



New Varieties, New Partnerships

Members of PABRA are working together to develop high yielding, marketable climbing and bush bean varieties which will help to improve productivity and livelihoods of families in rural and urban African communities. In 2006, a total of 22 new varieties with high micronutrient content, improved yield potential, better resistance to major diseases and pests, and marketable grain types were released in ECABREN countries, and a further 17 varieties were close to formal release.



PABRA's goal is to enhance the food security, income and health of farmers in Africa through research on beans. The major beneficiaries of PABRA's work are rural women, who are primarily responsible for the crop's production and post harvest handling.

Fifteen candidates were recommended for release in Kenya in December 2006 and include twelve bush and three climbing bean varieties (MAC13, MAC 34 and MAC 64). In Western DR Congo, three climbing bean varieties (Ndundu, Manseki and Mpolo) and two bush bean varieties (Sepe and Mbidi) adapted to the lowland humid tropics were proposed for release. Five bush varieties have been released for low elevation and high humidity areas including two regional varieties (Lyamungu 90 originating from Tanzania and Moore 88002 from Burundi). In Uganda, two new varieties (RWR 2075 and RWR 1946) with resistance to root rots and tolerance to low soil fertility were released. In Ethiopia, five new varieties were released in 2006. These were: STTT-165-92 (Chore), RAB 484 (Dinkesh), XAN 310 (Melka Dima), G843 (Alemaya), and STTT 165-96 (Chercher). Twelve candidates have been proposed by FOFIFA bean programme for release in Madagascar. These included four large white, red mottled and kidney grain types

with acceptable export quality, tolerance to disease and to low soil fertility.

Although South Africa is the only country in SABRN that has a breeding programme, three other countries in the network released an additional eight high yielding disease resistant varieties through sharing and exchange of germplasm; DR Congo (3), Mozambique (2), and Swaziland (3). Three new high yielding bean varieties were formally released in Swaziland (Jenny, Teebus RR-1 and CAL143). The red mottled bean CAL143 which is tolerant to low soil fertility and resistant to angular leaf spot disease, halo blight and powdery mildew was also simultaneously released in Mozambique, along with SUG131 (another disease resistant, high yielding variety which has been released in more than one country). In Southern DR Congo, three new high yielding varieties with tolerance to low soil fertility (XAN76, DOR715 and DB196) were released while South Africa released Sederberg, a high yielding variety resistant to angular leaf spot and rust.

News about bean research and development in countries in sub-Saharan Africa

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A Regional Network for West and Central Africa

PABRA has been considering the potential mechanisms and possibilities of establishing collaboration among interested countries in the CORAF/WECARD region. It is in this context



FARA and CORAF/WECARD will support information exchanges in bean research for development (R4D) in West and Central Africa, and technical backstopping and training will be provided by PABRA-CIAT. Pictured above are participants of the workshop which took place at the FARA Secretariat in Accra, Ghana in October 2006.

that PABRA, through FARA, convened a workshop in Accra, Ghana from 4-6 October 2006. The objectives of the meeting were to review the relative importance of beans and the current status of bean research in the West Africa/CORAF region; share experiences from the bean networks in East Africa (ECABREN) and in Southern Africa (SABRN); and to explore the potential for establishing partnership and collaboration within CORAF partners and between CORAF/WECARD and other African bean networks. Twenty five participants including NARS scientists and extension workers, NGO and private sector staff from West and Central Africa (WCA) countries attended the workshop.

The participants proposed a new bean network (tentatively named WECABREN - West and Central Africa Bean Research Network) through CORAF/WECARD and nominated IRAD of Cameroon to be the coordinating institution in WCA, with linkages to CORAF/WECARD and PABRA. FARA and CORAF/WECARD agreed to facilitate access to other bean research networks in the region and to support information and learning exchanges in bean research for development (R4D) across the sub-regions, with technical backstopping and training provided by PABRA-CIAT. Staff from the national programmes agreed to undertake bean surveys and to begin germplasm characterisation and exchange in the region.

Bean Impact Studies

In the period 2003-05, PABRA coordinated a set of impact studies led by NARS scientists, to gain greater insight into the effects of new bean varieties used in farming systems in DR Congo, Ethiopia, Kenya, Malawi, Rwanda, Tanzania and Uganda.

The impact studies show generally favourable results across all countries. The networks have been effective in reaching small farmers and improved varieties cover an average of 49% of the total bean area planted in the 7 countries that were studied. The majority of farmers who tested varieties have subsequently adopted them and extrapolation shows almost 35 million farmers are now sowing these improved varieties. Quantitative survey data at household level shows that use of new bean varieties has contributed substantially to both food security and financial security. In terms of consumption, adopters have generally been able to increase their bean supplies by about one third. On the contrary, there is evidence of declines in bean food production by non-adopters in both DR Congo and Rwanda.

The financial gains by new bean variety adopters have been impressive, with as much as a five-fold increase in bean income seen by farmers in eastern DR Congo. In terms of total bean income (local and new varieties) in 2003-4, improved bush varieties contributed between 38% and 72% of the bean financial total in Rwanda and DR Congo, respectively. However the consumption/income divide is not clear-cut, as follow-up studies show that bean sales often lead to purchase of food, particularly during the food gap ('hungry')

The impact studies in DR Congo, Kenya and Tanzania showed local markets as the primary source for new material. The future challenge is how to introduce new bean varieties into local systems, and hence into markets, in a more systematic way.

periods. Results of farmer wealth rankings show that bush bean (and not climbing beans) technology is wealth neutral. The effects of expanded new bean cultivation are both positive and negative.



Stakeholders Platform in Madagascar- Partnership in Practice

Partnerships within and between networks have widened and improved through more integrated frameworks such as seed systems and PM&E. Across the 18 PABRA countries, the partnership approach is being integrated into the activities of National Bean Research Programmes (NBRPs) and their partners. For instance in Madagascar a platform of bean commodity stakeholders was established two years ago and is chaired on a rotational basis. It includes the FOFIFA-NBRP, bean exporters; NGOs working in development (including SAHA a Swiss Development Cooperation (SDC) supported rural development project) and government seed services. Since its creation, the platform members have been able to share responsibilities such as training, establishment of participatory variety selection and sharing of seeds of different preferred varieties. The platform has also produced and distributed a bean seed manual in Malagasy and regularly produces a technical bean newsletter for all stakeholders.



The improved climbing beans developed and disseminated by PABRA partners yield three times more than traditional bush beans, take up less space in the field and are resistant to root rot so they are suited to densely populated highland areas where this disease is most destructive.

Increased bean use may bring women more income, but it can also create challenges of harnessing more labour, as women-controlled plots expand. Benefits from both increased consumption and sale of new bean varieties have been modest, others have been sufficient to enable farmers to expand their livelihoods. Rates of return to R&D compare favourably to other agricultural examples, being in the order of + 25% based on successes to date.

Joint External Evaluation of PABRA (JEEP)

In September 2006 a mid-term programme evaluation called the Joint External Evaluation of PABRA (JEEP) was conducted. The evaluation report was widely



Pictured above are participants at the 11th Annual PABRA Steering Committee meeting held in Nazareth, Ethiopia in March 2007.

distributed to PABRA stakeholders and was discussed at the 11th Annual PABRA Steering Committee meeting. Its objectives were twofold; first to assess the relevance, effectiveness, and efficiency of PABRA with regard to impact, outcomes and outputs (as outlined in the PABRA performance framework), and secondly to draw lessons and recommendations for the future of the programme.

The evaluation team considered PABRA to be a successful and useful programme which contributes to national poverty reduction and allows donor harmonisation. The programme demonstrates direct effects in farmers' fields and addresses development issues such as poverty reduction, gender equity, ecological, economical and social sustainability and sustainability of impact. The team recommended continuing funding of PABRA but it was advised to consider models and concepts that ensure continuity in a changing environment and to increase resources for coordination of the Southern network.

New Areas of Focus—HIV/AIDS

HIV/AIDS has seriously affected the smallholder agricultural sector in sub-Saharan Africa. Farmers lose productive family members and generational agricultural knowledge as well as income and assets. Affected families become more food insecure as their food production is reduced; they consume less and often become increasingly reliant on food aid. PABRA and its partners, in recognising the challenge that HIV/AIDS poses to smallholder farmers also recognises the need to mainstream interventions and coping strategies that impact on people living HIV/AIDS (PLWHA) within its research and development work. In 2005/2006, PABRA commissioned a study in Malawi in order to understand the dynamics of livelihood strategies and linkages with agriculture for PLWHA and to develop a strategy for integrating HIV/AIDS into PABRA and partners work in Africa.

Results demonstrated that the nature and severity of impacts depend on the initial level of vulnerability (assets and wealth, age, gender and position) of the deceased in the household. Despite the high awareness of HIV/AIDS and its causes, behaviour did not reflect this and in some communities up to 80% did not know their sero status. Households use various coping strategies ranging from seeking assistance from relatives or humanitarian organisations, hiring out their labour, reducing household food intake, to early marriage of girls and selling of household assets. Supported by various NGOs and CBOs, affected community members are taking up income generating activities, improving skills in agriculture and using labour saving technologies.

In light of these findings PABRA, in collaboration and partnership with other institutions engaged in agricultural research, is developing a strategic research and development agenda that contributes to mitigating the impacts of HIV/AIDS. Current interventions are being examined and broadened to develop an approach that includes measures that help affected households to reduce their vulnerability and build coping mechanisms, address gender issues, promote food and nutrition security while helping affected communities to improve agricultural-based livelihoods.

Training Events and Workshops

WECABREN Workshop

Twenty five participants from West and Central Africa (WCA) region attended a three day workshop in Accra, Ghana in October 2006. Participants agreed to establish a network of bean researchers in order to strengthen bean research and development activities in the region.

Innovation Africa Symposium

The Innovation Africa Symposium was held on 20th to 23rd November 2006 in Kampala, Uganda. It was jointly organised by CIAT and PROLINNOVA (Promoting Local Innovation). The Symposium brought together 140 people to reflect on current thinking on innovation systems and to share experiences. A number of papers and papers based on project results and partnerships were presented.

Website: www.innovationafrica.net

Snap bean and Biofortification Project Steering Committee Meetings

The Snap bean project and Biofortification project Steering Committee meetings took place from 12th to 15th March 2007 in Arusha, Tanzania. Thirty participants from 5 PABRA countries (DR Congo, Kenya, Rwanda, Tanzania and Uganda) representing NARS, NGOs, CBOs, farmers, private sector including seed companies took part.

PABRA Steering Committee Meeting

The 11th Annual PABRA Steering Committee meeting was held from 24th to 27th March in Nazareth, Ethiopia. The annual reports and workplans for 2007-08, as well as the JEEP Report were presented.

News

Fundraising Initiatives

SABRN actively participated in the development of two bean seed and climbing bean proposals now funded by the McKnight Foundation covering Malawi, Mozambique and Tanzania.

PABRA partners from Ethiopia, Kenya, Malawi, Rwanda and Tanzania were part of a consortium of partners that participated in the development of a proposal on "Improving Tropical Legume Productivity in Africa and South Asia" using conventional breeding

technologies, with an emphasis on drought.

New Publications

PABRA Millennium workshop proceedings

The proceedings of the Pan-Africa Bean Research Alliance (PABRA) workshop held in 2001 are now available for download on-line. Alternatively the proceedings are also available on a CD-ROM (to request a free copy contact: r.buruchara@cgiar.org). Website: www.ciat.cgiar.org/africa/pabra_procs.htm

PABRA brochure

A brochure in English, French and Portuguese which details the work of the Pan-Africa Bean Research Alliance (PABRA) is now available for download on-line. To order hard copies, contact: r.buruchara@cgiar.org. Website: www.ciat.cgiar.org/africa

CIAT in Africa Highlights

Four of the newly published Highlights in the CIAT in Africa Highlights series (No. 29, 31, 34 and 35) may be of interest to PABRA members. This series, initiated in 2003, summarises research results and policy implications from the work of CIAT and its partners in Africa and all 35 briefs can be downloaded from: www.ciat.cgiar.org/africa/newsletter

Calendar for 2007

Meetings/Workshops

FARA General Assembly. Johannesburg, South Africa. 11th-16th June 2007.

PABRA stakeholders meeting to review and develop a new PABRA R&D Framework. November 2007.

Training

Nutrition assessment and linking nutrition support with agricultural extension. May 2007.

Awareness of ERI Approaches for PABRA partners. November 2007.

Bean research methodologies and seed system approaches for WECABREN countries. October 2007.

Survey methods in seed delivery, partnerships and capacity building in Burundi, DR Congo and Madagascar. September 2007.

PABRA OUTLOOK is a regional newsletter which seeks to inform readers of the progress of the Pan-Africa Bean Research Alliance (PABRA). To obtain more information about PABRA and its publications please contact:

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