC and better soil physical condition. Higher root biomass addition under FYM application was mainly responsible for high soil organic carbon rather than bulk posting of organic matter. Longer duration crops help built-up soil organic carbon by adding more root biomass and by reducing time of high rate of carbon loss (live root for longer period). The extrapolated inference is that, the projected climate change scenario of 0.5°C to 1°C rise in seasonal temperature may not have significant impact on soil organic carbon of ravine soils as SOC is already lower than the potential equilibrium value under prevailing weather condition. The two opposing forces *viz.* increased atmospheric CO₂ and increased temperature may also negate each other in changing soil organic carbon.

Contact: Gopal Kumar (manishat@rediffmail.com), a young professional working in ARD

Publications/Websites:

SLE: plus newsletter 2009

We hope this mail finds you well! We are pleased to announce that also in summer 2009 we will be offering the SLE Plus: Berlin Training for International Development Cooperation.

On a random basis I have asked (again) a few former participants to send a few lines on how and what they are doing. You will find their contributions under section two of this newsletter. In the third section you will find links and hints about programmes and scholarship offers.



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Please help us **make** the **2009 SLE plus: Berlin Training Programme known** and **forward** the **flyer** attached to interested colleagues and friends.

Wishing you all the best

Katharina and Anja

Newsletter and short courses 2009 are posted at www.ypard.org

Welcome to the launch of the new GFAR website!

The new GFAR website is officially online! Please visit www.egfar.org to discover how easy it is to be a part of shaping the future of agricultural research for development. The web space features the new look of GFAR, while building on its role as a Global Forum for all those who care about the future of agriculture.

As a member of “e-GFAR”, you will be able to participate in Forum debates, post news items and also submit reports, papers and other information regarding ARD on the open site. Also remember not to miss out in taking advantage of GFAR’s extensive document repository, which features over 1,000 publications from GFAR and its Regional Fora dealing with important areas of focus such as both new and learned methods of research, innovation, regional research priorities and more. We look forward to connecting and working with all of the stakeholders in agriculture research for development via the new GFAR website. We invite you to take part in the fight against hunger.

After all, this is YOUR Forum. Have YOUR say.

<http://www.egfar.org/egfar/website?contentId=-1&>



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www.indiabiotech.in

www.indiabiotech.in runs under the aegis of Centre for Info Bio Technology (CIBTech). It is India's first website, which focuses on Indian life sciences and biotechnology sector, providing comprehensive and updated career oriented industrial and academic information. It is an output of 3 years of rigorous research work carried out on Indian bio/biotech industry.

In India around 30% growth in biotech sector has been observed in the last few years. Despite this spurt, students are not pursuing higher studies in biosciences or diverting to other streams sharply. At school level the number of biology students is alarmingly decreasing. Out of the several problems responsible for this, two most important one are, lack of effective career guidance and effortless availability of all round information on the biotech industry of India at one spot. On the other hand the subject is largely attracting Indian entrepreneurs. Being a subject flooded with exceptions, affected by ever changing multiple factors, entrepreneurs also want to have thorough technical and updated business information and consultancy on this subject.

We are working as a one-stop shop with a vision to eliminate these lacunas of information. In this regard the site has started providing information on all the specialized higher educational institutes and bio companies; business, research and career trend; govt. and corporate activities; business consultants and venture capitalist; financial assistances for entrepreneurs; latest job openings; available scholarship & fellowship; educational loan providers; upcoming seminars and events; latest scientific news; and free links to world-class online books, magazines & journals; all these exclusively focused on biotechnology and biosciences sectors of India.

Above information is useful for millions of schools, colleges and Universities going students, professors, scientists, entrepreneurs and persons, engaged in studies, quality research, production and business activities, in biotechnology and Life sciences, either seriously looking forward to make successful career or update their scientific information. The site is equally important for various Bio-industry policy makers. Since the USP of the site is to publish all round expert, transparent, factual information therefore it directly invites articles from persons running the bio industry, gather their views on career prospects from time to time. Currently we also carry out offline and one to one career counseling of the students. The website is proposed to carry out live online career counseling for students in the near future on regular basis, covering every corner of India.

Contact: Dr. Roshan Negi (roshansnegi@yahoo.co.uk), a young professional working in ARD



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Upcoming meeting:

Science Forum 2009

The CGIAR Science Council, The Alliance and the Global Forum on Agricultural Research (GFAR) are in partnership organizing The Science Forum 2009. The Science Forum will be co-sponsored and hosted by Wageningen University and Research Centre (WUR) in The Netherlands, on 16-17 June 2009. The Science Forum 2009 will be the first in a series of biennial science fora to be organized as part of the Science Council's drive to catalyze the mobilization of science towards CGIAR goals and objectives. The 2009 Forum will focus on innovative science and the arrangements that can help to mobilize it more effectively to address poverty alleviation and sustainable natural resource management.

Science Forum 2009 Program

The program will feature leading practitioners introducing a forward looking perspective on research needs to increase the resilience and productivity of agricultural and natural resource systems.

During the first day, discussion in parallel workshops will focus on research that is still at the advanced research stage, but has potential to deliver significant impact in 15 years and beyond; the second day will consider a 5-10 year timeframe, focusing on promising research that needs greater investment and essential partnerships to deliver impact.

The 6 Parallel workshops can be found below:

1. Resilient natural resource systems
2. The future of food: developing more nutritious diets and safer food
3. Changing the Emperor: ICTs transforming agricultural science, research and technology generation
4. Beyond the yield curve: exerting the power of genetics, genomics and synthetic biology
5. Eco-efficiencies in agro-ecosystems
6. Agriculture beyond food science for a biobased economy

Should you wish to know more about the upcoming Science Forum 2009, <http://www.scienceforum2009.nl/Home/tabid/259/Default.aspx>

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Introducing ARD organization – Technical Centre for Agricultural and Rural Cooperation (ACP-EU):

CTA is an ACP-EU institution working in the field of information for development. We operate under the ACP-EU Cotonou Agreement and our headquarters are in The Netherlands. When it was set up, in 1984, CTA was given the challenging task of improving the flow of information among stakeholders in agricultural and rural development in African, Caribbean and Pacific (ACP) countries.

Three key areas:

Providing information products and services (e.g., publications, question-and-answer services and database services). promoting the integrated use of communication channels, old and new, to improve the flow of information (e.g., e-communities, web portals, seminars, and study visits), building ACP capacity in information and communication management (ICM), mainly through training and partnerships with ACP bodies

At the core of all our activities are our partnerships with ACP national and regional bodies. We also work with a wide network of ACP-EU public and private sector bodies, as well as international organisations around the world. Our overall aim is to better serve the ever-changing information needs of all stakeholders in ACP agricultural and rural development. Through our partners we are working with these stakeholders to achieve the goal shared by the whole development community – poverty alleviation and sustainable development.

Website: <http://www.cta.int/about/index.htm>

Next issue of YPARD newsletter:

June 2009

If you have any news, event announcement, successful YP stories in ARD and any other material relevant to newsletter content, or would like to introduce your organization, kindly communicate to coordinationunit@ypard.org till 31.05.09

Feed back or more information on any content of the newsletter, write to

coordinationunit@ypard.org