



Mercy Corps: Sean Sheridan / Ethiopia 2016

OUR AGRICULTURE APPROACH

**Building Smart, Systemically
Transformational and Socially
Inclusive Agrisystems**

OCTOBER 2018



Introduction

More than 815 million people in the world are chronically undernourished.¹ Conflict, exacerbated by climate change, is a key driver of hunger, and gender inequality affects poverty, decision-making and resource use. Despite widespread global hunger, one-third of the world's food—approximately 1.3 billion tonnes—is lost or wasted every year.² These issues, coupled with increasing global population, increasing pressure on land for alternative uses such as biofuels, and depleted natural resources to support food production, lead to huge challenges for the future of agriculture and for feeding this population.

We must do better. If we are to feed the world, we need to increase food production by 60 percent by 2050. We need to urgently address these challenges so that agricultural systems can anticipate climate change, respond to demographic growth and pressure on land and water, and take into account urbanization and globalization in a holistic and concerted way. Transforming agriculture systems to make them smart, systemically transformational, and socially inclusive is central to our vision of eradicating hunger.

Facts & Trends

In the countries where Mercy Corps works, agrisystems face numerous constraints that include small plot size, infertile land, weak business services, and inequitable land and trade policies. Shocks and stresses such as climate change and demographic pressure aggravate these constraints, increasing competition for scarce land and water resources, competition in the global marketplace, and competition for economic opportunities.³

How can we turn these shocks and stresses into opportunities for systems change and inclusive growth? How can we help smallholder farmers adapt and transform so that they become resilient?

Climate variability and environmental degradation¹¹ are the two most likely shocks people face worldwide. Yet both can also be drivers for change. Communities can work together to adapt

Food production needs to increase by 60 percent by 2050 if we are to feed the world.

Of the world's farms, 85 percent are smaller than 2 hectares.¹

About 500 million smallholder farms worldwide produce over 80 percent of the food consumed in the developing world.⁴

Agriculture is the main driver of deforestation: In 2016, it contributed to 30 million hectares of global tree cover loss (up 51 percent from 2015).⁵

Climate change threatens to cut crop yields by 25 percent.⁶

By 2030, nearly 60 percent of the world's population will live in urban areas.

The value of urban food markets in sub-Saharan Africa is projected to grow from USD 150 billion to USD 500 billion between 2010 and 2030.⁷

Agriculture is the single largest employer in the world.¹

Women represent 43 percent of agricultural labor yet have unequal access to land, technology and markets.⁶

One-third of humanity today is between 15 and 34 years old.⁸

The average age of farmers worldwide is 60.⁹

Nearly one-third of global food production—1.3 billion metric tonnes of food—is lost or wasted.¹⁰

1 FAO 2017, State of Food and Agriculture.

2 FAO, Global Food Losses.

3 Relief Web 2017.

4 IFAD and UNEP, Smallholders.

5 Weisse and Goldman, Global Tree Cover Loss

6 FAO 2011, The Role of Women in Agriculture

8 FAO 2017, Global food losses and food waste – Extent, causes and prevention

8 The Chicago Council on Global Affairs, Youth for Growth.

9 FAO, Food Security for Sustainable Development.

10 FAO 2017, Global food losses and food waste – Extent, causes and prevention

11 Extreme weather events rank No. 1 and No. 2 in terms of likelihood and impact. "Environmental risks have grown in prominence over the 13-year history of the Global Risks Report, and this trend continued. ... Among the most pressing environmental challenges facing us are extreme weather events and temperatures; accelerating biodiversity loss; pollution of air, soil and water; [and] failures of climate-change mitigation and adaptation." World Economic Forum, Global Risks Report 2018.

and diversify their production; they can also manage and enhance their ecosystem in the face of these changes. All agrisystem actors can embrace new and more efficient technologies, and policymakers can support business and environmental regulations that promote the equitable management of land and water.

The **youth bulge, demographic pressure** and **gender dynamics** contribute to unequal access to land and resources. Yet young people can provide a new engine for growth and catalyze agricultural transformation. If young people possess appropriate skills, engage in agricultural markets and generate a decent income, they may be less likely to migrate to the cities or join extremist groups, leading to stability and increased food security.¹² More specifically, increasing women's and girls' control over agricultural outputs has shown to increase long-term food security because women and girls are more likely to spend additional income on nutritional food and health-related expenses.¹³

Rural-urban migration¹⁴ depletes the agriculture workforce in rural areas and increases demand for foodstuffs in urban areas. But as urban demand for higher-value agriculture products increases, so do opportunities.

The **globalization of the agricultural market** demands timely, high-quality goods; creates competition for consumers; and adheres to stringent policies and norms. It can also represent untapped market opportunities for producers of high-value products and force agrisystem actors to build new capacities and networks. In these environments, **technology advancements** can enable and accelerate agrisystem transformation by improving consumer nutrition, increasing supply chain efficiency and transparency, and boosting farmer productivity and profitability.¹⁵

It is up to us to leverage the positive aspects of these trends to help communities adapt, learn and transform so that they can generate sustainable agricultural income and become more resilient.



Mercy Corps: C. Robbins / Guatemala 2015

12 Mercy Corps, Can Economic Interventions Reduce Violence?

13 Population Council, Youth for Growth.

14 Rural-urban migration is due to either lack of opportunities or insecurity in the (rural) area of origin.

15 World Economic Forum, Innovation with a Purpose. Examples include improving nutrient content of processed food; gaining communication time in the sale of agricultural products and reducing waste; and decreasing risks and waste through irrigation, cold storage or mechanization.

Core Aspirations

Mercy Corps strives to make agrisystems **smart, systemically transformational and socially inclusive.**

Smart: We design and implement agriculture programs so that agrisystems can become resilient to shocks and stresses while integrating the latest technologies to become more efficient.

Systemically transformational: Agrisystems depend on the agroecological context (wet or arid) and the lifestyle of the people in it (pastoralists, agropastoralists or sedentary farmers). After careful analyses, we create conditions that facilitate systemic change and create positive, well-governed environments in which people are willing and able to invest and innovate.

Socially inclusive: Women and girls are often the primary source of agricultural labor and have a substantial role in the trade and production of agricultural products. Certain ethnic groups have developed skills and knowledge around specific agricultural markets and/or are not allowed to participate in certain markets. Displaced populations can bring new skills to complement those of the local population, but they rarely have access to land. We ensure that all people from different geographic, ethnic, religious or gender backgrounds can fully engage in agricultural systems and thrive.



Mercy Corps facilitates agricultural systems that are:

SMART. Ecologically resilient and economically efficient.

SYSTEMICALLY TRANSFORMATIONAL. Act at each level of the system.

SOCIALLY INCLUSIVE. Include age, gender and ethnicity.

Priorities for Impact

Focusing on agrisystems as a whole, we believe that:

IF we support women, men and young people in accessing, protecting, enhancing and better managing land and water (*green growth*) to render agroecological resources more productive in the face of climate change and demographic pressure;

IF we professionalize and grow agri-enterprises (*agribusiness solutions*) to render agricultural markets more efficient and nutrition-sensitive within the broader global market;

IF we engage young people in agricultural systems (*youth drive*) to empower them economically so they can leverage the reality of rural-urban migration into an opportunity; and

IF we, all the while, harness technology;

THEN agrisystems will be smart, systemically transformational and socially inclusive, thus sustainably raising incomes, improving food security and nutrition, and contributing to social cohesion and stability.





Mercy Corps: E. Millstein / Syria 2017

› AGRISYSTEMS AND CONFLICT

Conflict, often violent and recurrent, is a dominant characteristic of the complex environments in which Mercy Corps operates. Most of today's armed conflicts are concentrated in regions where populations are heavily dependent on agriculture. These conflicts disturb the traditional agricultural systems, leading to collapse of production levels, distortion of agriculture markets, and, ultimately, food insecurity and hunger.

We need to act on three fronts: We must prevent the complete destabilization of agriculture systems during conflict, help rebuild these agriculture systems early so that livelihoods can resume, and prevent these agriculture systems from fueling further conflict.

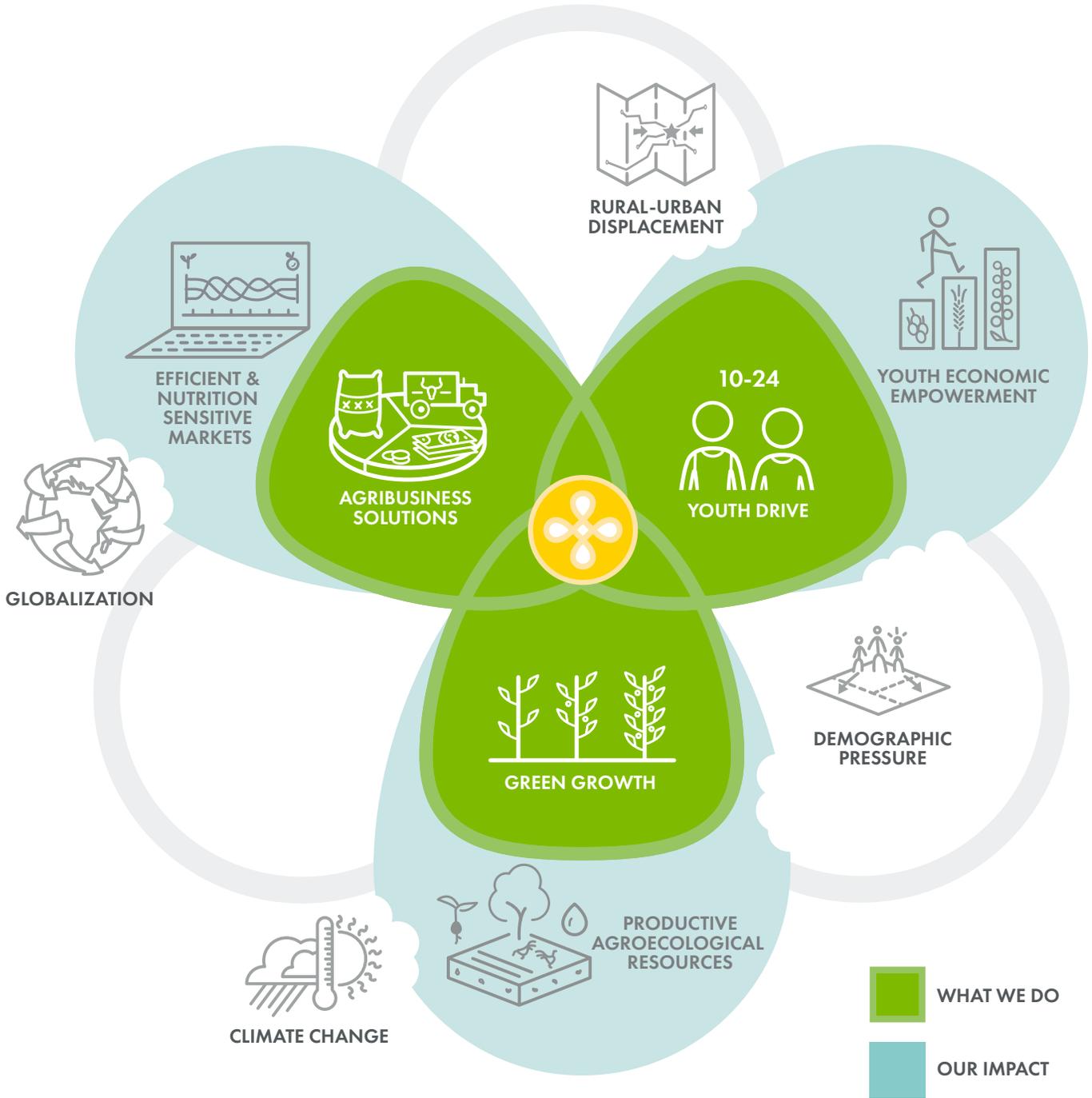
Our Customers and Partners

Our work engages a broad range of private, government and civil society actors. We work with this diverse group so that it can foster an enabling environment in which male and female producers, “agripreneurs” and young people can engage and grow, at their own pace, in the agrisystem. We specifically:

- › Help female and male **subsistence producers** increase their productivity and consumption of nutrient-rich food.
- › Support vulnerable, commercially oriented individuals in developing capacities to become successful **commercial agripreneurs**.
- › Develop the capacities of **young people** so they can better ensure the food security of their families.
- › We also develop and build on the expertise of our **technical agriculture partners** to deliver high-impact and innovative programs. Mercy Corps counts the following among its global technical partners:



Smart, Systemically Transformational, and Socially Inclusive Agrisystems





GREEN GROWTH – Ecological Intensification and Inclusive Governance of Natural Resources

Expected impact: Productive agroecological resources

Land and water are the backbone of agriculture systems. To thrive, producers need fertile soils and adequate water at critical periods. They need to use climate-resilient seeds and breeds and follow rational methods for fertilizing crops, eradicating pests and grazing animals. And they need enabling land and water policies in place and enforced.

Mercy Corps focuses on:

- › *Improving practices and behaviors:* Mercy Corps promotes integrated, sustainable and climate-resilient approaches to maximize land use and decrease input use.¹⁶
- › *Improving access to land and water:* With a focus on women, youth and displaced/returnee populations, Mercy Corps supports smallholder farmers and herders in securing long-term access to land and water.
- › *Supporting community-based management:* Mercy Corps supports dialogue and sustainable arrangements among land and water users, whether they be pastoralists or sedentary farmers.
- › *Developing social cohesion:* Mercy Corps leverages, when feasible, its extension work, market-based dialogue platforms and economic incentives as conduits for conflict mitigation and resolution and the building of social capital.
- › *Leveraging technology:* Mercy Corps designs sustainable irrigation models based on data-driven decision-making, creative financing options and renewable energy use.

› MERCY CORPS IN THE ARID LANDS

More than 65 percent of Mercy Corps' agriculture portfolio is in the arid lands, requiring us to focus on water management, land regeneration, and resource-related conflicts and governance. Adapting our programs to sedentary farmers, agropastoralists and nomadic pastoralists has allowed us to build the resilience of almost 2 million smallholders over the past three years.



Mercy Corps: G. Bugbee / Ethiopia 2005

¹⁶ Mercy Corps, "Resilience Design."



Mercy Corps: C. Nelson / Niger 2012

Agriculture Systems and Nutritional Pathways



Healthy soils increase food productivity and the nutritional content of the food produced. Our Green Growth helps increase volumes and the quality of food production, and contributes to stabilize food production over time.



Improved market flows and trade will help maintain nutrient content from production to consumption. Our Agribusiness Solutions help increase the quality of food traded and consumed.



Young men and women's engagement in agriculture systems will help increase revenues and promote a change of behavior of future generations around healthier diets. Our Youth Drive will ensure families use their income or their production to increase their consumption of healthy and diversified food.



AGRIBUSINESS SOLUTIONS – Professionalization and Growth of Agri-enterprises

Expected impact: Efficient and nutrition-sensitive markets

We support the development or strengthening of efficient production and service agri-enterprises. We also recognize that individual agri-enterprises operate as part of an agriculture market system. In our effort to render agrimarkets more efficient, we improve linkages between actors and strengthen the enabling environment to address underlying constraints that inhibit participation of the most vulnerable. We define efficient markets as those that (1) respond to the demand in quality, quantity and price; (2) generate acceptable revenues for all actors; (3) maintain nutrients from production to consumption; and (4) are resilient to market shocks.

Specifically, Mercy Corps facilitates the development and professionalization of agri-enterprises, including input suppliers, individual producers and producer groups, traders, processors, and service providers. Through private and public sector engagement, we facilitate the following:

- › Diversification of products and services offered so that they respond to the needs of the market and the most vulnerable, including women and young people, and decrease risks
- › Development of *last mile solutions* to help remote populations access products and services
- › Maximization of *post-harvest value* to reduce food waste, increase shelf life and nutritional content through processing and transformation, and increase the return on investment for all market actors
- › Enforcement of *quality and food safety standards*, including maximizing nutrient content throughout the supply chain to improve consumers' nutritional intake
- › Development of *new market linkages* to help all levels of the supply chain benefit and increase inclusion

› DAIRY MARKET IN GEORGIA

The Alliances Lesser Caucasus Programme is a Swiss Agency for Development and Cooperation market development project working in the dairy, beef, sheep and honey subsectors.

Adopting a market system development approach, Mercy Corps developed a hygiene manual to inform the dairy industry of new food safety regulations; facilitated machinery retail and leasing; supported the development of feed mills; fostered the development of commercial artificial insemination services and bull rental services; improved regional livestock markets, slaughterhouses and transport facilities; supported cheese processing through transport and storage; and developed a market price information system through marketplace screens and newspaper supplements.

The impact is unequivocal: The 40,000 producers participating in the project increased their income on average by 21 percent, 355 full-time jobs were created, and 426 business entities in the livestock market (including bull services and veterinarian pharmacies) have generated USD 8.4 million in net attributable income change.



YOUTH DRIVE – Age-Appropriate Youth Engagement

Expected impact: Economically empowered youth

The number of urban consumers is expected to grow from 3.5 billion to 6 billion in 40 years. The average age of producers is 60. These trends represent a massive untapped market for the 61 million unemployed youth in emerging and developing countries.

Mercy Corps focuses on:¹⁷

- › Developing *intentional programming* for a range of age and gender groups, including youth-centered design and youth-led local, urban and export market assessments
- › Strengthening *the capacity of adolescent girls (10-19) in production and management of produce* so they can contribute to their families' food security and revenues
- › Developing the *capacity of young people (15-24) to develop profit-making, resilient agri-enterprises* along the value chain
- › Strengthening *social capital*, including working with parents and gatekeepers, facilitating mentorship and life skills development, and embedding protection principles
- › Facilitating *private sector engagement* in job creation and supply of youth-appropriate products and services
- › Leveraging *technology and social media* for more efficiency in linking rural production to urban markets

› AROUND THE WORLD...

In Niger and Kenya: We work with adolescent girls to develop their lifeskills and technical skills to manage livestock.

In Colombia: We collaborate with Farmer Support Centers to leverage resources and best practice training for young female coffee farmers.

In Indonesia, Kenya, Tanzania, Zambia, Zimbabwe and Uganda: We provide young smallholder farmers with digital last mile solutions, including weather, market and agricultural production information.

In the Democratic Republic of the Congo: We facilitate entrepreneurship by young people to fill gaps in the market, including transport services, tree nurseries and food transformation.

The Technology Corner

*To promote the delivery of last mile solutions, Mercy Corps supports the **digitalization of farming services**, including rural advisory services, financial services, climate and market information, and trade platforms. Grasping the latest developments in the countries where we work and supporting the nascent digital economy, Mercy Corps, in partnership with mobile network operators, facilitates the development of digital platforms that provide bundled services to smallholder farmers.*

***Satellite and drone data** allow us to make more accurate and informed decisions at the policy, community and farm levels. Through Mercy Corps' partnership with satellite and drone providers, we can more accurately target the zones where we should intervene based on vulnerability criteria; monitor, evaluate and adapt our agriculture program; and influence policymakers in their decisions.*

*Finally, combining the needs for **post-harvest technologies** and advancements in the use of **alternative energy**, Mercy Corps works with its partners to develop and field-test technology including solar irrigation, cold storage, Bio-based/biodegradable packaging and processing and transformation.*

¹⁷ Mercy Corps, Young People and Agriculture.

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About Mercy Corps

Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within. Now, and for the future.



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