

IN FOCUS

Seeds Without Borders: A Pathway to Climate-Resilient Agriculture in the Global South

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In the Global South, seeds are more than inputs for farming—they are symbols of resilience, knowledge, and community survival. Yet, despite shared agro-ecological zones and centuries of farmer-to-farmer exchange, national borders often slow down the flow of improved, resilient seeds. Recognising this, countries have begun to pioneer collaborative frameworks that put farmers first. The Seeds Without Borders (SWB) agreement is one such path-breaking initiative. Covering India, Bangladesh, Nepal, Bhutan, Cambodia, and Sri Lanka, SWB accelerates varietal release and cross-border movement of seeds. This allows, for example, a drought-tolerant rice variety developed in India to be planted in Cambodia, or a pest-resistant variety bred in Bangladesh to be adapted in Bhutan. Supported by the International Rice Research Institute (IRRI), SWB is now recognised as a model of “seed diplomacy” and is exploring intercontinental cooperation between Asia and Africa.

Complementing policy innovations, digital tools are transforming seed systems. The SeedCast App, first conceptualised in India, has quickly expanded to Bangladesh and Tanzania. By connecting farmers, seed producers, and dealers, it ensures reliable demand forecasting and timely supply of quality seeds. The African Seed Access Index (TASAI) strengthens seed sector performance through data-driven insights for policymakers. The World Vegetable Center (WorldVeg) promotes the exchange of indigenous vegetable seeds that enrich nutrition and

biodiversity across Asia and Africa. Ex situ conservation complements these innovations. The Millennium Seed Bank (MSB) at Kew safeguards nearly 18,000 African seed accessions, providing a global safety net of genetic diversity for climate adaptation and food security. In parallel, community-led approaches thrive in the field. The International Center for Agricultural Research in the Dry Areas (ICARDA) supports community seed banks across the dry lands of Asia and Africa, empowering farmers to conserve indigenous crops, enhance seed quality, and integrate traditional knowledge with modern science. Similar community-led seed banks in Nepal, Ethiopia, and Peru show how local networks preserve unique landraces while creating exchange systems that transcend borders.

Together, these efforts underscore that cooperation is the true currency of resilience. When the Global South acts collectively, a rice/millet/oilseed variety, a digital application, or a seed bank becomes more than a technical intervention; it becomes a bridge across geographies, cultures, and generations. In an era defined by climate uncertainty, the vision of “seeds without borders” is ultimately a call for resilience without barriers.