



Seed Policy Initiatives and Programs
Draft January 5, 2021

Program	Description	Geographies	Crops	Organizations/Donors
Access to Seeds Index¹	The Access to Seeds Index evaluates and compares seed companies according to their efforts to improve access to quality seeds of improved varieties for smallholder farmers. The Index seeks primarily to identify leadership and good practices, providing an evidence base for the discussion on where and how the seed industry can step up its efforts. In 2019, the Index presented four rankings and in-depth studies that evaluate the performance of global seed companies as well as the regional industry in South and Southeast Asia and sub-Saharan Africa. The index methodology is based on input from farmers, companies, and policymakers, which is then reviewed by dozens of experts from each region. The Index measures four categories of indicators (commitment, performance, transparency, and leadership) in each of the areas studied (governance & strategy, genetic resources, IP, R&D, Seed Production, Marketing & Sales, and Capacity Building). It aligns with the S34D Program in the market expansion & Counterfeited Seed dimensions.	Access to Seeds Index covers over 65 countries in Latin America, Africa, and South and Southeast Asia.	The Access to Seeds Index includes a wide range of crop varieties.	Published by the Access to Seeds Foundation, an independent, non-profit organization, and affiliate of the World Benchmarking Alliance.
Accelerated Varietal Improvement and Seed Delivery of Legumes in Africa (AVISA)	Project focused on boosting availability of early generation seed (EGS) and facilitating handover of research from public to private sectors. Main partner include CGIAR (ICRISAT and CIAT), NARS, and Syngenta Foundation for Sustainable Agriculture (SFSA), with New Markets Lab as policy partner. Policy interventions focused on facilitating entry of public	Nigeria and Tanzania (primary focus countries); Burkina Faso, Ghana, Mali, and Uganda	Dryland cereals (sorghum and pearl millet) and legume crops (groundnut,	BMGF

¹ <https://www.accesstoseeds.org/>.

	varieties in regional seed catalogues, particularly in Eastern and Southern Africa, and licensing agreements between public research institutions and private sector.	(secondary focus countries)	common bean, and cowpea)	
Adaptation for Smallholder Agricultural Programme (ASAP)²	Worldwide project launched in 2012 and ongoing until 2023. The project's objective is to provide knowledge and best practices to help over 6 million smallholder farmers in up to 43 countries adapt to climate change. Grants include: building small scale water-harvesting, water storage and irrigation systems for farmers; providing farmers with improved seeds that are drought tolerant; helping farmers access markets to sell their crops; planting trees on farms and introduce soil and water conservation practices; and enabling farmers to access daily and seasonal weather forecasts (e.g. using text messages) so they know when best to plant and harvest crops.	ASAP works worldwide.	ASAP includes a wide range of crop varieties.	Department for International Development of the United Kingdom (DFID). Implementing partners: International Fund for Agricultural Development (IFAD); Harewelle International Limited; Department for International Development; DAI Europe; and International Fund for Agricultural Development.
African Agricultural Technology Foundation (AATF)	AATF has a number of seed-related programs, including a program on the policy environment for agricultural innovation and technology. The Open Forum for Agricultural Biotechnology in Africa (OFBA) focuses on the exchange of biotech information between the scientific community and policymakers in Kenya, Uganda, Tanzania, Ghana, Nigeria, Burkina Faso, and Ethiopia. AATF's productivity and stress management program also aligns with the S34D Program through Market Expansion and Seed Quality Dimension.	Sub-Saharan Africa	Productivity and stress management program focused on maize, rice, cassava, cowpeas, bananas, and potatoes.	AATF's donors include the Bill and Melinda Gates Foundation (BMGF), the Rockefeller Foundation, USAID, UKAID, and the Howard G. Buffett Foundation.
AfricaYam³	The project involves a network of research organizations, the National Root Crops Research Institute (NRCRI), and the Ebonyi State University (EBSU) in Nigeria, the Crops Research Institute and the Savanna Agricultural Research Institute in Ghana, the Centre National de Recherche Agronomique (CNRA) in Côte d'Ivoire, and the Université d'Abomey-Calavi (UAC) in Benin. Research organizations from outside the region such as the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), Guadeloupe, France; the Iwate Biotechnology Research Center (IBRC), Japan; the James	Nigeria, Ghana, Côte d'Ivoire and Benin.	Yam	International Institute of Tropical Agriculture (IITA). Partners include Boyce Thompson Institute for Plant Research, CIRAD, CNRA, Council for Scientific and Industrial Research of Ghana, Ebonyi State University, IBRC, JHI, JIRCAS, NRCRI, Université d'Abomey-Calavi.

² <https://www.ifad.org/en/asap>.

³ <https://www.iita.org/iita-project/africayam-enhancing-yam-breeding-for-increased-productivity-and-improved-quality-in-west-africa/>; <https://africayam.org/>.

	Hutton Institute (JHI), UK; Japan International Research Center for Agricultural Sciences (JIRCAS), Japan; and the Boyce Thompson Institute for Plant Research (BTI), Cornell University, USA also play a significant role. The objective of the project is to develop yam breeding programs that increase yams' productivity while reducing production costs in the four countries of focus. The project seeks to develop and deploy end-user preferred varieties with higher yield, greater resistance to pests and diseases and improved quality.			
Agricultural Investment and Market Development Project (AIMDP)⁴	The AIMDP is a partnership for cooperation between IITA and the Agricultural Investment and Markets Development Project (AIMDP) to support the cassava value chain and the introduction and evaluation of new maize varieties for Cameroon. The goal of the project is to render cassava, maize and sorghum value chains competitive, accessible to farmers, sustainable and resilient to climate in Cameroon,	Cameroon	Cassava, maize, and sorghum.	IITA with the support of the World Bank.
Agricultural Technology Adoption Initiative (ATAI)⁵	The Agricultural Technology Adoption Initiative (ATAI) works through a network of researchers and staff to generate and disseminate rigorous evidence to increase farmer welfare through the broader use of productive technologies in South Asia and Sub-Saharan Africa. ATAI funds randomized evaluations and shares results to illuminate what helps and what hinders farmers' adoption of technologies and access to markets. ATAI produces policy outputs to synthesize and share results, and individual ATAI projects and their partners publish findings publicly. ATAI has developed specific projects related to the seed value chain. In Ethiopia, ATAI is carrying out an evaluation of the wheat certification process to improve crop quality. ⁶ In India, ATAI has evaluated the rice value chain in flood-prone villages to improve market access. ⁷	Focus countries for seed include Ethiopia and India.	ATAI's seeds projects focus on wheat and rice.	The ATAI is a collaboration between MIT's Abdul Latif Jameel Poverty Action Lab (J-PAL) and UC Berkeley's Center for Effective Global Action (CEGA), launched in 2009 with support from the BMGF, UK aid from the UK government, and an anonymous donor. ATAI's project in Ethiopia is conducted in partnership with Digital Green, and the project in India was developed in partnership with the International Rice Research Institute (IRRI), Balasore Social Services Society (BSSS).

⁴ <https://www.iita.org/iita-project/agricultural-investment-and-market-development-project-aimdp-iita/>; <http://projects.worldbank.org/P143417?lang=en>.

⁵ <https://www.atai-research.org/>.

⁶ <https://www.atai-research.org/project/quality-graded-wheat-value-chain-development-and-agricultural-transformation-in-ethiopia/>.

⁷ <https://www.atai-research.org/project/coordinating-seed-exchange-to-overcome-network-failures-and-encourage-adoption-of-agricultural-technologies/>.

Agricultural Transformation Agency (ATA)⁸	The ATA is a strategy and delivery-oriented government agency created to help accelerate the growth and transformation of Ethiopia's agriculture sector. ATA's mandate is focused solely on improving the livelihoods of smallholder farmers across the country. ATA implements programs focused on agribusiness and markets, production, and productivity.	Ethiopia	ATA includes a wide range of crop varieties.	ATA is an initiative of the Federal Government of Ethiopia.
Agriculture Policy Research in Africa (APRA): Economic Development, Women's Empowerment and Poverty Reduction⁹	The project launched in 2015 and is ongoing until 2021. The objective is to build an evidence base on what approaches and policies on agriculture commercialization in Africa have the greatest impact on poverty and reduction, woman's empowerment and improving food security and nutrition.	Ethiopia, Ghana, Kenya, Malawi, Mozambique, Nigeria, Tanzania, and Zimbabwe.	APRA includes a wide range of crop varieties.	Department for International Development of the United Kingdom (DFID)
AMAFINE¹⁰	AMAFINE has a wide variety of projects focused on different crops. Currently, there is an ongoing project with CORAF aimed at improving access to funding to node actors along the maize value chain in Benin, Burkina Faso and Cote d'Ivoire. AMAFINE also developed a Seed Program in Senegal, from 2014-2016. That project was focused on seeds in general and on specific crops. ¹¹	Benin, Burkina Faso and Cote d'Ivoire.	Maize	CORAF funders include the World Bank, USAID, UE, Foreign Affairs, Trade and Development Canada, Australian Aid, Direction du Développement et de la Coopération DDC (Switzerland), Ministère des Affaires Etrangères et du Développement International (France), Department for International Development, IFAD, Swedish International Development Cooperation Agency (Sida), African Development Bank, IFS, ISD, IDRC.
Amhara Seed Enterprise (ASE)¹²	ASE is a public seed enterprise that produces and supplies seeds to growers and promotes a farmer-based seed multiplication scheme.	Ethiopia	Maize, wheat, teff, barely, pea, and beans.	Alliance for a Green Revolution in Africa (AGRA)

⁸ <http://www.ata.gov.et/>.

⁹ <https://www.future-agricultures.org/apra/>.

¹⁰ <http://www.coraf.org/projects/>.

¹¹ <http://coraf.org/wp-content/uploads/2018/04/List%20of%20CORAF%20Ongoing%20Projects.pdf>

¹² <https://issdbdu.wordpress.com/seed-producers/public-seed-enterprises/>.

Building an Economically Sustainable, Integrated Seed System for Cassava in Nigeria (BASICS)¹³	BASICS is a four-year project (2016-2019) the objective of which is to strengthen the cassava seed value chain. BASICS is structured along four components: breeder seed, processor-led model, quality seed, and village seed entrepreneurs' model, all designed to raise cassava productivity in Nigeria.	Nigeria	Cassava	BASICS is funded by the BMGF, coordinated by the CGIAR Research Program on Roots, Tubers, and Bananas (RTB) and implemented by partners including National Agricultural Seed Council (NASC), National Root Crops Research Institute (NRCRI), CRS, Context Global Development, Fera Science Ltd., IITA, and CIP.
Building an Economically Sustainable Seed System in Tanzania for Cassava (BEST Cassava)¹⁴	BEST Cassava is a five-year project (2017-2021), implemented by the Mennonite Economic Development Associates (MEDA) in partnership with the Tanzanian Ministry of Agriculture, Livestock and Fisheries (MALF) and IITA. The objective of BEST Cassava is to establish a commercialized cassava seed system that is institutionalized and has the capacity for the continued development and expansion of the cassava seed system.	Tanzania	Cassava	BMGF
Cassava Agribusiness Seed Systems (CASS)¹⁵	CASS is a four-year project (2019-2022) operating in Rwanda and Burundi, to enable agribusiness development for scaling quality cassava seed systems for control of major viral diseases in cassava. Through this project, the Rwanda Agriculture and Animal Resources Development Board (RAB), Institut des Sciences Agronomiques du Burundi (ISABU), SPARK, and Wageningen University focus on developing, testing and identifying viable agribusiness models to deliver quality cassava seeds of improved varieties with preferred end- users in Burundi and Rwanda. RAB provides technical training to seed multipliers at different stages of the seed value chain on best production and disease management practices and facilitates interactions with the national cassava programs. In the course of the project, RAB and IITA will also ensure availability of clean pre-basic	Rwanda and Burundi.	Cassava	IITA in partnership with RAB and Wageningen University and SPARK. The project builds on the CBSD Control Project funded by International Fund for Agricultural Development (IFAD).

¹³ <https://www.iita.org/iita-project/building-an-economically-sustainable-integrated-seed-system-cassava/>; <http://www.rtb.cgiar.org/basics/>.

¹⁴ <https://www.iita.org/iita-project/building-an-economically-sustainable-seed-system-tanzania-cassava/>; <https://www.meda.org/market-systems-projects/576-tanzania-building-an-economically-sustainable-seed-system-for-cassava-in-tanzania-best-cassava>.

¹⁵ <https://www.iita.org/iita-project/cassava-agribusiness-seed-systems-cass/>; <https://knowledge4food.net/research-project/scaling-quality-cassava-seed-systems-rwanda-burundi/>.

	cassava seeds as the first category for the functional commercialized seeds system in Rwanda.			
CGIAR Excellence in Breeding Platform ¹⁶	Through the Excellence in Breeding Platform, the CGIAR intends to modernize breeding programs targeting the developing world for greater impact on food and nutrition security, climate change adaptation, and development. Drawing from innovations in the public and private sector, the Platform provides access to cutting-edge tools, services and best practices, application-oriented training, and practical advice.	The Platform targets developing countries.	The Platform applies to a wide range of crop varieties.	Funded by CGIAR and the BMGF. Contributors include CGIAR System Centers, Biosciences Eastern and Central Africa - International Livestock Research Institute Hub, Cornell University, Diversity Arrays Technology, Corteva, Integrated Breeding Platform, Bayer, and Queensland University.
CGIAR Research Program on Roots, Tubers and Bananas (RTB) ¹⁷	RTB is a partnership collaboration of five research centers, led by the International Potato Center (CIP). Through the research centers, RTB mobilizes complementary expertise and resources, avoids duplication of efforts, and creates synergies to increase the benefits of research for smallholder farmers, consumers, and other stakeholders. RTB aims to promote greater cooperation among an array of national and international institutions, NGOs, and stakeholder groups, while strengthening their capacities. RTB organizes its research around five linked and interactive flagship projects.	Dominican Republic, Colombia, Ecuador, Peru, Bolivia, Brazil, South Africa, Mozambique, Malawi, Tanzania, DRC Congo, Burundi, Kenya, Uganda, Ethiopia, Nigeria, Burkina Faso, Côte d'Ivoire, Ghana, Niger, Israel, India, Sri Lanka, China, Japan, Philippines, Vietnam, Laos, Cambodia, Malaysia, and Indonesia.	Banana, cassava, potato, sweet potato, yam, Andean root, and tuber crops.	CGIAR Trust Fund (contributors include ULAID, USAID, BMGF, among others). ¹⁸ CGIAR research centers Biodiversity International, the International Center for Tropical Agriculture (CIAT), IITA, CIP, and the French Agricultural Research Centre for International Development (CIRAD).
Cornell International Institute for Food, Agriculture and Development (CIIFAD) ¹⁹	The program houses several seed projects. It enables Cornell University's faculty, students and staff to engage in formulating solutions to hunger, poverty, environmental	Central America, Dominican Republic, Ghana, Indonesia, Madagascar,	The program applies to a wide range of crop varieties.	Cornell University

¹⁶ <https://excellenceinbreeding.org/>.

¹⁷ <https://www.cgiar.org/research/program-platform/roots-tubers-and-bananas/>; <http://www.rtb.cgiar.org/>.

¹⁸ <https://www.cgiar.org/funders/>.

¹⁹ <https://ip.cals.cornell.edu/about/history-international-programs/ciifad/>.

	degradation, and lack of human and institutional capacities to deal with these issues.	Philippines, and Madagascar.		
DAI - Africa Lead II ²⁰	Feed the Future's primary capacity building program in sub-Saharan Africa from 2013-19 implemented by DAI. The program's objective is to achieve Feed the Future (FtF) and Comprehensive Africa Agriculture Development Program (CAADP) goals of reduced hunger and poverty by building the capacity of champions, institutions, and stakeholders to develop, lead, and manage the structures needed for African-led agricultural transformation. The program facilitated training of more than 540 policymakers and stakeholders in Tanzania, provided ICT training to 35 new agricultural extension agents in Kenya, and developed a suite of customizable tools, known as the Institutional Architecture Assessment, Prioritization, and Planning (IA-APP) toolkit.	Sub-Saharan Africa	Africa Lead applies to a wide range of crop varieties.	USAID ²¹
DAI - Mozambique Feed the Future Agricultural Innovations (INOVA) ²²	FtF project in Mozambique started in 2017 and is ongoing until 2022. The government of Mozambique has launched an ambitious plan to grow its agricultural sector in an inclusive manner to reduce poverty and alleviate hunger throughout the country. In partnership with USAID, it launched the Feed the Future Agricultural Innovations (INOVA) project to partner with farmers, businesses, and policymakers to explore ways to improve production and increase sales of key cash crops vital to Mozambique's economy. Project activities include: conducting comprehensive, gender-responsive value chain analyses for key crops, such as sesame, soybeans, and cowpeas, to better understand market inefficiencies and address root causes of underperformance; promoting the adoption of improved seed varieties and fertilizers to increase crop yields through use of demonstration plots, agricultural extension trainings, and radio and text messaging campaigns; and collaborating with financial institutions and village savings and loan associations to provide credit lines	Mozambique	INOVA Mozambique applies to a wide range of crop varieties.	USAID ²³

²⁰ <https://www.dai.com/our-work/projects/africa-africa-lead-ii>.

²¹ <https://www.accessseeds.org/coordination-index-critical-new-usaid-20m-program-seed-system-support/>.

²² <https://www.dai.com/our-work/projects/mozambique-feed-the-future-agricultural-innovations-inova-project-description>.

²³ <https://www.accessseeds.org/coordination-index-critical-new-usaid-20m-program-seed-system-support/>.

	targeted at enabling smallholder farmers to invest in improved seeds, fertilizer, and other agricultural inputs.			
DAI - Mozambique Innovation for Agribusiness (InovAgro I, II, III)²⁴	The project launched in 2012 and is ongoing until 2020. InovAgro promotes the development of inclusive and sustainable market systems, also known as Making Markets Work for the Poor. InovAgro III builds on the program's previous phases by further strengthening the capacity of seed companies and input suppliers to provide extension services to small farmers across five target value chains. The results of the project at phase III include assisting 5,000 new farmers to increase their incomes, bringing the program's total to 20,000 farmers helped; helping local traders further improve efficiency of transactions, leading to a 100 percent increase in purchases from farmers compared to phase II levels, valued at \$3.8 million, and; adding 8,000 new members to village saving groups and promoted a 500 percent increase in total savings for seeds and inputs from 2017 to 2018.	Mozambique	InovAgro I, II, III apply to a wide range of crop varieties.	Swiss Agency for Economic Development
Equator Seeds Limited (ESL)²⁵	Start-up seed company that transfers seed technologies developed through public or private research into the hands of farmers and is engaged in seed production, processing, and marketing of seed varieties.	Uganda	ESL includes a wide range of crop varieties.	AGRA
Feed the Future Mozambique Improved Seeds for Better Agriculture (SEMEAR)²⁶	SEMEAR is a consortium led by IITA in partnership with CIAT, ICRISAT, and IIAM. SEMEAR is a five-year project (2015-2020) with the objective of building a private-public partnership to disseminate improved legume seeds and complementary crop management practices already developed in Mozambique through the Platform for Agricultural Research and Technology Innovation project (PARTI). Overall, the project seeks to increase the adoption of improved technologies, incomes, and food security of smallholder farmers in different regions of Mozambique.	Mozambique	Common beans, cowpea, groundnut, pigeon pea, sesame, and soybean.	USAID under the Feed the Future program.

²⁴ <https://www.dai.com/our-work/projects/mozambique-innovation-agribusiness-inovagro>.

²⁵ <https://www.equatorseeds.com/>.

²⁶ <https://www.iita.org/iita-project/feed-future-mozambique-improve-seeds-better-agriculture/>; <https://ciat.cgiar.org/ciat-projects/feed-the-future-mozambique-improved-seeds-for-better-agriculture-semear/>; <https://www.agrilinks.org/users/ftf-mz-semear>.

Ghana CORAF ²⁷	Through this project, CORAF's objective is to strengthen agricultural research, extension, and advisory services and stakeholder capacities, as well as establish and coordinate communities of practice in agricultural research and development.	Ghana	New cassava and sweet potato.	CORAF in coordination with regional and national actors. CORAF funders include the World Bank, USAID, UE, Foreign Affairs, Trade and Development Canada, Australian Aid, Direction du Développement et de la Coopération DDC (Switzerland), Ministère des Affaires Etrangères et du Développement International (France), Department for International Development, IFAD, Sida, African Development Bank, IFS, ISD, IDRC.
Integrated Seed Sector Development (ISSD Africa) ²⁸	ISSD Africa aims to establish an African-embedded structure and network of experts, seed programs, and associated organizations in the public and private sectors to support the development of a market-oriented, pluralistic, vibrant, and dynamic seed sector in Africa for providing both female and male smallholder farmers access to quality seed of superior varieties (both improved and local varieties most preferred by farmers). The priority themes of the project include common challenges to promoting entrepreneurship in seed value chain and access to varieties in the public domain. Among other goals, ISSA Africa aims to address diverse needs and realities of farmers in seed sector development strategies and programs, create an enabling structure and favorable environment for experimenting, documenting, learning, and enhancing collaboration; and creating an Africa-wide learning and innovation network.	Africa	ISSD Africa applies to a wide range of crop varieties.	Multi-donor collaboration coordinated by the Centre for Development Innovation (CDI), Wageningen UR and at Royal Tropical Institute (KIT)

²⁷ <http://www.coraf.org/wp-content/uploads/2019/03/StrategicPlan.pdf>.

²⁸ <https://issd.org/>.

International Fund for Agricultural Development (IFAD) ²⁹	IFAD has a number of agricultural development projects, primarily focused on food production. IFAD finances programs and projects specifically designed to introduce, expand or improve food production systems and to strengthen related policies and institutions. Has approved programs to start in Rwanda, Sierra Leone, Liberia, Benin, Egypt, and Dominican Republic on various subjects including agricultural value chain development, rural productive family's inclusion into the market, and resiliency.	Worldwide	IFAD projects include a wide range of crop varieties.	IFAD projects are funded by various companies, foundations, governments, multilateral organizations, NGOs, producer organizations, research and academic institutions, and UN Agencies.
International Seed Federation (ISF) ³⁰	Numerous projects to represent member interests at a global level (OECD, UPOV, IPPC, FAO, CBD, WIPO); facilitate the free movement of seed within a framework of fair and science-based regulations while serving the interests of farmers, growers, industry and consumers; promote the establishment and protection of intellectual property rights for seeds, plant varieties and associated technologies; publish rules for trading seed and licensing technology to clarify and standardize contractual relations between buyers and sellers at an international level; provide for the settlement of disputes through mediation, conciliation and/or arbitration; foster cooperation and collaboration through its calendar of events, enabling seed industry stakeholders to identify issues, stimulate strategic thinking and accelerate the adoption of common positions; and work in partnership with organizations responsible for international treaties, conventions and agreements and those that shape the policies affecting the global seed industry.	Worldwide	ISF projects include a wide range of crop varieties.	ISF Members
International Seed Testing Association (ISTA) ³¹	Numerous projects focused on internationally-agreed rules for seed sampling and testing, accreditation of laboratories, promotion of research, international seed analysis certificates and training, and dissemination of knowledge in seed science and technology. Diverse collaboration of seed scientists and analysts from universities, research centers, and seed testing laboratories around the world that facilitates	Worldwide	ISTA's work includes a wide range of crop varieties.	Independent organization supported by the non-profit cooperation of experienced seed scientists and analysts.

²⁹ <https://www.ifad.org/en/web/operations/projects-and-programmes?mode=search>.

³⁰ <https://www.worldseed.org/>.

³¹ <https://www.seedtest.org/en/about-ista-content---1--1011.html>.

	seed trading nationally and internationally and contributes to food security.			
Kenya Potato Value Chain³² (Associated CGIAR Research Program/Platform: Roots, Tubers and Bananas; Excellence in Breeding Platform)	The project introduced innovative technology developed by CIP and the Vietnamese Research Center for Experimental Biology to ramp up production of high-quality seed.	Kenya	Potato	CGIAR System donors through the CGIAR Research Program on Roots, Tubers and Bananas; Deutsche Gesellschaft für Internationale Zusammenarbeit; Federal Ministry for Economic Cooperation and Development, Germany; Syngenta Foundation for Sustainable Agriculture; and USAID.
MAIZE³³	MAIZE is an international collaboration between more than 300 partners that seeks to mobilize global resources in maize research and development to achieve a greater strategic impact on maize-based farming systems in Africa, South Asia and Latin America. The research program was launched by CGIAR in 2012. MAIZE focuses on the needs of the poor and disadvantaged in the maize agri-food systems in low- and middle-income countries, especially in sub-Saharan Africa, Latin America and Asia. MAIZE combines the strength of farming communities, international and local public and private sector partners, policy makers and development organizations to ensure that CGIAR's maize research-related contribution effectively contributes to meeting food demands, building sustainable farming systems, increasing sustainable production, reducing poverty and malnutrition, building competitiveness, granting farmers access to cutting-edge technologies, enhancing efficiency and impact of the system.	Flagship Projects are implemented in Asia and Central and West Asia, Latin America and the Caribbean, East and Southern Africa, and West and Central Africa.	Maize	Led by the International Maize and Wheat Improvement Center (CIMMYT), with IITA as its main CGIAR partner, along with CIAT, ICRISAT, IFPRI, IITA, ILRI, IRRI, and World Agroforestry Center. Global partners are USAID, BMGF, Syngenta Foundation for Sustainable Agriculture, Secretariat of Agriculture and Rural Development of Mexico, Australian Center for International Agricultural Research, AATF, Canadian International Development Agency, and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

³² <https://cipotato.org/>, CIP Annual Report 2018. Towards food system transformation available at <https://cgspace.cgiar.org/handle/10568/103463>.

³³ <https://maize.org/>; <https://www.cgiar.org/research/program-platform/maize/>; <https://www.iita.org/iita-project/cgiar-research-program-crp-3-2-maize-global-alliance-for-improving-food-security-and-the-livelihoods-of-the-resource-poor-in-the-developing-world/>; <https://cgspace.cgiar.org/bitstream/handle/10568/89825/MAIZE-Web.pdf?sequence=4&isAllowed=y>.

<p>MasAgro³⁴</p>	<p>The project promotes the sustainable intensification of maize and wheat production in Mexico. MasAgro develops capacities and research activities aimed at raising maize and wheat yields stability and profitability in Mexico. The program, through different components, also seeks to increase farmer income and production systems sustainability by implementing collaborative research initiatives, developing and promoting the use of improved seed, sustainable technologies and farming practices.</p> <p>MasAgro Farmer, a component of CIMMYT's MasAgro project, develops a sustainable intensification strategy for maize, wheat and similar grains by building hubs based on research platforms, demonstration modules, and extension areas where sustainable farming practices and technologies are tested, improved, and adapted.³⁵</p> <p>MasAgro Wheat, another component of MasAgro, conducts research on wheat genetics and physiology to improve plant structure, increase the resilience and disease resistance of wheat, and improve its yield potential in Mexico and abroad.³⁶ Its goal is to raise wheat yields.</p>	<p>Mexico</p>	<p>Wheat and maize.</p>	<p>Mexico's Secretariat of Agriculture and Rural Development (SADER) and Inter-American Development Bank (IDB) in partnership with CIMMYT.</p>
<p>Maslaha Seeds Limited³⁷</p>	<p>Collaborates with research institutes to provide clean seeds and training to various seed companies promote seed entrepreneurship.</p>	<p>Nigeria</p>	<p>Maize, rice, millet, sorghum, soybean, and cowpea.</p>	<p>AGRA</p>
<p>Micro Reforms for African Agribusinesses (MIRA)³⁸</p>	<p>AGRA's MIRA Program provides governments with local and international technical assistance for identifying, prioritizing, and reforming agricultural regulations that deter or limit investment in agribusinesses operating in smallholder value chains. Reform of seed law and regulation have been a priority of the MIRA program.</p>	<p>Ghana, Tanzania, Ethiopia, Burkina Faso, and Nigeria.</p>	<p>Local staple food value chains.</p>	<p>BMGF</p>

³⁴ <https://www.cimmyt.org/projects/masagro/>; <https://masagro.mx/en/>.

³⁵ <https://www.cimmyt.org/projects/masagro-farmer/>, <https://masagro.mx/en/>.

³⁶ <https://www.cimmyt.org/projects/masagro-wheat/>; <https://masagro.mx/en/>.

³⁷ <https://agra.org/program-development-and-innovation/seeds/>.

³⁸ <http://www.ghana.gov.gh/index.php/media-center/news/1136-micro-reforms-for-african-agribusiness-project-launched>; <https://agra.org/program-development-and-innovation/micro-reforms-for-african-agribusiness/>.

Mozambique Agro Dealer Development Program ³⁹	The program was developed by AgriMerc ODS, a local Organization, through a grant from AGRA for a period of 3 years (2013 to 2016) to implement the program in Manica, Tete, Sofala, and Zambezia – (MADD II). The three-year project contributed to the intensification of agriculture in 16 districts in the Beira Corridor in central Mozambique by increasing the number and value of agribusiness transactions and increasing smallholder crop production and income from sale of surplus production.	Mozambique	The program applies to a wide range of crop varieties.	AGRA
Nepal Seed and Fertilizer Project (NSAF) ⁴⁰	NSAF project facilitates sustainable increases in Nepal’s national crop productivity, income and household-level food and nutrition security, across 20 districts. NSAF promotes the use of improved seeds and integrated soil fertility management technologies along with effective and efficient extension, including the use of digital and information and communications technologies. The project aims at increasing availability of technologies to improve productivity in cauliflower, lentils, maize, onions, rice and tomatoes. It also aims at building competitive seed and fertilizer systems that significantly expand seed production, marketing and distribution by enhancing the capacity of public and private sectors in seed and fertilizer value chains.	Nepal	Cauliflower, lentils, maize, onions, rice, and tomatoes.	Center for Environmental and Agricultural Policy Research, Extension and Development (CEAPRED), International Fertilizer Development Center (IFDC), Nepal Agricultural Research Council (NARC), Nepal’s Ministry of Agriculture and Livestock Development, Quantitative Engineering Design (QED), USAID.
OECD Schemes for the Varietal Certification of Seed ⁴¹	The OECD Schemes for the Varietal Certification of Seed promote the use of certified agriculture seed that is of consistently high quality. These seeds are produced – and officially controlled – according to a set of harmonized procedures put in place in the 61 participating countries. With membership open to OECD, UN, and WTO countries, the aim is to stimulate the production and use of high-quality seeds. There are eight schemes, each defined according to a group of species of cultivated plants – more than 200 agricultural and vegetable species in all. By ensuring consistently high standards, the OECD Seed Schemes contribute to its members’ evolving agriculture and trade	OECD Members (61 participating countries).	OECD Schemes apply to a wide range of crop varieties.	OECD

³⁹ <https://www.afap-partnership.org/hub-agro-dealer-model-implemented-mozambique/>.

⁴⁰ <https://www.cimmyt.org/projects/nepal-seed-and-fertilizer-project-nsaf/>.

⁴¹ <http://www.oecd.org/agriculture/seeds/>.

	<p>policies. The OECD Schemes for the Varietal Certification or the Control of Seed Moving in International Trade include Rules and Regulations applicable to eight groups of species that define the technical standards developed by seed certification specialists in participating countries in close co-operation with other international seed-related organizations, such as FAO, ISF, ISTA and UPOV. Many regional seed organizations also participate in the development of technical standards.</p>			
Oromia Seed Enterprise⁴²	<p>Autonomous parastatal organization that provides quality seeds of maize, wheat and chickpea. Oromia Seed Enterprise is the base of ISSD Oromia South and West Unit, responsible for the implementation of programs in south and western Oromia.⁴³</p>	Ethiopia	Maize, wheat, and chickpea.	AGRA
Partnership for Inclusive Agricultural Transformation in Africa (PIATA)⁴⁴	<p>Through AGRA's PIATA program, partners support African countries to deliver on the Malabo Declaration commitments and the Sustainable Development Goals (SDGs) agreed to by African heads of state and governments. Under PIATA, the partners commit to a shared results framework aligned to CAADP and with country operations aligned to the country's own overall vision and national agriculture planning. FtF brings together partners from across various sectors and the U.S. Government to use each of PIATA's skills and insights in a targeted, coordinated way to help countries that are ripe for transformation change the way their food systems work. The partnership actively seeks to align efforts with development partners at country and regional level.</p>	Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Nigeria, Rwanda, Tanzania, and Uganda.	PIATA applies to a wide range of crop varieties.	PIATA's foundation members include the BMGF, the Rockefeller Foundation and USAID with AGRA as the implementing partner. The UK Department for International Development (DFID) recently joined the partnership and brings greater focus on regional food markets and food trade.
Program for Africa's Seed Systems (PASS)⁴⁵	<p>PASS was AGRA's flagship seeds program and aimed to give African farmers a wider range of seed choices—including access to seed of highly productive crop varieties known as hybrids, which have revolutionized food production elsewhere in the world. It had four sub-programs: Education for African Crop Improvement (EACI); Fund for the Improvement and Adoption of African Crops (FIAAC); Seed</p>	Grants were awarded in Tanzania (13 grants), Ghana (10), Kenya (10), Uganda (9), United States (8), Ethiopia (7), Mozambique (7),	Maize was the main focus crop under the grants, but grants were also awarded to programs	AGRA, with the support of BMGF and the Rockefeller Foundation.

⁴² <https://issdethiopia.org/category/oromia-south-west/>.

⁴³ <http://www.oromiaseedenterprise.com/projects.html>

⁴⁴ <https://agra.org/piata/>.

⁴⁵ <https://agra.org/program-development-and-innovation/developing-africas-seed-systems/>.

	Production for Africa (SEPA), and the Agro-dealer Development Program (ADP). PASS aligned with the S34D Program through Market Expansion and Seed Quality Dimension. PASS ran from 2006 to 2017, and the final implementation of the Scaling Seeds and Technologies Partnership (SSTP) was completed in 2018. ⁴⁶	Zimbabwe (7), Malawi (6), Nigeria (6), Zambia (5), Mali (4), Rwanda (4), Niger (3), Bangladesh (2), Burkina Faso (2), Sierra Leone (2), South Africa (2) and one grant each to organizations in India, Liberia, Mauritius, and the United Kingdom.	focused on Cassava (8 grants), Groundnut (6), Beans (4), Rice (3), Millet (2), Soybean (2), Banana (1), Cowpea (1), Pigeon Pea (1), Sesame (1), Sorghum (1), and Sweet potato (1).	
Programme of Support to Agriculture in Rwanda⁴⁷	The programme launched in 2014 and is ongoing until 2019 with the objective of sustainably increasing the agricultural productivity of poor farmers by transforming Rwandan agriculture from a subsistence-based to a more commercial-based sector that accelerates agricultural growth. The programme is mean to result in increased agricultural productivity, food security, and income improvement among poor households and contribute to eradicating extreme poverty and hunger while promoting gender equality and empowering women.	Rwanda	The program applies to a wide range of crop varieties.	Department for International Development of the United Kingdom (DFID) through UK aid. Implementing partners: World Food Programme (WFP); Department for International Development; Coffey International Development; Oxford Policy Management; Adam Smith International; DAI Europe; International Development Association; International Bank for Reconstruction and Development (IBRD); and International Development Association.
RICE⁴⁸	RICE is a CGIAR research program on rice agri-food systems (RICE, 2017-2022) and is the second phase of Global Rice Science Partnership 2011-2016. RICE's objective is to facilitate the transition of smallholder rice farmers to modern	Flagship Projects are implemented worldwide.	Rice	RICE is led by CGIAR—the International Rice Research Institute, Africa Rice Center (AfricaRice), CIAT, Centre de

⁴⁶ <https://agra.org/terms-of-reference-for-the-end-of-program-evaluation-for-agra-africas-seed-systems-program/>

⁴⁷ <https://devtracker.dfid.gov.uk/projects/GB-1-204456>.

⁴⁸ <http://ricecrp.org/>.

	<p>business entrepreneurship by exploiting opportunities offered by market diversification and the emergence of a stronger consumer demand for quality and nutritious rice products. It also aims at assisting poor farmers in hinterlands and less-endowed environments to cope with extreme stresses and the effects of climate change and other shocks. RICE pursues its goals through five flagship projects: accelerating impact and equity, upgrading rice value chains, sustainable farming systems, Global Rice Array, and new rice varieties.</p>			<p>Coopération Internationale en Recherche Agronomique pour le Développement (Cirad), L’Institut de Recherche pour le Développement (IRD), and JIRCAS. Projects are funded by different donors, including the Department of Agriculture in the Philippines, the BMGF and UK Aid among others.</p>
<p>Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture (GPA)⁴⁹</p>	<p>The Second GPA reaffirms the commitment of governments to the promotion of plant genetic resources as an essential component for food security through sustainable agriculture in the face of climate change. It aims to (1) promote cost efficient and effective global efforts to conserve and sustainably use of Plant Genetic Resources for Agriculture (PGRFA), (2) link conservation with use for a greater use of plant germplasm, (3) strengthen crop improvement and seed systems to foster economic development, (4) create capacities, strengthen national programmes and widen partnerships for PGRFA management and (5) strengthen implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture.</p>	Worldwide	GPA applies to a wide range of crop varieties.	FAO Tropical Agricultural Research and Higher Education Center ⁵⁰ - UN Agency.
<p>SeeD⁵¹</p>	<p>SeeD initiative works to unlock and utilize novel genetic diversity held in genebanks to accelerate the development of maize and wheat varieties to meet the demands of a growing population in a changing climate. By characterizing the genetic makeup of maize and wheat collections, SeeD has generated “fingerprints” describing the diversity of two of humankind’s major food crops. To multiply the impacts of these results, SeeD has created a “genetic resources utilization platform” for breeders and researchers, made up of publicly available data and software tools.</p>	Mexico	Maize and wheat.	UK’s Biotechnology and Biological Sciences Research Council (BBSRC) supports the computation infrastructure and data analysis. MasAgro Biodiversidad, a joint initiative of CIMMYT and the Mexican Ministry of Agriculture (SAGARPA) through the MasAgro (Sustainable

⁴⁹ <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/seeds-pgr/gpa/en/>.

⁵⁰ <http://www.fao.org/agriculture/crops/core-themes/theme/seeds-pgr/gpa/en/>.

⁵¹ <https://www.cimmyt.org/projects/seeds-of-discovery-seeD/>; <https://seedsofdiscovery.org/>.

				Modernization of Traditional Agriculture) project; the CGIAR Research Programs on Maize (MAIZE CRP) and Wheat (WHEAT CRP) jointly work in the initiative.
Seed Programs International (SPI)⁵²	Multiple projects to provide quality seed, expertise, and training to humanitarian organizations working around the world to alleviate hunger and poverty. SPI has partnered with over 200 organizations among 75 countries around the world, including Peace Corps, NGOs, Rotary International, Rise Against Hunger, Watson Children’s Foundation, and others. ⁵³ SPI maintains a relationship with seed companies, receives and stores donated seeds (unmarketable seeds or voluntary donations) and distributes the packed seeds through its partners to alleviate hunger and malnutrition. To guarantee good quality and proper distribution of the seeds, SPI uses a six-step approach, which includes (1) acquisition of the seeds from leading seed companies, (2) selection of the seeds according to the destination country to ensure its suitability, (3) seed testing through private accredited laboratories, (4) packaging in multiple languages, with instructions, and in small batches to facilitate transportation and preservation, (5) shipping to SPI partners, and handling of import and testing documentation, (6) oversight and ongoing support to organizations and farmers. Successful cases of SPI seed distribution include Madagascar, Guatemala, and Haiti.	Worldwide	SPI catalogue has a wide range of crop varieties.	SPI receives donations from seed companies.
Seed System⁵⁴	Seed System is a collaboration among diverse national and international organizations aiming to improve seed security in high stress and vulnerable areas across the world and improve intervention practices, assessment, and strategic systems around seed system response and seed system development. In particular, Seed System offers practical	Burkina Faso, Burundi, DR Congo, Ethiopia, Haiti, Kenya, Madagascar, Malawi, Mali, Sierra Leone, South Sudan,	Seed System applies to a wide range of crop varieties.	CRS, CIAT, PABRA, and USAID

⁵² [https://seedprograms.org/..](https://seedprograms.org/)

⁵³ <https://seedprograms.org/how-we-work/partner-organizations>.

⁵⁴ [https://seedsystem.org/.](https://seedsystem.org/)

	<p>'how- to' advice to guide immediate humanitarian response, starting step-by-step with the assessment—the seed system security assessment (SSSA)—and then moving to key responses—bolstering markets, promoting resilience and putting farmers in the decision-making chair. It also focuses on interventions for chronic stress regions, areas that are environmentally harsh and/or lacking development institutions and innovations. To this end, it provides practice briefs, system assessment tools, diagnostic manuals, background reviews, and policy guides. Its field assessments around the world include Burundi, Ethiopia, Kenya, South Sudan, Zambia, and Zimbabwe, among others.</p>	Syria, Timor-Leste, Zambia, and Zimbabwe		
Seed System Group⁵⁵	<p>Seed System Group (SSG) is an Africa-based nonprofit organization led by experts in crop breeding. Its main purpose is to extend the recent advances in seeds systems development to farmers. SSG is partnering with target countries to introduce and test crop varieties, provide training in seed production and business management to local companies, and connect seed producers to local agrodealers.</p>	Angola, Benin, Burundi, Cameroon, Chad, Côte d'Ivoire, DRC, Eritrea, Guinea, Madagascar, Niger, Senegal, Sierra Leone, Togo, and Republic of Congo.	Wide range of crop varieties.	AGRA and the Rockefeller Foundation.
Seeds2B⁵⁶	<p>Seeds2B is a demand-led match-making initiative for technology transfer, and ultimately capacity building, for local seed production led by the Syngenta Foundation for Sustainable Agriculture (SFSA). The initiative aims to provide a wider choice of quality seeds to farmers. In partnership with AATF under the USAID Partnership for Seed Technology Transfer in Africa (PASTTA) program (see below), Seeds2B is being scaled to include more countries and crops. Seeds2B's scope of services include finding varieties that meet market needs, carrying out seeds trials to assess performance and market acceptance, assisting organizations with seeds registration, B2B assistance, building partnerships for licensing agreements and IPR management, advising on reduction of risks and portfolio expansion, helping to acquire additional capital, and M&E. Through Seeds2B Connect, the</p>	Africa	Seeds2B applies to a wide range of local crop varieties.	Syngenta Foundation for Sustainable Agriculture (SFSA), funded by USAID. ⁵⁷

⁵⁵ <https://seedssystemsgroup.org/company-overview/>

⁵⁶ <https://www.syngentafoundation.org/seeds2b>.

⁵⁷ <https://www.syngentafoundation.org/seeds2b>; www.seeds2b.org.

	<p>initiative facilitates the introduction of quality seeds to African businesses in emerging markets. Seeds2B also includes a legal and regulatory component, led by SFSA’s partner organization the New Markets Lab (NML), which includes regulatory capacity building, comparative case studies, and “test cases” to track the process of regional variety registration. Seeds2B has conducted trials in Mali, Senegal, Kenya, Malawi, and Zimbabwe for variety performance. Through Seeds2B Build, the initiative can also facilitate the local production of seeds.</p>			
Senegal CORAF ⁵⁸	<p>Through this project, the Senegalese National Agricultural Research Center with the support of the West Africa Agriculture Productivity Program has generated resilient groundnut varieties that can adapt to the current climate. CORAF’s objectives are for Senegal to adopt policies and strategies to drive increased investments in agriculture and build functional partnerships to accelerate economic growth, reduce poverty, and improve food and nutrition security</p>	Senegal	The project focuses on a wide range of crop varieties.	CORAF in partnership with ECOWAS, ECCAS and CADDP. CORAF funders include the World Bank, USAID, UE, Foreign Affairs, Trade and Development Canada, Australian Aid, Direction du Développement et de la Coopération DDC (Switzerland), Ministère des Affaires Etrangères et du Développement International (France), Department for International Development, IFAD, Sida, African Development Bank, IFS, ISD, IDRC. ⁵⁹
Sustainable Intensification of Maize-Legume Systems for Food Security in Eastern and Southern Africa (SIMLESA) ⁶⁰	<p>SIMLESA program was launched in 2010 and aims to improve maize and legume productivity by 30 percent and to reduce the expected downside yield risk by 30 percent on approximately 650,000 farm households by 2023. The program has also laid the foundation for developing conservation agriculture based sustainable intensification options, including integration of improved maize and legume varieties identified for their compatibility with CA-based</p>	Ethiopia, Kenya, Malawi, Mozambique, and Tanzania.	Maize and Legume.	Australian Centre for International Agricultural Research (ACIAR) in partnership with CIMMYT.

⁵⁸ <http://www.coraf.org/wp-content/uploads/2019/03/StrategicPlan.pdf>.

⁵⁹ <http://www.coraf.org/our-funding/>.

⁶⁰ <https://www.cimmyt.org/projects/sustainable-intensification-of-maize-legume-systems-for-food-security-in-eastern-and-southern-africa-simlesa/>; <https://simlesa.cimmyt.org/>.

	practices; promoting technology adoption by both female and male farmers; capacity building for national agricultural research systems of partner countries; creating enhanced partnerships and collaboration with established innovation platforms for coordinated scaling-out of SIMLESA-generated options and practices.			
Sweet potato Agri-food Systems Program⁶¹	Through this program, CIP and its partners developed and disseminated dozens of biofortified, vitamin A-rich varieties of sweet potato in Africa and Asia, helping to raise the nutritional status and, to a lesser extent, the incomes of more than five million households. CIP also works with large food processors and fresh root traders in Africa, facilitating the development of new value chains for sweet potato and creating income-generating opportunities including for women and young people.	Africa and Asia.	Sweet potato	CGIAR Trust Fund contributors. ⁶²
Technologies for African Agricultural Transformation (TAAT)	Part of African Development Bank's "Feed Africa" strategy to transform agriculture and scale up agribusiness opportunity throughout 18 key value chains. TAAT includes a number of projects focused on knowledge and innovation in support of Feed Africa's strategic goals of increasing crop and animal productivity, value addition, infrastructure investment, enabling agribusiness environment, and catalyzation of capital. Includes CGIAR Centres, NARS, Forum for Agricultural Research in Africa (FARA), AATF, and sub-regional organizations.	Sub-Saharan Africa.	Range of crop varieties.	African Development Bank.
The African Seed Access Index (TASAI)⁶³	TASAI's objective is to promote the creation and maintenance of enabling environments for competitive seed systems serving smallholder farmers. TASAI has developed a set of indicators to measure, track, and compare factors affecting the enabling environment for seed markets across African countries. The intended outcome of this index is improved access to locally adapted, affordable, and high-quality seed of improved varieties by smallholder farmers in Sub-Saharan Africa.	Sub-Saharan Africa	TASAI focuses on a wide range of local varieties.	Collaborative initiative between Cornell International Institute for Food, Agriculture, and Development (CIIFAD) and Market Matters Inc. with support from various donors.

⁶¹ <https://cipotato.org/programs/sweetpotato-agri-food-systems-program/>.

⁶² <https://cipotato.org/about/finances/>.

⁶³ <https://tasai.org>.

The Feed the Future Southern Africa Seed Trade Project (Seed Trade Project) ⁶⁴	The FtF Seed Trade Project is designed to increase the availability of high-quality seed of improved varieties to farmers in the Southern Africa Development Community (SADC) to improve yields and increase food security and nutrition. The Seed Trade Project, administered by DAI, provides diverse assistance to implement the SADC Harmonized Seed Regulations (HSR) to foster seed trade across the region and integrate smaller and isolated national seed markets into a larger, more efficient SADC-wide seed market. The Seed Trade Project also helps policymakers put in place the mechanisms needed to improve access to high-quality, affordable seed—allowing smallholder farmers and large private sector producers to grow more food at cheaper prices for consumers across the region. The Seed Trade Project is located in Gaborone, Botswana, Pretoria, South Africa, and Lusaka, Zambia, the Seed Trade Project supports activities in three Feed the Future focus countries: Malawi, Mozambique, and Zambia; and is also active in Zimbabwe, an aligned Feed the Future country. The Seed Trade Project provides targeted technical assistance to facilitate implementation of SADC’s Harmonized Seed Regulations (HSR).	Malawi, Mozambique, and Zambia; also active in Zimbabwe.	The project focuses on a wide range of crop varieties.	USAID ⁶⁵
The Future of Agriculture in Rwanda (FAiR) ⁶⁶	The program launched in 2019 and is ongoing until 2021. Its objective is to sustainably increase agricultural productivity and benefit poor farming households, through greater commercialization of Rwandan agriculture. This will lead to an enhanced contribution of agriculture to economic growth, food security and poverty reduction. Implementing partners: Oxford Policy Management and International Bank for Reconstruction and Development (IBRD).	Rwanda	The program focuses on a wide range of crop varieties.	Department for International Development of the United Kingdom (DFID)
The World Seed Partnership (WSP) ⁶⁷	The WSP promotes access to new varieties and high-quality seed that supports sustainable agricultural development. The WSP provides countries with guidance and expertise to put in	Worldwide	WSP focuses on a wide range of local crop varieties.	The initiative was established by ISF, ISTA, OECD and UPOV.

⁶⁴ <https://www.dai.com/our-work/projects/southern-africa-feed-future-southern-africa-seed-trade-project>.

⁶⁵ <https://www.accessseeds.org/coordination-index-critical-new-usaid-20m-program-seed-system-support/>.

⁶⁶ <https://www.gov.uk/world/organisations/dfid-rwanda>.

⁶⁷ <http://www.worldseedpartnership.org/>.

	place the relevant systems thereby enabling farmers to have access to high quality seed and new plant varieties.			
USAID Partnership for Seed Technology Transfer in Africa (PASTTA) ⁶⁸	PASTTA aims to enable the transfer of best-bet seed-based technologies. It addresses some of the main bottlenecks in the market to improve: (i) the promotion and dissemination of new varieties, in particular those selected by the public sector, (ii) the involvement of the seed private sector in multiplication, commercial development, and dissemination of seed varieties, (iii) the demand for new varieties, and (iv) the harmonization of seed regulations.	Kenya, Malawi, Mali, Senegal, and Uganda.	PASTTA focuses on a range of crop varieties, including beans, maize, soybean, pearl millet, groundnut, sorghum, cowpea, pigeon pea, vegetables, and potato.	USAID-funded partnership among SFSA Seeds2B, AATF, and NML. ⁶⁹
Wagenigen Seed Centre ⁷⁰ (WSC)	WSC contributes to capacity-building in the seed sector of several countries in the world through education, research and project execution. It partners with other universities, national and international research institutes, NGOs, and other public and private stakeholders through a range of projects.	Worldwide	WSC on a wide range of local crop varieties.	Wagenigen University and Research
WHEAT ⁷¹	WHEAT is a CGIAR Research Program launched in 2012 and led by CIMMYT. CIMMYT's Global Wheat Program is one of the most important public sources of high yielding, nutritious, disease- and climate-resilient wheat varieties for Africa, Asia, and Latin America. WHEAT offers productivity-enhancing options, helping smallholders to improve farming practices and make the best use of their land in ever more challenging conditions constrained by virulent diseases, less water, fewer agricultural inputs, rising temperatures and more erratic rainfall. WHEAT addresses such challenges through two strategic research pillars, germplasm improvement and sustainable intensification. Associated work takes place under thematic areas known as flagship projects that tackle current and coming constraints to food security, improved farm livelihoods, and sustainable development.	Africa, Asia, and Latin America.	Wheat	CGIAR Centers: ICARDA, BBSRC (UK), ICAR (India), ACIAR (AU), INIA (Bolivia), INIAF (Uruguay), INRA (Morocco), IRESA (Tunisia), BARI (Bangladesh), G-20 Wheat Initiative, International Wheat Yield Partnership. Australia (ACIAR), UK (DFID) and USA (USAID) supported the CGIAR Agri-food Systems Research Program on Wheat (WHEAT) with Window 2 funding and 14 funders

⁶⁸ <https://www.syngentafoundation.org/news/seeds2b-news/our-foundation-signs-gda-usaid>.

⁶⁹ <https://www.accessseeds.org/coordination-index-critical-new-usaid-20m-program-seed-system-support/>.

⁷⁰ <https://www.wur.nl/en/Research-Results/Projects-and-programmes/Wageningen-Seed-Centre/Objectives.htm>.

⁷¹ <https://wheat.org/>; <https://www.cimmyt.org/work/wheat-research/>.

				supported with Window 1 funds through the CGIAR Fund. ⁷² Bilateral funders support programs and projects matched to WHEAT Flagship Projects (FPs) and Clusters of Activity (CoAs).
Wild potato collection in Peru⁷³ (Associated CGIAR Research Program/Platform: Roots, Tubers and Bananas, Genebank Platform)	The objective of the program is to safeguard Peru's agrobiodiversity for future generations. Under the program, CIP and Peru's Instituto Nacional de Innovación Agraria (INIA) undertook a series of collection trips in 2017-18 to fill genetic gaps in the CIP Genebank collection. Researchers evaluated the disease resistance of wild species and hybrids produced by earlier crosses. They also began working with Peruvian farmers to select the best of those potatoes in terms of production and flavor, for possible release as varieties in Peru and sharing with breeding programs in Africa and Asia. The goal is to evaluate and harness the genetic diversity of these species to eventually release a climate-smart potato varieties in the coming years.	Peru	Potato	Norwegian Agency for Development Cooperation (via the Global Crop Diversity Trust); Organization of the Petroleum Exporting Countries Fund for International Development. In partnership with INIA; Global Crop Diversity Trust; Royal Botanical Gardens Kew.

⁷² <https://wheat.org/partner-map-where-we-work/>.

⁷³ <https://cipotato.org/>; CIP Annual Report 2018. Towards food system transformation available at <https://cgspace.cgiar.org/handle/10568/103463>.