Crop improvement network approach to co-develop market required products and strengthen partners' capacities in Africa

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CIMMYT, under the OneCGIAR, has initiated new crop improvement programs for dryland cereals (sorghum, pearl millet) and legumes (groundnut, chickpea, pigeon pea) to complement National Research Programs (NARS). The network involves 10 NARs in West and Central Africa (CSIR-SARI/Ghana, IAR/Nigeria, IER/Mali, INERA/Burkina Faso, INRAN/Niger, IRAD/Cameroon, ISRA/Senegal, ITRA/Togo, ITRAD/Chad, LCRI/Nigeria) and 7 in East and South Africa (ARC/Sudan, EIAR/Ethiopia, KALRO/Kenya, NARO/Uganda, TARI/Tanzania, ZARI/Zambia, NRCM/Malawi).The purpose of this initiative is to develop a truly collaborative CGIAR-NARS breeding program, where CIMMYT is playing a role of facilitator within the network. Partnership and multi-disciplinary approach are central in the designing and the implementation of these programs. Thus, consultative regional workshops were organized for each crop with major stakeholders. During these workshops, the regional and country market segments (MS) and target product profiles (TPP) were reviewed and traits per crop prioritized for regional consideration in new population development plans. In addition, national Product Design Team (PDT) meetings have been organized for over 10 different countries to review national MS and TPP and align them with country priorities and market requirements. Partners research stations facilities/equipment and breeding programs have been evaluated using the "ABI Transform Breeding Program Questionnaire", available on the Excelling in Breeding platform (http://www.excellenceinbreeding.org/toolbox/form/narssmes). The data from these assessments present the comparative advantages of each partner, constituting the basis for the assignment of network activities among partners and helping resource mobilization. Assessment results are also used to develop and implement improvement plans for partner breeding programs to align with quantitative genetics theory and practice, deploy molecular breeding, and implement regional and national field trials utilizing advanced designs. These networks build on existing ones with more emphasis on efficiency of breeding operations to increase genetic gain and are also open to private companies and other major stakeholders working on the different value chains.

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