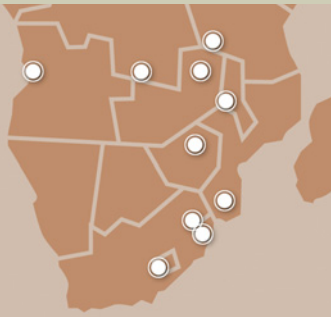
Southern Africa Bean Research Network

Benefits of Beans

- Beans are an important source of protein, iron, zinc, fibre, and complex carbohydrates, that are consumed by families in many countries of SADC. They are commonly eaten with maize, the main staple food.
- As legumes, beans improve soil fertility as well as household food supplies and incomes. They are preferred because they mature quickly and are easily intercropped with other crops.
- Beans provide food for more than 100 million people in Africa and are a significant and growing source of income for rural households, with annual African sales worth over US$580 million in 2005.



The 10 countries participating in SABRN are: Angola, DR Congo, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

For more information, visit our website at www.sabrn.org or contact:

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SABRN

The Southern Africa Bean Research Network (SABRN) is an African-owned regional bean research for development network, consisting of National Agricultural Research Systems (NARS) and their partners in ten countries in Southern Africa, where bean is considered to be an important crop.

The SABRN network operates under the framework of the Southern African Development Community's Food, Agriculture and Natural Resources Unit (SADC/FANR), which provides policy guidance and oversight. The network is part of the Pan-Africa Bean Research Alliance (PABRA) consortium, along with the Eastern and Central Africa Bean Research Network (ECABREN), CIAT, and a number of donor organisations. It brings together universities, NGOs, and the private sector, as well as government research and development (R&D) institutions, to share information and expertise in the area of improved bean-based technologies and dissemination.

The network carries out collaborative bean research-for-development in various disciplines including breeding, farmer participatory research, seed systems support, integrated pest and disease management (IPDM), integrated soil fertility management (ISFM), agronomy, plant pathology and agro-enterprise development. It facilitates the sharing of germplasm among members (contributed by NARS breeding programmes, the private sector, SABRN, and CIAT) and the development of knowledge-intensive technologies for IPDM and ISFM. It contributes to better understanding of bean seed systems, and the development of agro-enterprises. In addition, the network is working to strengthen national capacity in bean research-for-development in the SADC region through joint fundraising, infrastructure development and training at various levels.

SABRN Achievements

Regional bean variety testing and germplasm exchange

In 2006, eight improved bean varieties were released in the region. Three new high yielding bean varieties were released in Swaziland, including CAL143. CAL143, which is tolerant to low soil fertility and resistant to angular leaf spot disease, halo blight and powdery mildew, was also released in Mozambique, along with SUG 131 (another disease resistant, high yielding variety). In southern DR Congo, three new high yielding varieties with tolerance to low soil fertility were released, and South Africa released Sederberg, a high yielding variety, which is resistant to angular leaf spot and rust.

Testing of improved agronomic and post-harvest practices

IPDM technologies such as multiple intercropping, pest scouting, and timely weeding, have been selected by farmers in South Tanzania. They also controlled bean field pests through the use of selected leaf and tuber extracts (*Vernonia* spp., *Tephrosia* sp.), and livestock products such as cow urine. In Zimbabwe, the options for bean field pest control include use of a combination of *Dimethoate,* mulch and earthing-up, while in south DR Congo farmers use Eucalyptus leaf extract. Recommended options for improving soil fertility include use of Mucuna as a green manure crop in south DR Congo, use of rock phosphate and farmyard manure, and the practice of curing manure to kill weed seed, in Zimbabwe.

Farmers in Mozambique and Tanzania have developed options for managing bean bruchids. Researchers working with partners and farmers have identified use of wood ash mixed with beans in storage bins to be effective in the control of bean bruchids.

Seed system support and seed dissemination

SABRN's focus has been to strengthen local seed systems and to improve decentralised support service delivery. This approach has greatly increased farmers' access to quality seeds of improved bean varieties. To date, one hundred and twenty partners (government agencies, NGOs, seed companies and individual farmers) supported by NARS within SABRN are engaged in bean seed production and dissemination, with more than two million households reached in the period from 2003 to 2006.

Promotional materials

A range of user-friendly promotional materials have been produced (e.g. manuals, brochures and posters) in a range of languages (Chibemba, Chichewa, French, Portuguese, Siswati, and Swahili). These materials were distributed and promoted during on-farm demonstrations and field days in Lesotho, Swaziland, Tanzania and Zambia.

Capacity building

In 2006 one hundred and thirty farmers, service providers and scientists received training in a number of areas (agro-enterprise, planning, gender). To date SABRN has supported training of six NARS staff at M.Sc. and Ph.D. level.

Our Purpose

SABRN's goal is to ensure wider and increased utilisation of demand driven improved bean-based technologies that foster agricultural sustainability and productivity, add value to the bean commodity in order to improve nutrition, food security and incomes of the rural and urban poor in the Southern Africa region.

Our Aims

- select, test and promote marketable varieties of bush and climbing beans, that improve food and health and address the region's local and export markets
- test and promote improved agronomic practices for the management of soil and water for increased and lower-cost production of marketable bean varieties
- refine and distribute post-harvest technologies, to add value and expand bean markets
- package and promote effective IPDM options for the major pests and diseases of marketable bean varieties
- work with multiple partners to improve the availability of, and accessibility to, good quality seed of improved and preferred marketable bean varieties
- work with partners to avail of relevant information for increased use of improved bean-based technologies in member countries
- strengthen human and physical capacity of partners to innovate and to undertake research and development activities in their institutions

CIAT

CIDA (Canada) and SDC (Switzerland) are the main donor organisations that contribute to funding SABRN. DFID (UK) supports research in Integrated Pest Management (IPM).