



# A Good Global Investment for the United States

## How investing in CGIAR makes America stronger, safer and more prosperous

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# INTRODUCTION

*This report documents how CGIAR investments have delivered substantial economic, security, and diplomatic benefits for the U.S. that far exceed financial contributions. By driving agricultural innovation and providing evidence-based insights, CGIAR has boosted U.S. farm productivity, expanded export markets, and made food more affordable for American consumers. It has also helped prevent billions of dollars in potential damage from pests and diseases that threaten U.S. food security and farm livelihoods. CGIAR promotes American leadership in agricultural innovation by supplying the majority of the genetic materials used in U.S. crop breeding and acting as a critical research partner for U.S. businesses and universities. CGIAR also makes America safer and stronger through its work on predicting crises, protecting food security, and on improving livelihoods as an alternative to migration.*

**The United States is a founding member of CGIAR and has helped to shape its priorities and strategies for over five decades.** CGIAR, a global research system created in 1971 during the Nixon Administration and originally known as the Consultative Group on International Agricultural Research is an international network of 15 agricultural research centers with more than 9,000 scientists working towards a food-secure future for all. A high-level representative of the United States Government has always held a seat in CGIAR's governing body and has ensured substantive representation of U.S. interests in CGIAR's work, including the countries it chooses to partner with and the scientific solutions it develops and promotes.

**CGIAR's work is focused on lower-income countries where food security is particularly at risk and where the benefits of its work are substantial.** By 2020, CGIAR science—especially crops bred for higher yields and resistance to pests and diseases—had been introduced across more than 544 million acres of agricultural land in Asia, Africa, and Latin America, creating \$47 billion in annual economic benefits.<sup>1</sup>

**CGIAR also directly benefits the United States, and this report documents how CGIAR's work makes America safer, stronger and more prosperous.** The report starts by showing how CGIAR makes America more prosperous, highlighting three important channels: (1) benefits to U.S. farming, (2) growth in U.S. exports, and (3) improved affordability of food for U.S. consumers—all of which support the American agenda. It also highlights how CGIAR's work makes America safer and stronger through its work on predicting crises, and on building livelihoods as an alternative to migration. The gains to the U.S. come at a fraction of the cost of the investments thanks to the high returns and because the U.S. is one of several donors, allowing the U.S. to also benefit from the CGIAR contributions of other donors.

**CGIAR seed technologies directly benefit U.S. farmers.** CGIAR's global wheat breeding network—the brainchild of American agronomist and Nobel laureate Norman Borlaug and founder of the CGIAR center on maize and wheat, CIMMYT—is a good example of how CGIAR technologies benefit the U.S. About 60 percent of wheat grown in the U.S. can be traced back to CGIAR breeding material. The result is wheat varieties that enable U.S. farmers to produce an additional 1 million tons of wheat per year, generating at least \$15 billion in increased profitability for U.S. farmers since 1971. Additionally, CGIAR's work preventing the spread of wheat stem rust to U.S. agriculture avoided up to \$3 billion in

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<sup>1</sup> Fuglie, K. Echeverria, R. 2024. The economic impact of CGIAR-related crop technologies on agricultural productivity in developing countries, 1961–2020. *World Development*, 176, 106523.

potential losses for U.S. farmers. If we consider CGIAR breeding of other crops such as corn, rice, sorghum, barley, legumes, and fodders, the benefits to U.S. farmers are even larger in absolute dollar terms—far beyond the U.S. Government’s annual support to CGIAR.

**CGIAR investments increase demand for U.S. exports by raising incomes and creating markets in developing countries.** Estimates indicate that CGIAR investments result in an additional \$35 billion in annual exports for the U.S. These include U.S. industrial equipment and consumer goods, as well as U.S. expertise in financial and technical services.

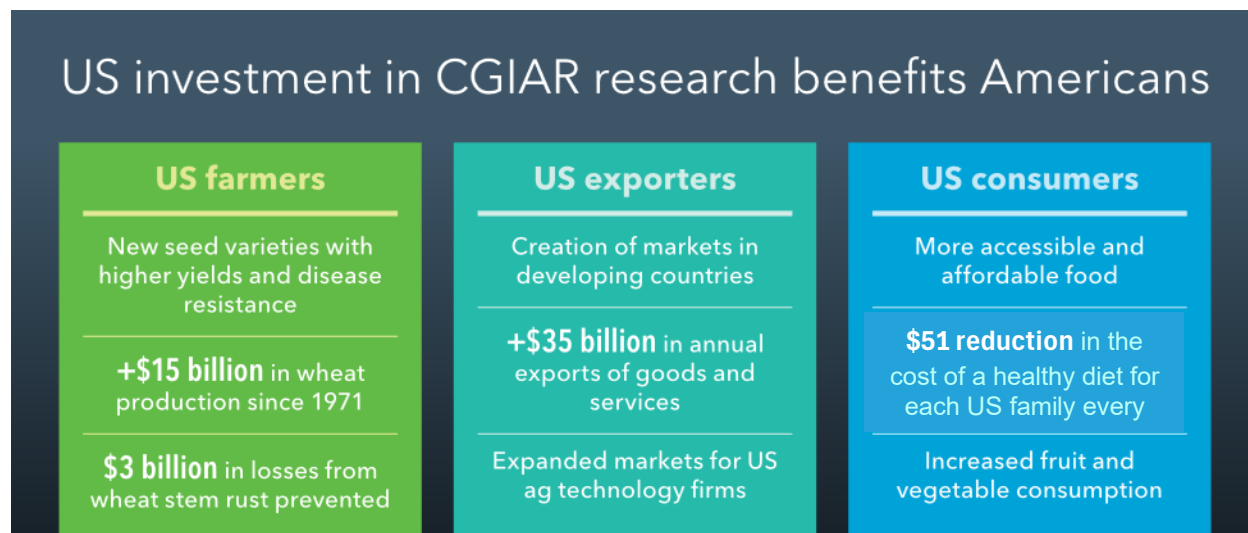
**CGIAR investments make food more affordable for U.S. consumers.** CGIAR research makes healthy and nutritious foods more accessible and less costly in the U.S., particularly foods that cannot be grown, or grown year-round, in the U.S. Estimates suggest that CGIAR investments have reduced the cost of a healthy diet in the U.S. by 1%—an annual saving of \$51 per family of four—and increased the amount of fruits and vegetables consumed by American families. One of the ways that CGIAR investments keep food affordable is through its work on monitoring and preventing zoonotic diseases such as Avian Influenza and African Swine Fever. CGIAR vaccine development and disease modelling helps prevent these diseases from causing widespread losses to the meat and poultry industry and thus from increasing prices of meat and eggs.

**In addition to making America more prosperous, CGIAR investments make America safer and stronger.** CGIAR analyses and prediction of crises—especially famines, food price shocks and zoonotic disease outbreaks—informs U.S. foreign policy and shapes U.S. responses to rapidly emerging situations around the world protecting food security and stability. These responses include the provision of humanitarian assistance as well as appropriate security responses to associated challenges such as terrorism and migration. CGIAR investments contribute to better livelihoods and safety nets for households. Faced with better prospects when staying at home, households in Central America have been shown to be less likely to migrate to the U.S.

**CGIAR sustains its role in making America safer and stronger by supporting a global alliance of scientists, policymakers, and entrepreneurs.** As a result of CGIAR, leaders in policy, research, and business from lower-income countries received training from U.S. universities and built durable ties to the U.S. These are people who recognize the value of U.S. agricultural research and maintain a deep personal connection with the American people.

**The benefits to U.S. investment in CGIAR far outweigh the value of U.S. funding to CGIAR since 1971.** Some of the benefits are quantifiable: an additional 1 million tons of wheat production in the U.S. each year from higher-yielding varieties, averted wheat stem rust losses of \$3 billion, an additional \$35 billion in U.S. exports each year. Figure 1 summarizes these substantial gains. Additional benefits include increased availability and affordability of healthy foods for U.S. consumers, reduced migration, better crisis intelligence and strengthened U.S. networks across the developing world. Together the benefits make CGIAR a good investment for the U.S.

Figure 1.



## SECTION 1: MAKING AMERICA MORE PROSPEROUS

### CGIAR investments bring productivity benefits for U.S. farmers

**CGIAR research makes U.S. farming more productive and profitable.** For example, 60 percent of wheat acreage planted in the U.S. today uses genetic material that originated from CGIAR center CIMMYT.<sup>2</sup> Research from the United States Department of Agriculture (USDA) finds substantial yield gains for U.S. farmers from using crop varieties linked to CGIAR technologies. CGIAR technologies developed by CIMMYT are estimated to have raised national wheat yields in the U.S. by 2%, which is equivalent to an additional 1 million tons of wheat produced in the U.S. each year. If CGIAR breeding on other crops, such as corn, rice, sorghum, barley, legumes, and fodders, are also accounted for, then the increased yields and profits to U.S. farmers are even larger.

**CGIAR develops higher-yielding and more profitable varieties of staple crops like wheat that US farmers rely on.** Higher yields, for example, not only raises incomes for U.S. farmers, but it creates jobs along U.S. supply chains and in the broader economy. CGIAR estimates that, each year, its contribution to U.S. wheat farming adds \$220 million to U.S. households' real incomes.<sup>3</sup> Just these benefits alone are enough to offset the total cost of U.S. annual investments in CGIAR. When other crops are included, the contribution of CGIAR technologies to the U.S. economy is even larger. For example, studies conducted in the 1990s estimated that U.S. farmers gained as much as \$43 million per year from using rice varieties linked to CGIAR research. Estimates for other crops do not exist but the benefits to U.S. farmers are likely to be similarly positive and substantial. These benefits are realized by U.S. farmers via state and federal agricultural R&D programs and via leading U.S. crop science companies.

**Future productivity growth in U.S. agriculture will benefit from U.S. investment in CGIAR.** CGIAR is an important provider of crop genetic material to the U.S., and these materials are critical to improving future yields and output on U.S. farms which translates into greater farmer profitability. Since 2007, CGIAR has provided more than 235,000 samples of genetic materials from its genebanks and breeding programs to U.S. partners.<sup>4</sup> Over the past three decades, CGIAR's provision of genetic material to U.S. partners has increased dramatically, partly because other countries have tightened their regulations on sharing materials. Today, 85% of U.S. acquisitions of foreign genetic materials are supplied by CGIAR genebanks – up from just 18% in the 1990s.<sup>5</sup> The U.S. benefits from these genebanks which are funded by multiple donors, giving the U.S. a substantial return for its own support. In the future, CGIAR is likely to remain the main source of foreign crop genetic material for U.S. breeding programs in U.S. universities and companies. These genetic materials will be essential to the discovery and development of new productivity-enhancing traits that benefit U.S. farmers and increase profitability. For example, CGIAR-derived drought-tolerant and heat-tolerant maize supports the availability of maize germplasm with novel genetic traits in the U.S. The maize genetic enhancement program in the U.S. integrates this improved maize germplasm into the U.S. Corn Belt germplasm.

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<sup>2</sup> Lantican, M.A. H.J. Braun, T.S. Payne, R.P. Singh, K. Sonder, M. Baum, M. van Ginkel, O. Erenstein. 2016. Impacts of International Wheat Improvement Research, 1994-2014. Mexico, D.F.: CIMMYT.

<sup>3</sup> Analysis from a global economywide model based on U.S. economic data from Purdue University and USDA estimates of U.S. wheat yield gains.

<sup>4</sup> Figures from the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). Mekonnen, D. Spielman, D.J. 2021. Changing patterns in genebank acquisitions of crop genetic materials: An analysis of global policy drivers and potential consequences. *Food Policy* 105, 102161. <https://doi.org/10.1016/j.foodpol.2021.102161>

<sup>5</sup> Compiled from GENESYS and USDA National Plant Germplasm System (NPGS) as of February 6, 2025

**CGIAR has long collaborated with U.S. land grant universities and U.S.-based scientists to carry out research on crop improvement.** CGIAR's global network and on-the-ground presence in lower-income countries provides U.S.-based scientists with the ideal venue to conduct cutting-edge research and test new solutions to disease and pest management. CGIAR campuses, laboratories, fields, and facilities around the world are responsible for some of the most successful research programs on crop improvement. These collaborations provide U.S. land grant universities, USDA research programs, and crop-science companies with access to CGIAR breeding materials, CGIAR expertise and facilities, and CGIAR data from R&D conducted around the world. These same collaborations provide CGIAR with access to cutting-edge technologies developed by U.S. scientists and industry, thereby expanding U.S. leadership in the field of molecular biology, genetics, and bioinformatics, among many other fields. Examples include the Borlaug Global Rust Initiative (BGRI) at Cornell University, the Maize Lethal Necrosis (MLN) Gene Editing Project with Corteva, and multiple projects with Monsanto on transgenic crop development with confined field trials.

**U.S. investments in CGIAR protect U.S. crops from pests and diseases.**<sup>6</sup> CGIAR works with U.S. universities and research institutes to identify and prevent the spread of pests and diseases that would threaten U.S. farmers and consumers.<sup>7</sup> For example, a CIMMYT collaboration with Cornell and other universities prevented the spread of wheat stem rust to U.S. agriculture,<sup>8</sup> thereby avoiding up to \$3 billion in potential losses for U.S. farmers and providing the time needed to breed rust-resistant wheat varieties.<sup>9</sup> A similar CGIAR collaboration with the University of Georgia and Purdue University is working to prevent the spread of aflatoxins into U.S. peanut supply chains, which currently costs the U.S. peanut industry as much as \$126 million a year.<sup>10</sup> CGIAR's surveillance activities therefore complement its breeding programs that focus on developing high-yielding and pest- and disease-resistant materials that are used to develop new crop varieties in the U.S. for food safety and profitability.<sup>11</sup>

### **CGIAR investments increase demand for American exports**

**CGIAR has increased U.S. exports to low- and middle- income countries in two ways.** First, by raising incomes for people in low- and middle-income countries, CGIAR has increased demand for U.S. exports of all kinds. As an example, about two-thirds of U.S. agricultural exports now go to developing countries, where U.S. exports markets have grown significantly faster than in high-income countries

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<sup>6</sup> Ristaino, J.B. Anderson, P.K. Beber, D.P. Brauman, K.A. Cunniffe, N.J. Fedoroff, N.V. Finegold, C. Garrett, K.A. Gilligan, C.A. Jones, C.M. Martin, M.D. MacDonald, G.K. Neenan, P. Records, A. Schmale, D.G. Tateosian, L. Wei, Q. 2021. The persistent threat of emerging plant disease pandemics to global food security. *Proceedings of the National Academy of Sciences*, 118(23), e2022239118. <https://doi.org/10.1073/pnas.2022239118>.

<sup>7</sup> Kumar, P. L. Cuervo, M. Kreuze, J. F. Muller, G. Kulkarni, G., Kumari, S. G. Massart, S. Mezzalama, M. Alakonya, A. Muchuga, A. Graziosi, I. Ndjondjop, M. Sharma, R. Negawo, A., 2021. Phytosanitary interventions for safe global germplasm exchange and the prevention of trans-boundary pest spread: the role of CGIAR germplasm health units. *Plants*, 10(2), 328. <https://doi.org/10.3390/plants10020328>

<sup>8</sup> McIntosh, R.A. Pretorius, Z.A. 2011. Borlaug Global Rust Initiative provides momentum for wheat rust research. *Euphytica*, 179, 1-2. <https://doi.org/10.1007/s10681-011-0389-y>

<sup>9</sup> Based on extrapolating estimates for Australia under a scenario in which Ug99 is present in all areas of U.S. wheat production. Additional estimates on Ug99's impacts on U.S. wheat value the production gains between \$1.7-11.6 billion: Paarlberg, P., A. Seitzinger, and T. Vo. 2014. Estimating the potential economic impact of puccinia graminis f. sp. tritici tks race (Ug99) (wheat stem rust). Department of Agricultural Economics, Working Paper no., 14-1, Purdue University; <http://dx.doi.org/10.22004/ag.econ.164403>

<sup>10</sup> Smith, Ron. July 2021. Aflatoxin costs peanut industry millions annually. *Farm Progress*. Southwest Farm Press. <https://www.farmprogress.com/peanut/aflatoxin-costs-peanut-industry-millions-annually>

<sup>11</sup> Byerlee, D. Dubin, H. J. 2010. Crop improvement in CGIAR as a global success story of open access and international collaboration. *International Journal of the Commons*, 4(1), 452-480. <https://www.jstor.org/stable/26523031>

over recent years.<sup>12</sup> This pattern holds true for other types of exports. Second, by helping to drive economic growth in agriculture, CGIAR has developed markets for agricultural technology exports which has benefited U.S. firms in the agricultural sector.

**CGIAR research has contributed to rising incomes in low- and middle-income countries around the world, which has increased demand for U.S. consumer goods.** Norman Borlaug was awarded the Nobel Peace Prize and Congressional Gold Medal for his work with CGIAR, which sparked a period of rapid growth in agricultural productivity and crop yields known as the Green Revolution. The green revolution is considered the most important period of agricultural innovation in modern history, bringing large and almost immediate increases in rice and wheat yields throughout Asia and Latin America. Recent work carefully documenting the impact of these technologies shows that yields of food crops increased by 44 percent from 1965 to 2010, and that this increased incomes, allowed households to educate their children, have fewer children, and move out of agricultural production into higher-return activities.<sup>13</sup> GDP per capita would have been 17 percent lower in developing countries in 2010 without the investments in agricultural technologies made by CGIAR and others.<sup>14</sup> The overall income gain from these technologies between 1965 and 2010 is estimated at \$83 trillion, equivalent to one year of GDP in today's world. CGIAR accounts for 9 percent of total agricultural investments and can be credited with 9 percent of this increase.

**The impact of this income growth on demand for U.S. exports has been substantial, amounting to a \$35 billion annual increase in exports.** Agricultural and non-agricultural exports from the U.S. have steadily increased over time, contributing to farmers' incomes and creating employment opportunities for U.S. workers.<sup>15, 16</sup> Agricultural exports currently support over 1.2 million domestic jobs in the U.S. and every dollar of U.S. agricultural exports generates about USD 2.09 in domestic economic activity.<sup>17</sup>

**CGIAR's food systems research continues to support economic development and income growth in low- and middle- income countries, ultimately supporting these positive spillovers for U.S. exporters.** The greatest potential for future growth in U.S. agricultural exports is in Africa, where much of CGIAR research is focused and where the population is expected to double by 2070.<sup>18</sup> From 1999 through 2019, agricultural imports to African countries from outside the region have grown by 7.4 percent annually.<sup>19</sup> U.S. exports to the region have strong potential for growth. For example, Africa is expected to lead the world in poultry imports over the coming years, reaching 2.5 million metrics

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<sup>12</sup> USDA-ERS. January, 2025. U.S. Agricultural Trade - U.S. Agricultural Trade at a Glance. <https://www.ers.usda.gov/topics/international-markets-us-trade/us-agricultural-trade/us-agricultural-trade-at-a-glance>

<sup>13</sup> Gollin, D. Hansen, C. W. Wingender, A. M. 2021. Two blades of grass: The impact of the Green Revolution. *Journal of Political Economy*, 129(8), 2344-2384.

<sup>14</sup> This assumes that without these investments the green revolution would have happened, but just ten years later. If the green revolution had never happened GDP would be 50 percent lower.

<sup>15</sup> USDA-ERS. 2025, January 7. U.S. Agricultural trade – U.S. agricultural trade at a glance. USDA-ERS website. <https://www.ers.usda.gov/topics/international-markets-us-trade/us-agricultural-trade/us-agricultural-trade-at-a-glance>

<sup>16</sup> FRED. 2025, January 30. Exports of Goods and Services. FRED Economic data. <https://fred.stlouisfed.org/series/EXPGS>

<sup>17</sup> USDA-ERS. 2025. Agricultural trade multipliers. USDA-ERS website. <https://www.ers.usda.gov/data-products/agricultural-trade-multipliers>

<sup>18</sup> Van Teutem, Simon. 2024. The UN projects that Africa's population will double by 2070. Data from UN World Population Prospects 2024. Our World In Data. <https://ourworldindata.org/data-insights/the-un-projects-that-africas-population-will-double-by-2070>

<sup>19</sup> Farris, Jarrad. Morgan, Stephen. Johnson, Michael. 2023, February 6. Market opportunities expanding for agricultural trade and investment in Africa. *Amber Waves*. USDA-ERS website.

tons annually by 2031.<sup>20</sup> As incomes rise and the population grows faster than in any other region, imports of a wide range of consumer goods will likely increase, presenting opportunities for U.S. businesses.

**In addition to this general increase in demand for U.S. exports, CGIAR develops markets for agricultural technologies in low- and middle-income countries, creating export opportunities for U.S. agricultural technology and equipment businesses.** While markets for improved crop varieties, fertilizer, pest management, and mechanized agricultural products are well-established across the U.S. and other high-income countries, there is significant potential for growth in other parts of the world. CGIAR works with private businesses and governments to develop agricultural innovations, including mechanization solutions, fit them to context, and facilitate their adoption in low- and middle-income countries.

**Since its inception, a key component of CGIAR's work has been developing and introducing new crop varieties, and it has worked with U.S. firms to do this.** CGIAR's private partners, including U.S. businesses, meet the commercial demand created by these projects, resulting in benefits for the companies, CGIAR, farmers, and consumers. CGIAR has partnered with Corteva Agriscience, a U.S.-based seed company, for many years to develop crop varieties that support global food security. The relationship between Corteva Agriscience and CGIAR results in Corteva expanding its market penetration in the low- and middle-income countries in increasingly competitive seed markets. For example, drought-tolerant maize lines developed by CIMMYT are being utilized by Corteva in hybrids being marketed in sub-Saharan Africa.

**A key component of scaling crop innovations is an enabling environment of policies, standards, and knowledge to ensure a fair and efficient market environment.** Standards are needed along value chains to distinguish fortified varieties from other crops and designate their niche in the market. Working with private sector partners, CGIAR researchers provide insights to develop these standards and overcome other policy hurdles to commercialization of new crop varieties. As a nonprofit organization, CGIAR is positioned to address policy and fundamental research gaps that would not be cost effective for private businesses.

**CGIAR expands markets for biotech seeds in low- and middle-income countries which benefits U.S. companies.** The U.S. is a global innovation leader in agricultural biotechnology, including applications such as genetic engineering and genome editing. The U.S. biotech seed market is projected to reach approximately \$21 billion by 2025, and U.S. companies are expected to account for 45% of the global market. Forecasts for 2032 project a global market value of \$81.7 billion. These numbers illustrate the enormous potential for U.S. companies that export or license biotech seeds and traits, or that provide scientific and technical expertise, services, and related products in the agbiotech sector.

**CGIAR enables countries to adopt science-based biosafety regulations that complement U.S. regulatory best practices.** Low- and middle-income countries need appropriate policies and regulations to ensure genetically engineered products can be imported, commercialized, cultivated by farmers, and enjoyed by consumers. U.S. investments in CGIAR—particularly through the International Food Policy Research Institute (IFPRI)—directly improve the regulatory environments in these countries and create commercial opportunities for U.S. agbiotech and agribusiness companies, U.S. universities and research institutions, and American scientific talent.

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<sup>20</sup> Farris, Jarrad. Morgan, Stephen. Johnson, Michael. 2023, February 6. Market opportunities expanding for agricultural trade and investment in Africa. Amber Waves. USDA-ERS website.

**CGIAR efforts to develop evidence-based regulatory systems have expanded markets for U.S. companies in both Sub-Saharan Africa and Southeast Asia.** In 2022, CGIAR provided technical support to develop a credible, science-based regulatory system in Kenya. Strengthened regulatory systems have resulted in an expanded market for U.S. agbiotech products such as insect-resistant (Bt) cotton. Similar CGIAR efforts to develop robust regulatory systems have enabled the introduction of genetically engineered insect-resistant (Bt) cowpea and drought-tolerant corn in Nigeria, again based significantly on U.S. scientific discoveries and assets. Similar work on corn in Kenya is being advanced in a collaboration between CIMMYT and Corteva, a U.S. company and global leader in seeds and traits, while other countries are following suit and looking to U.S. companies and universities for leadership on precision genetics for a food-secure future. In other countries such as Vietnam, CGIAR assisted efforts to introduce science-based changes to its food import policies that enabled U.S. farmers cultivating genetically engineered crops to access these export markets. In 2023/24, Vietnam imported 11 million tons of corn and cotton, with the U.S. as the dominant supplier.

**CGIAR also works with U.S. companies to promote agricultural machinery and equipment designed and produced in the U.S.** Asia is currently the leading market globally for agricultural mechanization and Africa represents the largest remaining untapped market for these products.<sup>21</sup> In one project, researchers worked with the Ghanaian government to establish Agricultural Mechanization Service Centers (AMSECs) around the country, private businesses which provide and service farm equipment. As part of the initial phase of the program, 500 John Deere tractors were imported to Ghana and training was provided for the maintenance and operation of this equipment.<sup>22</sup> The program has expanded to over 200 AMSECS and have distributed more than 1300 tractors as of 2023 along with other farm equipment.<sup>23</sup> CGIAR contributes to numerous similar projects related to scale-appropriate mechanization, which enable small holder farmers to access equipment through public-private partnerships.

**In another approach, CGIAR experts work with local extension agents to address gaps in services and introduce innovative solutions for over 1.3 million farmers.**<sup>24</sup> These programs lay the groundwork for the growth of U.S. agricultural equipment exports by building capacities and facilitating market access for both farmers and equipment suppliers.

### **CGIAR investments increase the availability and affordability of food for U.S. consumers**

**CGIAR research has contributed to increased availability and affordability of food in the U.S.** Increased food production in the U.S. and beyond has helped reduce the price of food. Investments in zoonotic disease control have also helped. Additionally, as consumers have come to demand year-round access to a wide variety of products at affordable prices, U.S. food imports of goods less suited

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<sup>21</sup> Zion Market Research. 2023. Agriculture Equipment Market Size, Share, Trends, Growth 2030. <https://www.zionmarketresearch.com/report/agriculture-equipment-industry>

<sup>22</sup> Japan International Cooperation Agency. 2015. Expert on smallholder farmers' access to agriculture mechanization in Ghana: Project completion report. [https://openjicareport.jica.go.jp/833/833/833\\_512\\_12238432.html](https://openjicareport.jica.go.jp/833/833/833_512_12238432.html)

<sup>23</sup> Zandstra, T., S. Benin, and S. Asante. 2025. How farmers in Ghana benefit from the Agricultural Mechanization Services Enterprise Centers Program. IFPRI Making a Difference Blog Series. <https://www.ifpri.org/blog/making-a-difference-how-farmers-in-ghana-benefit-from-the-agricultural-mechanization-services-enterprise-centers-program/>

<sup>24</sup> Davis, K., and E. Jones, 2023. Developing Local Extension Capacity (DLEC) project: Finding more effective ways to deliver vital information and innovation to farmers. IFPRI Making a Difference Blog Series. <https://www.ifpri.org/blog/developing-local-extension-capacity-dlec-project-finding-more-effective-ways-deliver-vital/>

for domestic growing conditions such as coffee, cacao, bananas and off-season fruits and vegetables has increased.<sup>25 26</sup>

**Our estimates show that CGIAR investments reduce the cost of a healthy diet in the U.S. by 1 percent and increase the consumption of fruits and vegetables.** CGIAR improvements in agricultural productivity have allowed the cost of food to become cheaper throughout the world, and also for American consumers. This reduction amounts to an annual saving of \$51 for a healthy diet for a family of four people. Growing incomes and lower prices have allowed American consumers to increase their per capita consumption of fruits and vegetables.

**These efforts help to reduce food price inflation and inflation more broadly.** Food price inflation is important for overall inflation, as food items comprise 14 percent of the CPI basket. In 2022, food prices increased by over 11 percent in the U.S., the highest annual increase on record since 1979.<sup>27</sup> Supply factors, including higher international food prices as a result of the war in Ukraine, have been responsible for about half of U.S. inflation in the last few years and three quarters of U.S. food price shocks.<sup>28, 29</sup> The median long-term pass through of a 1 percent food price shock to domestic food prices is 0.18 percent in advanced economies.<sup>30</sup>

**CGIAR's work on addressing zoonotic diseases is also essential to ensuring the availability and affordability of food in the U.S.** Zoonotic diseases are infections that are spread between people and animals. Some of these diseases, such as Avian Influenza, which can be transmitted from wild to domestic birds, can be highly pathogenic and cannot be stopped at borders. When transmitted to the poultry industry, birds often die quickly; requiring extensive quarantine and culling to contain disease spread. As a result, Avian Influenza outbreaks can have devastating impacts on the national poultry industry, costing the U.S. economy billions of dollars in addition to raising prices for eggs and poultry with potential spillover effects to other foods and feed inputs.<sup>31</sup> An outbreak of bird flu in 2022 was associated with a 50 percent or larger increase in egg prices, 45 percent increase in turkey prices, and a 44 percent increase in chicken prices.<sup>32</sup> While not common, some strains of Avian Influenza can also infect humans and other animals leading to illness and even death. As wild birds can migrate between continents and thereby spread the disease across large areas, international collaboration on disease surveillance and prevention is essential. CGIAR research with distributed agricultural research stations across

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<sup>25</sup> USDA-ERS. 2025, January 8. Agricultural Trade. USDA-ERS website. <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/agricultural-trade>

<sup>26</sup> Kenner, Bart. Williams, Angelica. Kaufman, James. 2025. US Agricultural Trade – Outlook for US Agricultural Trade. <https://www.ers.usda.gov/topics/international-markets-us-trade/us-agricultural-trade/outlook-for-us-agricultural-trade>

<sup>27</sup> Adjemian, Michael K, S. Arita, S. Meyer and D. Salin. 2024. Factors affecting recent food price inflation in the United States. *Applied Economic Perspectives and Policy* 2024; 46:648-676.

<sup>28</sup> Shapiro, Adam. 2022. How Much Do Supply and Demand Drive Inflation? FRBSF Economic Letter 2022-15.

<sup>29</sup> Adjemian, Michael K, S. Arita, S. Meyer and D. Salin. 2024. Factors affecting recent food price inflation in the United States. *Applied Economic Perspectives and Policy* 2024; 46:648-676.

<sup>30</sup> Davide Furceri, Prakash Loungani, John Simon, and Susan Wachter. 2015. Global Food Prices and Domestic Inflation: Some Cross Country Evidence. IMF working paper.

<sup>31</sup> Djunaidi, H. Djunaidi, ACM. 2007. The Economic Impacts of Avian Influenza on World Poultry Trade and the U.S. Poultry Industry: A Spatial Equilibrium Analysis. *Journal of Agricultural and Applied Economics*. 39 (2):313-323. doi:10.1017/S1074070800023014

<sup>32</sup> Zamani, O. Bittmann, T. Ortega, D. L. 2024. The effect of avian influenza outbreaks on retail price premiums in the United States poultry market. *Poultry Science*, 103(10), 104102.

the Global South has modelled the potential impact of this disease and developed insights for its containment, including through vaccination in low-income countries that could serve as the origin of influenza strain.<sup>33</sup>

African Swine Fever (ASF) is another disease CGIAR centers work to contain. Though never reported in the U.S., an outbreak could cost the U.S. pork industry \$15 to \$50 billion due to culling and containment.<sup>34</sup> Already in 1978, CGIAR's Technical Advisory Committee requested CGIAR research to contain ASF that had by then appeared in Latin America, including to prevent its spread to developed countries<sup>35</sup>. The International Livestock Research Institute (ILRI) leads CGIAR's ASF research, focusing on monitoring and containment in Africa and Asia. ILRI also collaborates with U.S. and European institutions and private partners to develop and scale a vaccine using CRISPR genome editing technology, as ASF currently has no cure.<sup>36</sup>

**More efficient and healthy production of banana, cacao and coffee has direct benefits for U.S. consumers.** In 2023, U.S. banana imports totaled \$2.7 billion largely from countries where CGIAR works<sup>37</sup> and imports account for nearly all cocoa and coffee. CGIAR is actively involved in developing and promoting disease-resistant solutions for banana,<sup>38</sup> cacao,<sup>39</sup> and coffee.<sup>40</sup> This benefits U.S.-based consumers by ensuring a stable supply of these products to meet U.S. demand, keeping the prices for these products low and reducing the pesticide load of imported produce. Preventing crop failure in this way also ensures stable livelihoods for growers who may otherwise seek to migrate outside their home countries to find work.

**The greater availability of off-season fruit and vegetables has increased year-round consumption of these goods and in some cases has also stimulated growth in domestic production to satisfy higher levels of demand.** Blueberries are a good example in this regard. Blueberry consumption more than quadrupled in the last 15 years, increasing from 0.27 kg per person in 2007 to 1.26 kg per person in 2022.<sup>41</sup> Greater, sustained demand for blueberries also increased U.S. production. The U.S. now enjoys a more diverse and stable blueberry supply, benefiting both consumers and producers alike (figure 2).

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<sup>33</sup> For example: Jutzi, S.C. Rich, K.M. 2016. An evaluation of CGIAR Centers' impact assessment work on livestock-related research (1990-2014). Rome, Italy, Standing Panel on Impact Assessment (SPIA), CGIAR Independent Science and Partnership Council (ISPC). 69 pp. Diao, X. 2011. Economywide impact of avian influenza in Ghana—a dynamic computable general equilibrium (DCGE) model analysis. *International Journal of Livestock Production*, 2, 145-158. Gilbert, M. Xiao, X. Robinson, T. P. 2017. Intensifying poultry production systems and the emergence of avian influenza in China: a 'One Health/Ecohealth' epitome. *Archives of public health*, 75, 1-7. Omiti, J. M. Okuthe, S. O. 2009. An overview of the poultry sector and status of Highly Pathogenic Avian Influenza (HPAI) in Kenya: Background Paper.

<sup>34</sup> USDA. 2021. African swine fever: A producer's guide to the federal emergency response process. Animal and Plant Health Inspection Services. Program Aid No. 2237-6.

<sup>35</sup> Technical Advisory Committee Twentieth Meeting, 20-22 September 1978. Report <https://cgspace.cgiar.org/bitstreams/e716f22f-2140-44a9-8377-902cc6bb8773/download>

<sup>36</sup> Slater, Annabel. February, 2024. A vaccine solution for African swine fever is within reach. ILRI News. <https://www.ilri.org/news/vaccine-solution-african-swine-fever-within-reach>

<sup>37</sup> Glauber, Joseph. 2024. The likely U.S. longshoreman strike and its implications for agricultural trade. IFPRI Blog series: Conflict and other shocks impacting food systems. <https://www.ifpri.org/blog/the-likely-u-s-longshoreman-strike-and-its-implications-for-agricultural-trade/>

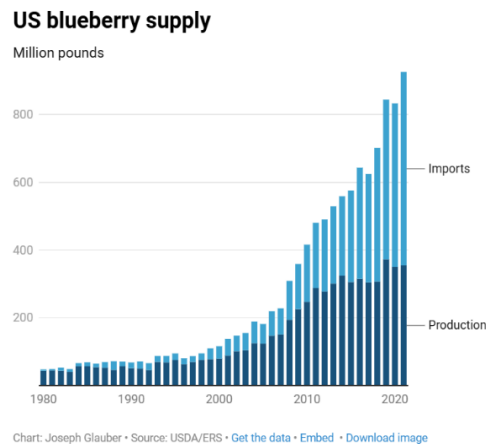
<sup>38</sup> The Alliance of Bioversity International and CIAT. 2024, July 3. Bringing diverse bananas to market. Cgiar.org. [https://www.cgiar.org/news-events/news/bringing-diverse-bananas-to-market/?utm\\_source=chatgpt.com](https://www.cgiar.org/news-events/news/bringing-diverse-bananas-to-market/?utm_source=chatgpt.com)

<sup>39</sup> Ocampo-Ariza, C. Müller, S. Yovera, F. Thomas, E. Vansynghel, J. Maas, B. Steffan-Dewenter, I. Tschardtke, T. 2025. Cacao grafting increases crop yield without compromising biodiversity. *Journal of Applied Ecology*, Online first paper (2025-01 -19). <https://doi.org/10.1111/1365-2664.14851>

<sup>40</sup> Avelino, J. Romero-Guardian, A. Cuellar-Cruz, H. Declerck, F.A. 2012. Landscape context and scale differentially impact coffee leaf rust, coffee berry borer, and coffee root-knot nematodes. *Ecol. Appl.*, 22, 584–596. <https://doi.org/10.1890/11-0869.1>

<sup>41</sup> Piñero, V. Gianatiempo. J.P. Forthcoming. Agricultural Transformation and International Insertion: Peru's Rise as the Leading Exporter of Blueberries. IFPRI Blog.

**Figure 2.**



**CGIAR work also supports the livelihoods of many U.S. workers employed in food value chains.** For example, 2.2 million people in the U.S. work in the coffee industry which imports beans from countries where CGIAR has an active presence such as Colombia, Brazil, and Indonesia.<sup>42</sup> By supporting coffee farmers who supply beans to American companies, CGIAR promotes profitability and job growth in the U.S. Products such as tea and cacao beans for chocolate production are similar examples where CGIAR research supports U.S. agrifood business.

<sup>42</sup> Technomic. 2023. Coffee Economic Impact Report. NCA website. <https://www.ncausa.org/Research-Trends/Economic-Impact>.

## SECTION 2: MAKING AMERICA STRONGER AND SAFER

### CGIAR analysis on food system risks and crisis response informs U.S. policy and saves lives

**Food systems around the world are closely connected by global markets, and shocks to one corner of these systems often reverberate to impact suppliers and consumers across many countries.** The recent example of the war in Ukraine demonstrates how localized events can threaten global food security (with implications for peace in some contexts) and push up prices of food, fertilizer, and energy.<sup>43, 44</sup> In some cases, such as the recent longshoremen strike, fear of disruptions can lead to panic buying at grocery stores creating logistical challenges and short-term food shortages.<sup>45</sup> Despite these concerns, value chains in the U.S. have largely managed to adapt quickly to shocks and maintain stable food supplies. This resilience requires agile food systems grounded in evidence-based policy where decision makers have timely access to accurate information and market insights.

**CGIAR researchers support U.S. responses to food system shocks by analyzing market developments and predicting impacts on economies and food security.** For example, IFPRI has provided timely analysis of export bans in India, impacts of El Niño on crop production, the war in Ukraine, trade sanctions, fertilizer export restrictions, and numerous regional challenges.<sup>46</sup> Tools like the Food Security Portal, which was accessed 35 million times during 2021-2023, track food price volatility and import vulnerability.<sup>47</sup> CGIAR researchers also provide guidance to U.S. stakeholders on crisis response. For example, researchers worked with FEWSNET to assess grain availability in Southern Africa during the El Niño in 2023, helping U.S. officials better target humanitarian assistance. CGIAR rapid response analysis of the war in Ukraine also directly informed the allocation of Congressional relief funds in 2022. CGIAR therefore enables an evidence-based approach to U.S. crisis response, improving decision-making and promoting market stability and economic recovery. By directing actions to protect food security, this work contributes to stability.

**Work undertaken by CGIAR on zoonoses surveillance and control is critical and has the potential to save millions of lives.** CGIAR's One Health Initiative estimates that work undertaken by CGIAR scientists on zoonosis pandemic prevention contributes to saving an expected 11 million lives globally from disease such as Ebola and Mpox, including lives in the U.S.<sup>48</sup> This includes monitoring and modeling disease outbreaks, supporting governments to develop disease contingency plans and developing decision support tools to control outbreaks as well as developing vaccines to prevent infection in animals and identifying policies that de-risk wild meat markets.<sup>49</sup> Similar CGIAR research has examined

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<sup>43</sup> Glauber, Joe. Laborde, David. 2022. How will Russia's invasion of Ukraine affect global food security?. IFPRI blog series: Conflict and other shocks impacting food systems. <https://www.ifpri.org/blog/how-will-russias-invasion-ukraine-affect-global-food-security/>

<sup>44</sup> Glauber, Joe. 2024. Ukraine and global agricultural markets two years later. IFPRI blog series: Conflict and other shocks impacting food systems. <https://www.ifpri.org/blog/ukraine-and-global-agricultural-markets-two-years-later/>

<sup>45</sup> LaRocco, Lori Ann. 2024. Panic buying amid US ports strike is creating supermarket supply concerns. CNBC State of Freight. <https://www.cnbc.com/2024/10/03/panic-buying-us-ports-strike-food-supply-concerns.html>

<sup>46</sup> IFPRI Blog Series: Conflicts and other shocks impacting food systems. <https://www.ifpri.org/landing/conflict-shocks-food-systems-blog/>

<sup>47</sup> Underwood, Alix. Dimaranan, Betina. Mamun, Abdullah. Vos, Rob. 2024. Shaping global agendas: The IFPRI Food Security Portal's pathways to impact. Making a difference blog series. <https://www.ifpri.org/blog/shaping-global-agendas-ifpri-food-security-portals-pathways-impact/>

<sup>48</sup> Slater, Anabel. 2024. Eating wild animals: The rewards are as big as the risks. ILRI News. <https://www.ilri.org/news/eating-wild-animals-rewards-are-big-risks>

<sup>49</sup> Hung Nguyen-Viet and Hoffmann, V. 2021. Protecting human health through a One Health approach: Proposal. Montpellier, France: CGIAR System Organization. 55 pp. <https://hdl.handle.net/10568/121116>

the spread of diseases such as swine flu and avian flu informing surveillance systems in Asia and Africa.<sup>50, 51</sup> Because of the potential for these diseases to spread rapidly, early detection and containment is critical for saving human lives in these regions and in the U.S.

**In fragile and conflict affected settings, CGIAR's work informs policies that promote peace and prevent escalation of conflict.** Social safety net programs designed with CGIAR research can be an effective tool for preventing conflict and civil unrest. CGIAR has conducted extensive research and provided guidance to improve social programs in areas prone to or actively experiencing conflict or civil unrest. For example, IFPRI research in Ethiopia was used to improve the impact and effectiveness of the national safety net program and this safety net program has contributed to a reduction in civil unrest.<sup>52, 53, 54</sup> Recent evidence from a CGIAR project among conflict affected households in Somalia has provided promising insights on strategies to enable households to break the cycle of poverty, which reduces conflict and the need for humanitarian assistance.<sup>55, 56</sup> The CGIAR initiative on Fragility, Conflict, and Migration works in 24 countries to build resilience through effective policy.<sup>57</sup> By helping to reduce human suffering and food insecurity in poor and fragile countries, this research reduces the civil unrest and conflict that threaten American interests abroad and at home and disrupt commerce for American goods, thereby while also protecting the security and prosperity of U.S. citizens and U.S. government spending on emergencies.

### **CGIAR's work helps provide families in Central America with alternatives to migration**

**Encouraging the development of stable and prosperous countries in Central America is essential to addressing migration, and policy evaluation is critical for success.** Policies that encourage development need to not inadvertently induce more people to migrate in the process.<sup>58</sup> Building the evidence base and using this to inform policy design is critical for success. Policy evaluation is necessary to identify the most effective programs or interventions or their combinations. CGIAR research constantly provides evidence to inform policy in this respect.

**Migration flows from Central American countries to the U.S. are large and increasing.** Two thirds of recent legal migrants are from Mexico and Central America, particularly from Guatemala, Honduras,

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<sup>50</sup> Mariner JC, Jones B, Hendrickx S, El Masry I, Jobre Y, Jost C. 2014. Experiences in participatory surveillance and community-based reporting systems for H5N1 highly pathogenic avian influenza: A case study approach. *EcoHealth* 11(1):22-35.

<sup>51</sup> Duy Tung Dao, Coleman, K.K., Vuong N. Bui, Anh N. Bui, Long H. Tran, Quy D. Nguyen, Son Than, Pulscher, L.A., Marushchak, L.V., Robie, E.R., Hung Nguyen-Viet, Phuc Duc Pham, Christy, N.C., Brooks, J.S., Huy C. Nguyen, Rubrum, A.M., Webby, R.J., and Gray, G.C. 2024. High prevalence of highly pathogenic avian influenza A virus in Vietnam's live bird markets. *Open Forum Infectious Diseases* 11(7): ofae355.

<sup>52</sup> Hazell, Peter B. R. and Slade, Roger. 2015. The bang for its buck: Impacts of 40 years of policy research at IFPRI. IFPRI Impact Assessment Brief 1. Washington, DC: International Food Policy Research Institute. <https://hdl.handle.net/10568/150296>

<sup>53</sup> Renkow, Mitch. Slade, Roger. 2013. An Assessment of IFPRI'S Work in Ethiopia 1995-2010: Ideology, Influence, and Idiosyncrasy. Independent Impact Assessment Report 36. <http://dx.doi.org/10.2139/ssrn.2310074>

<sup>54</sup> Hirvonen, K. Machado, E. Simons, AM. 2024. Can social assistance reduce violent conflict and civil unrest?: Evidence from a large-scale public works programme in Ethiopia. WIDER Working Paper 2024/78. Helsinki: UNU-WIDER. <https://doi.org/10.35188/UNU-WIDER/2024/541-7>.

<sup>55</sup> Hirvonen, K. Karachiwalla, N. Leight, J. Rakshit, D. 2024. Graduation from poverty: Can a big push program help conflict-affected households? Evidence from Somalia. IFPRI blog series: Conflict and other shocks impacting food systems. <https://www.ifpri.org/blog/graduation-from-poverty-can-a-big-push-program-help-conflict-affected-households-evidence-from-somalia/>

<sup>56</sup> Sova, C. Zembilci, E. 2023, April 21. Dangerously Hungry: The Link between Food Insecurity and Conflict. Center for Strategic & International Studies. <https://www.csis.org/analysis/dangerously-hungry-link-between-food-insecurity-and-conflict>

<sup>57</sup> CGIAR Fragility, Conflict, and Migration Initiative. <https://www.cgiar.org/initiative/fragility-conflict-and-migration/>

<sup>58</sup> Clemens, M. A., & Postel, H. M. (2018). Deterring emigration with foreign aid: An overview of evidence from low-income countries. *Population and Development Review*, 44(4), 667-693.

Nicaragua, and El Salvador. In addition, the unauthorized immigrant population in the U.S. reached 11 million in 2022 and more than half of the population is from Mexico (37%) and Central America (19%).

**CGIAR research on migration from Central America over the last two decades has identified several key factors that force or push people to relocate, which require special policy attention.**

People in developing countries, particularly those from vulnerable rural areas, are often compelled to leave their homes and undertake dangerous journeys to the U.S. due to limited economic opportunities, unemployment, food insecurity, violence, crime, and exposure to extreme weather events, among other interconnected factors that can amplify risks.<sup>59, 60</sup> Extensive research by CGIAR also highlights that migration decisions are complex and context-specific, as the drivers influencing an individual's choice to relocate can vary depending on local circumstances.<sup>61</sup>

**CGIAR's research shows how to design policies that tackle the root causes of migration, improve life where people are, and reduce migratory pressures.** It is key to identify specific types of policies and interventions that can be more effective in increasing local livelihoods and welfare, while attenuating migration. For example, social assistance programs such as conditional cash transfers can help. For optimum impact, they need to be well-targeted and strictly implemented over a prolonged period.<sup>62, 63</sup> IFPRI has a long history of evaluating these and agricultural livelihood support programs in the region and informing their design.<sup>64, 65</sup> One of the first programs to be evaluated was the Mexican PROGRESA /Oportunidades conditional cash transfer program, which reduced overall migration to the U.S. among households receiving transfers, although there was an initial increase in labor migration among poor, low-skilled individuals.<sup>66, 67</sup> Recently IFPRI has been evaluating the impact of comprehensive agricultural livelihood support policies, finding that comprehensive programs can reduce migration and the intent to migrate, although the reduction is not large enough to be statistically significant.<sup>68</sup> Finally, given that extreme weather events, violence, and crime can also trigger migration to the U.S., CGIAR works on strengthen agricultural insurance, adaptive social protection and other risk management tools.

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<sup>59</sup> Hernandez, Manuel A.; Ecker, Olivier; Läderach, Peter; and Maystadt, Jean-Francois. 2023. Forced migration: Fragility, resilience, and policy responses. In *Global Food Policy Report 2023: Rethinking Food Crisis Responses*. Chapter 7, Pp. 72-81. [https://doi.org/10.2499/9780896294417\\_07](https://doi.org/10.2499/9780896294417_07)

<sup>60</sup> Díaz Baca, M. F., Moreno Lerma, L., Burkart, S., & Triana Ángel, N. (2024). Why do rural youth migrate? Evidence from Colombia and Guatemala. *Frontiers in Sociology*, 9, 1439256.

<sup>61</sup> CGIAR Research Program on Policies, Institutions and Markets (PIM). 2021. Understanding characteristics, causes, and consequences of migration: Contributions from the CGIAR Research Program on Policies, Institutions, and Markets. PIM Synthesis Brief September 2021. Washington, DC: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.134615>.

<sup>62</sup> Diaz-Bonilla, Eugenio; and Centurión, Miriam. 2022. Improving livelihoods and reducing outmigration from the Northern Triangle in Central America: The potential role of cash transfers in expanded social safety nets. LAC Working Paper 27. Washington, DC: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.135912>.

<sup>63</sup> Clemens, M.A. (2022). Do Cash Transfers Deter Migration? IZA Policy Paper No. 191, October.

<sup>64</sup> International Food Policy Research Institute. 2015. Social protection by design. Washington, DC: International Food Policy Research Institute. <https://hdl.handle.net/10568/150185>

<sup>65</sup> International Food Policy Research Institute. 2025. IFPRI's approach to research. IFPRI Brochure. Washington, DC: International Food Policy Research Institute. <https://hdl.handle.net/10568/169160>

<sup>66</sup> Stecklov, G., Winters, P., Stampini, M., & Davis, B. (2005). Do Conditional Cash Transfers Influence Migration? A Study Using Experimental Data from the Mexican Progresa Program. *Demography*, 42(4), 769-790.

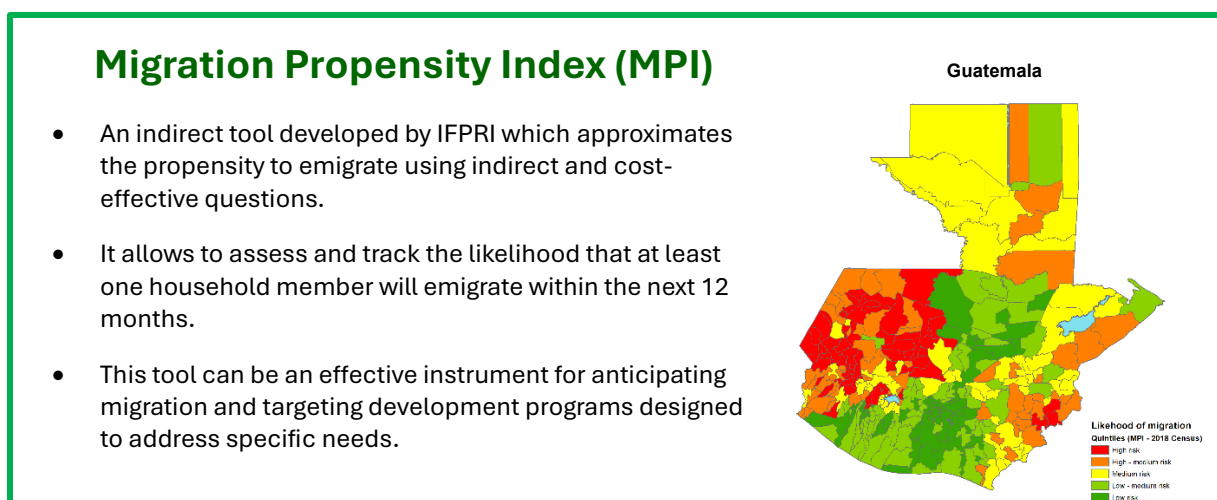
<sup>67</sup> Angelucci, M. (2015). Migration and financial constraints: Evidence from Mexico. *The Review of Economics and Statistics*, 97(1), 224–228.

<sup>68</sup> Hernandez, Manuel A.; Ceballos, Francisco; Paz, Cynthia; and Espinoza, Alvaro. 2023. Feed the Future Guatemala Value Chains Project: Summary of impact evaluation study. Washington, DC: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.137042>.

**Statistical, analytical, and data-visualization tools can play a vital role in informing design.** IFPRI has developed an innovative Migration Propensity Index (MPI) to better measure and track the likelihood of emigration among households.<sup>69</sup> This tool, constructed for Guatemala and Honduras, can be an effective instrument in anticipating migration as well as a crucial first step for the targeting of development programs in origin countries, aimed at improving livelihoods and reducing poverty (Figure 3).

**Training civil servants on how to address migration is also key.** In partnership with the International Organization for Migration (IOM), CGIAR organized national forums and developed a training program for government officials on the links between extreme weather, migration, and human security. In 2024, 54 representatives from key ministries and organizations were trained, enhancing their understanding of timely policy responses and coordination on these aspects.<sup>70</sup>

**Figure 3.**



### CGIAR increases U.S. soft power through U.S. brands and agricultural education

**CGIAR sustains its role in making America safer and stronger by supporting a global alliance of scientists, policymakers, and entrepreneurs.** CGIAR is not only home to thousands of U.S. trained scientists; it is also the instrument through which leaders in policy, research, and business from low- and middle- income countries received training from U.S. universities and build durable ties to the U.S. For 50 years, CGIAR has worked closely with the Land Grant Universities and Colleges to educate agricultural scientists, develop political and business leaders, and build close relationships between the U.S. and countries around the world. These are people who recognize the value of U.S. investments in agricultural research, bring financial resources and scientific expertise into U.S. universities and colleges, and maintain a deep personal connection with U.S. education and with the American people.

**U.S. agricultural companies working with CGIAR are deeply respected across the countries where CGIAR works.** These include well-known U.S. brands such as John Deere, Corteva, etc. CGIAR's continued work with U.S. companies in developing countries increases trust and respect in these partners.

<sup>69</sup> Ceballos, Francisco; and Hernandez, Manuel A. 2020. The migration propensity index: An application to Guatemala. IFPRI Discussion Paper 1953. Washington, DC: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.133849>

<sup>70</sup> CGIAR. 2025, January 7. Training civil servants to tackle climate-induced migration challenges in Guatemala. CGIAR website. <https://www.cgiar.org/news-events/news/training-civil-servants-to-tackle-climate-induced-migration-challenges-in-guatemala/>

**Similarly, public U.S. universities around the country have partnered with CGIAR and land grant universities on agricultural research, to the benefit of U.S. farmers and farmers worldwide.** This partnership allows for knowledge transfer and relationship building on a global scale.<sup>71</sup> CGIAR partners with more than 25 U.S. university partners from all across the country delivering impact as outlined above.<sup>72</sup>

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<sup>71</sup> Westendorf, Elizabeth. 2019, February 28. The benefits of U.S. investment in global wheat research collaboration. Wheat Letter Blog. U.S. Wheat Associates. <https://www.uswheat.org/wheatletter/the-benefits-of-u-s-investment-in-global-wheat-research-collaboration/>

<sup>72</sup> US universities that have collaborated with CGIAR centers include: Boston University, Colorado State University, Tufts University, University of Arizona, University of Florida, University of Washington, Association of Public and Land-Grant Universities, Columbia University, Florida Institute for Human & Machine Cognition (IHCM), George Mason University, Georgia State University, Iowa State University, Johns Hopkins University, Massachusetts Institute of Technology (MIT), Michigan State University, New York University, Spelman College, Texas A&M University, Texas State University, University of Arizona, University of California Davis, University of Illinois, University of Maryland, University of North Carolina Chapel Hill, University of South Carolina, University of California San Francisco, University of Connecticut, Virginia Technical University, Cornell University.

## CONCLUSION

**CGIAR has delivered significant benefits to Americans, and continued investment in this work will make the U.S. stronger, safer, and more prosperous.** Decades of investment in CGIAR have delivered substantial economic, security, and diplomatic benefits for the U.S. that far exceed financial contributions. By driving agricultural innovation and providing evidence-based insights, CGIAR has boosted U.S. farm productivity, expanded export markets, and made food more affordable for American consumers. It has also helped prevent billions of dollars in potential damage from pests and diseases that threaten U.S. food security and farm livelihoods. CGIAR promotes American leadership in agricultural innovation by supplying a large majority of the genetic materials used in U.S. crop breeding and acting as a critical research partner for U.S. businesses and universities. Beyond economic gains, CGIAR strengthens U.S. national security by improving crisis prediction, stabilizing livelihoods in migration-prone regions, and fostering international partnerships that reinforce America's global influence. Looking ahead, CGIAR will continue to enable U.S. innovation, create opportunities for American businesses in emerging markets, and promote stability in global food systems. Continued U.S. engagement remains a strategic and high-return investment that enhances prosperity, security, and leadership on the global stage.

# ANNEX

**Table A. No. and share of U.S. genebank acquisitions of genetic material (accessions) from CGIAR and from countries in Asia, Africa and Latin America**

Crop	Source of genetic material <sup>a</sup>	Time period			Total
		1990s	2000s	2010s	
No. of genebank accessions provided					
Beans	All countries in Asia, Africa and Latin America	756	1,357	1,199	3,312
	CGIAR	91	1,039	1,197	2,327
Rice	All countries in Asia, Africa and Latin America	2,411	534	1,563	4,508
	CGIAR	947	0	1,216	2,163
Corn	All countries in Asia, Africa and Latin America	3,692	762	155	4,609
	CGIAR	308	179	119	606
Barley	All countries in Asia, Africa and Latin America	1,979	211	406	2,596
	CGIAR	1,160	0	337	1,497
Sorghum	All countries in Asia, Africa and Latin America	9,151	1,896	0	11,047
	CGIAR	2,217	1,275	0	3,492
Potato	All countries in Asia, Africa and Latin America	165	67	16	248
	CGIAR	152	65	10	227
Wheat	All countries in Asia, Africa and Latin America	9,556	548	33	10,137
	CGIAR	102	399	1	502
Total (7 crops)	All countries in Asia, Africa and Latin America	27,710	5,375	3,372	36,457
	CGIAR	4,977	2,957	2,880	10,814
U.S. genebank acquisitions from CGIAR as a share of material provided by countries in Asia, Africa and Latin America (%)		<b>18%</b>	<b>55%</b>	<b>85%</b>	

Source: Data compiled from [GENESYS](#) and [USDA National Plant Germplasm System](#) (NPGS) as of February 6, 2025.

<sup>a</sup> Refers to germplasms in which at least one CGIAR breeder or CGIAR Center is listed as either one of the developers, collectors, or donors of the germplasm registered in the [USDA National Plant Germplasm System](#).

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