

# The Role of Advocacy and Activism for Achieving the SDGs in Food, Health, and Social Justice



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## 1 Introduction

In 1995, Chef Alice Waters had a simple idea. Next to her restaurant, Chez Panisse, in the foodie enclave of San Francisco, she started a garden at King Middle School. It certainly wasn't the first school garden in San Francisco and the idea of encouraging students to know where their food comes from was not uncommon, particularly in California. But Waters' dedication and passion for creating an environment where children could learn about math, social studies, science, and English from a school garden while also learning how to cook what they're growing—and also eat and enjoy that food—helped spark a revolution among educators across the United States and the world. There are now more than 5500 Edible Schoolyard Projects in 53 U.S. states and territories and 64 countries across the world (Mapping the Movement 2018).

And what may be Waters' most revolutionary idea for transforming the food system is now underway. The chef and activist, who is also the Vice President of Slow Food International, wants to change how schools across the U.S. procure food for school lunch programs. Her idea is to use the already existing National School

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Lunch program, which spends about US\$13 billion every year to feed over 30 million children (Campbell and Cove Delisle 2015).

Thankfully, visionaries like Waters are all over the world, innovating in kitchens, fields, board rooms, laboratories, and town halls and coming up with ways to advocate for a food system that does more than just fill people up, but actually nourishes the world.

These farmers, activists, and food leaders are using their voices—and their smart phones and lap tops—to create synergies, find common ground, and build a movement that goes beyond fields and kitchens and helps change policy at the local, national, and international levels. Individuals creating healthy and dynamic food system that is both economically viable and environmentally sustainable are showing decision makers at every level that it is possible to achieve the Sustainable Development Goals.

## 2 Farmers in the Drivers' Seat

Globally, women make up 43% of all farmers—in India, they make up half of the agricultural labor force. Unfortunately, these women—and millions of other women farmers across the world—often lack access to education, land, credit, and inputs. And, women farmers also tend to be underrepresented in farmers groups and associations, making it harder for their voices to be heard.

Self-employed Women's Association (SEWA) is bringing women, including women farmers and food processors and sellers, together to work collectively for change.

SEWA is a country-wide network of cooperatives, self-help groups (SHGs), training centers, and banks that help women gain access to education, financing, and training.

Today, the organization has more than 1.3 million women members—54% of these members are small based in rural areas, but membership also includes vendors and others who sell among other things, food, door to door.

They've built a training center and farm outside Ahmedabad, India and are training women about agroecological practices such as vermiculture, rainwater harvesting, and growing indigenous crops, aligning with the SDG 12 that focuses ensuring the sustainable consumption, production, and preservation of water resources.

SEWA goes a step further, training urban entrepreneurs to market and sell SEWA's products—rice, lentils, and spices—under SEWA's own label to low-income women slum dwellers. These products are higher quality than most of the products available and the sellers are able to build a reliable customer base, giving them higher incomes. To move women out of poverty says Director Reema Nanavaty, they need “access to markets, access to finance, and access to technical services” (Nanavaty 2016).

The role of women in agriculture is so important that the FAO reports that if women had the same access to resources—land, credit, inputs, education, and extension services—as men, they could lift up to 200 million people out of hunger (Nierenberg and BCFN 2018). And further, empowering women can help achieve multiple SDG goals. Greater gender equality increases economic resources to women, which can lift whole families—and entire generations—out of poverty, putting an end to global poverty which is SDG 1.

But to ensure that women have the resources they need, governments and policy-makers as well as civil society and businesses must push for women’s equality in all aspects of their lives.

Organizing women farmers “brings collective strength, and it increases the bargaining power of the women farmers” (SEWA’s Director 2016), says Nanavaty. SEWA is empowering women and helping to achieve greater gender equality by strengthening the capacity of women in a traditionally male-dominated sector.

And the importance of farmers organizing together isn’t only beneficial for women. Organizations around the globe have been organizing rural and urban farmers for decades in ways that help improve food security, raise incomes, prevent loss and waste, and cultivate equality.

In the 1960s, Delores Huerta and César E. Chávez founded the National Farm Workers Association, now known as the United Farm Workers of America, the largest farmers union in the United States. Huerta, a union organizer and feminist movement leader, is largely credited with securing disability insurance for farm workers in California and helped implement the Agricultural Labor Relations Act of 1975, which allowed for collective organizing and bargaining among farm workers in California. With her leadership, she created a path for the future of organized farm worker advocacy. Even today she fights for the rights of farmers, women, and children (Dolores Huerta).

Two decades later, La Via Campesina (LVC), or ‘The Peasants Way’, established a transnational movement of peasants and family farmers founded on the basis of autonomy, linking a common identity of social struggle (Martínez-Torres and Rosset 2010). LVC has been working towards achieving SDG 10 long before it was even established. By bringing the voices of 182 member organizations in 81 countries to the table, they have helped reduce inequalities and break down barriers. The campesinos are a group of “social defenders who struggle for land, the territory, natural resources and dignity” (Honduras: interview 2016), in Honduras and all over the world, says Rafael Alegría, regional coordinator for La Via Campesina in Honduras and Central America.

LVC has become the voice of the peasants and a political force where NGOs have not been successful. The movement has helped show that food is more valuable than a commodity for trade, and that agriculture is a stimulus for local markets. Bringing communities closer together can help preserve rural livelihoods, and is a key component of building sustainable agri-food systems. Maintaining rural livelihoods is essential to promoting productive employment and decent work, achieving SDG 8.

Engaging small farmers in a way “that is not primarily profit-oriented, but to keep soil fertile, keep bio-diversity and attain food sovereignty” (Alten Post Interview 2015), says General Coordinator Elizabeth Mpfu, will help farmers across the world.

Over the last four decades, LVC has formulated commissions and campaigns representing climate change, human rights, youth, gender violence and equality, capitalism and agrarian reform, all with the goal to reach equality by empowering those most vulnerable.

And it’s not only farmers in the Global South who benefit from organizing together. The National Farmers Union (NFU), the second largest organized farmer union in the United States, are working tirelessly to defend sustainable farming practices. President Roger Johnson says, their “focus is on the farmer, not the type of farmer” (Fireside Chat 2018a), although he also explains that the challenges farmers face “are more substantial for young farmers” (Fireside Chat 2018a). NFU is currently organizing around the upcoming, and highly debated U.S. Farm Bill, which requires heavy bipartisan compromise for the ongoing funding of programs that support large-scale farmers, but also preserve the integrity of sustainable farm practices. Johnson says, there has always been “a focus on trying to do the right thing about our resources” (Fireside Chat 2018a), which is a significant focus of NFU’s lobbying efforts.

And in rural Ohio, Baldemar Velasquez founded the Farm Labor Organizing Committee (FLOC) in the 1960s to organize migrant farmworkers, giving them a voice in the political process and helping them address industry wide challenges within the supply chain. “The model of advocacy falls short because it fails to empower the actual workers. What FLOC is doing is building institution amongst the farm workers. It’s wresting power from major corporations and big advocacy groups, and giving it directly to the workers” (Five Questions 2015), he says. Today, thousands of farmworkers between Ohio, North Carolina, South Carolina, and Mexico have come together to increase wages, improve housing conditions, and direct collective bargaining agreements.

Farmer led organizations are demonstrating the importance of ensuring sustainable production and consumption practices. They are key to protecting life on the land, which helps reach SDG 15, and ensuring available, safe, and sustainable management of water for all, which SDG 6 aims to improve. These organizations are promoting inclusivity by giving a voice to those working in the agricultural sector and empowering individuals to engage in the decision making process that ultimately will impact their lives and the future of the planet (Table 1).

### 3 Advocating for Change

In 2016, Sam Kass, former White House Chef and Senior Policy Advisor for Nutrition under President Barack Obama, gathered food justice leaders and social entrepreneurs with the goal to shift the conversation around health, nutrition, and

**Table 1** Farmer led organizations across the world

Organization	What they do	Focus area	Impacts
<b>Reseau Organisations Paysannes et des Producteurs Agricoles de l'Afrique de l'Ouest (ROPPA), West Africa</b> (West Africa 2018)	<i>ROPPA is a network of West African producers who advocate on behalf of farmers from 13 countries in the region. The organization is ensuring that all voices are included in policy and funding decisions that impact farmer livelihoods</i>	<i>ROPPA is a member of the Economic Community Of West African States (ECOWAS), the West African Economic and Monetary Union and the Permanent Interstate Committee for Drought Control in the Sahel</i>	<i>ROPPA finalized a national program to transform itself and its national members into mature and autonomous organizations.</i>
<b>Prolinnova, Latin America, Africa, Asia</b> (About Prolinnova 2018)	<i>Prolinnova is an international, multi-stakeholder NGO that promotes local innovation processes in ecologically-oriented agriculture and natural resource management. They seek to involve local farmers in agricultural research and development to create better ways of farming</i>	<i>Prolinnova works with smallholder farming communities in Africa, Asia, and Latin America</i>	<i>The Prolinnova network builds on and scales up farmer-led approaches to participatory development that integrates indigenous and scientific knowledge</i>
<b>National Family Farm Coalition (NFFC), United States</b> (NFFC)	<i>The National Family Farm Coalition (NFFC) represents family farm and rural groups who experience deep economic challenges in rural areas</i>	<i>NFFC focuses on empowering family farmers and organize their work through task forces, such as a Trade Task Force, Farm and Food Policy Task Force, and Credit Task Force</i>	<i>NFFC has been the primary family farm voice since the 1980s. They have provided leadership and a strong family farmer presence at international meetings, rallies, and press conferences</i>
<b>Asian Farmer Association for Sustainable Rural Development (AFA), Asia</b> (About AFA 2018)	<i>The Asian Farmer Association for Sustainable Rural Development (AFA) is a regional alliance of national federations and organizations of small scale women and men farmers and producers</i>	<i>AFA helps promote the ownership rights of family farmers over land, water, forests, and seeds. They work towards building rural farm communities that are self-reliant, educated, happy, and have control over their land and basic resources</i>	<i>In Cambodia, AFA has supported the System of Rice Intensification, helping farmers increase income and productivity, maintain ownership of local seeds, and decrease their dependence on pesticides to enhance soil fertility (Agroecology and Advocacy 2011)</i>

(continued)

**Table 1** (continued)

Organization	What they do	Focus area	Impacts
<b>MASIPAG, Farmer-Scientist Partnership for Development, Philippines</b> (About MASIPAG 2018)	<i>MASIPAG is a farmer-led network of organizations, NGOs, and scientists working towards building farmer's control over resources, production, and land. Their goal is to improve the quality of life of vulnerable farmers</i>	<i>MASIPAG collects, identifies, and Multiplies cultivars of rice and corn, indigenous vegetables, poultry and livestock breeds. They ensure that collected species and varieties are maintained in on-field seed banks for farmers' access</i>	<i>MASIPAG has reached over 30,000 farmers in more than 60 provinces, collecting over 2000 rice varieties</i>
<b>Eco Ruralis, Romania</b> (Eco Ruralis)	<i>Eco Ruralis is an association of peasants, organic farmers, and academics advocating for peasants rights. They manage large campaigns including, Agrobiodiversity, Land Rights, and Short Food Chains</i>	<i>Eco Ruralis leads policy efforts to prevent land grabs. They also coordinate with the WWOOF Romania, an international volunteer program to support organic and conventional farms</i>	<i>Eco Ruralis has over 1800 members across Romania, which includes a diverse network of small-scale food producers, activists, and consumers</i>

the planet from a list of ideas into successful action. He had a vision—to build a bridge between businesses, community organizations, and government entities with individuals and resources. It sounded simple, but he knew that turning goals into reality would require greater cohesion and stronger partnerships across the food system hierarchy (Nierenberg and BCFN 2018).

Kass is the founder of TROVE, an organization of experienced leaders and entrepreneurs who understand the important connections between the health of people and the health of the planet. Together, they invest, advise, and provide communication strategies to help companies across the world create a more sustainable future for the planet.

Kass worked closely with First Lady Michelle Obama while in the White House. In 2009, they built the White House's first large-scale vegetable garden, which provided fresh produce for meals in the White House as well as local food banks. During the Obama administration he used his national presence to raise awareness about issues around food and nutrition. "You look around our country and you see that we have a lot of major challenges, the origin of which is food," he said, "It's not a big step to think about: What am I doing? How is that affecting this problem? How am I helping?" (Nierenberg and BCFN 2018, p. 116). While in the White House, he built the bridge between the food industry and health advocates, and then carried these lessons onto his new firm, TROVE.

Kass leadership in the White House contributed to the 2010 passage of the Healthy, Hunger-Free Kids Act, which aims to reduce the prevalence of childhood

obesity in the United States through the improvement of school meals. The United States Department of Agriculture (USDA) revised the school meal standards to focus on increased access to healthy and fresh foods throughout the school day (Fact Sheet 2017). Kass helped shed a new light on childhood obesity and generate deeper public interest in school food and nutrition policy. “I believe in thinking big but that the only way to achieve lasting change is to approach issues with a deep sense of pragmatism” (Nierenberg and BCFN 2018, p. 116), says Kass. His leadership and contributions to the school food system help to set a new baseline in the United States and this work can be essential in ensuring that the SDGs 2 and 3, the elimination of hunger and the promotion of healthy lives and well being at all ages, is accomplished.

Organizations like Let’s Move and others from all over the world, are transforming methods of food production into more environmentally, socially, and economically sustainable ways. These organizations are building systems, developing strategies, and becoming leading models within the food system.

The James Beard Foundation (JBF) provides a platform to celebrate and cultivate both chefs and food justice leaders. Their ‘Impact Programs,’ which are dedicated to making a “more sustainable food system through education, advocacy, and thought leadership” (JBF Leadership Awards 2018), cross a diverse range of issues in an effort to actively create a stronger food system.

As Susan Ungaro, former president of JBF, explains, “there is no doubt that the American public is fascinated with celebrity. When I came to the Foundation, I felt the tipping point even then, over a decade ago. Chefs were becoming America’s most likable celebrities...When a chef goes in front of a group of school children and talks about why you need to eat more fruits and vegetables, kids listen” (Susan Ungaro’s Reflections 2017c).

Impact Programs, like Chef Action Network (CAN), are working with chefs to unite around critical issues and provide an organized platform for leadership and advocacy. Chefs from all over the world are taking more responsibility for their role in achieving the fourteenth SDG, by using their kitchens to ensure greater conservation and sustainability of marine life and resources. “In just over three years, we’ve trained hundreds of advocates and seen chefs make a real difference in policy fights around child nutrition, local fisheries, global food security, and so much more” (Chefs in the Fight 2016), explains Katherine Miller, Vice President of Impact and Executive Director of CAN.

“Chefs will be important stakeholders in achieving the U.S. government’s goal of 50 percent reduction of food waste by 2030 by addressing waste in their day-to-day business operations and by leveraging their visibility to help educate consumers on creative ways to reduce waste at home” (James Beard Foundation 2016), says Kris Moon, Chief Operating Officer and thought leader behind their Chefs Boot Camp for Policy and Change. Reducing food waste is necessary for achieving SDG seven, working to move the world towards more affordable, reliable and clean energy. Unused food can be repurposed for clean, renewable energy and the Foundation is leveraging the power of the celebrity chef to drive policy change that impacts the food system

When Ungaro joined JBF she “wanted to see the Foundation become the center of thought leadership on food” (Reflections 2017), and through their programs and awards, they cast a spotlight on the people creating joy with food. “One thing that’s great about chefs is they actually interact at every point in the food system” (Chefs in the Fight 2016), says Miller. The foundation fosters inclusivity by honoring not only chefs, but all people working to build better health and sustainability, particularly spotlighting women and people of color.

And while promoting these leaders is important, policymakers need to be held accountable for their impact—both positive and negative—on sustainable cities and communities. Food Policy Action (FPA), founded by celebrity chef Tom Colicchio and environmental activist Ken Cook, works to “score” policy makers on food and agriculture legislation and policy.

They developed a publicly available tool called the [National Food Policy Scorecard](#), which tracks activities in the United States (U.S.) Congress. The goal is create more transparency between policymakers and the public. “Voters need a clearer sense of where their legislators stand” (Food Policy Report 2017a), explains Cook. Keeping our institutions accountable to citizens, even in the realm of food systems, helps to achieve SDG 16 and ensures effective, accountable, and inclusive institutions at all levels. The scorecard promotes higher accountability of legislators, which translates into a network of informed and mobilized citizens who feel empowered to demand a healthier, sustainable, and more equitable food system.

In Cook’s keynote address at the 2018 Food Tank Summit in Seattle, he explains that Food Policy Action was founded to “create a league of conservation voters for food. Across the food movement we wanted to hold politicians accountable for how they voted on food. And so we started keeping score” (Food Tank Keynote 2018c).

Now, as the new U.S. Farm Bill is negotiated in Congress, FPA is mobilizing stakeholders—organizations and industry groups—to unite and voice their opposition to drafts of the Bill that threaten the livelihoods of small farmers and our most socially vulnerable citizens. “We really need to look at what we are investing in through the Farm Bill and ask: Is this actually good for our health? Are we really making sure that our food is safe? Are we making sure that good food is available to everyone, not just the wealthy?” (Food Policy Action 2018b) says Executive Director, Monica Mills.

And from Cook’s perspective, “the most important thing we can do is to focus on things that are at the grassroots level. And the most important thing we can do is to focus on the things at the national level. And the most important thing we can do on everything in between” (Food Tank Keynote 2018c). FPA is working to empower and mobilize citizens through greater transparency. They are changing the way individuals and organizations understand policy and providing the tools to help them make a difference.

Like the Edible Schoolyard Project, Slow Food’s work in sub-Saharan Africa is changing the way people grow, eat, cook, and value food.

The Slow Food Foundation for Biodiversity supports what is now called the 10,000 Gardens in Africa project, which initially launched in 2010 with the goal to build just 1000 gardens. Within 4 years, they realized overwhelming success and



re-launched the program with the goal to build 10,000 gardens. These gardens are more than a source of food for the community; they preserve traditional food systems, empower small farmers, and promote food sovereignty.

Eddie Mukiibi, Vice President of SFI says, “the greatest obstacle to food access and distribution is lack of political will by those in authority to do the right things for their people,” and “the 10,000 Gardens in Africa project works to revive hope and return the power of food production to African communities” (Gardens are Emblems 2017b). The philosophy of SFI is that food should be good, clean, and fair and the 10,000 Gardens in Africa project has “created an important network that is growing and working to change Africa, to offer our children a future of peace and justice” (Slow Food Refocuses 2014), Mukiibi says, granting these basic food rights for all.

The gardens are a physical manifestation of the food revolution in Africa. They represent a path towards healthy, safe, and accessible food now and in the future.

And it’s not only gardens in Africa that are building community connections and promoting food justice. Kimbal Musk, restaurateur, philanthropist, and entrepreneur is on a mission to expand access to real food for all citizens across the United States. Concurrently Mukiibi and Musk are creating more sustainable and resilient communities and cities across the world, making SDG 11 a greater reality.

Founder of The Big Green (formerly The Kitchen Community), Musk is working to create a replicable and scalable model for establishing school gardens. By transforming the culture around school food, Musk, like Alice Waters, is using gardens to connect children to their food and foster stronger food literacy. And like Waters’ vision for an edible education for all, he has built a model for “learning gardens” with a force to mobilize real impact.

The Big Green builds no fewer than 100 gardens in a community to maximize impact and leverage efficiencies and resources that can only be acquired at this scale. At this level, they are able to create a regional shift in food culture, creating deeper and longer-term changes. Big Green currently reaches more than 250,000 students across the United States, and is working to double their impact by 2020. Musk is inspired by the power of education within the natural world and committed to strengthening these connections for children in effort to create a better educated, stronger community, and healthier nation. Both Slow Food Foundation’s 10,000 Gardens in Africa and The Big Green’s Learning Gardens are being cultivated in urban environments, helping to make those areas safer, more resilient, and more sustainable for people to live in, especially children.

## **4 Cultivating the Next Generation of Agricultural Leaders**

Farming populations around the globe are aging. In the U.S., the average of farmers is 58 years old (Census Highlights 2014) and in Africa, it’s 60 years old (Contribution to the 2014 United Nations ECOSOC 2014). Unfortunately, most youth don’t see food and agriculture as a career opportunity. It’s something they feel forced to do,

**Table 2** Ages of Farmers Across the World

Region	Average age of farmer	Percent of farmers (out of total employment) (Employment in Agriculture 2017a)	Percent of population 15–29 years old (Population 2017b)
United States	58.3 (Census Highlights 2014)	2	41
Romania	55 <sup>a</sup> (Family Farming 2013)	23	35
China	56.6 (The Impact of Ageing 2015)	18	42
Ghana	55 (Youth in Agriculture)	41	55
Afghanistan	47 (Agriculture and Food 2003)	62	59
Australia	52 (Farm Facts 2012)	3	39
EU-28	40–64 <sup>b</sup> (Farmers in the EU 2017)	5 (Farmers in the EU 2017)	17.4 (Children and Young People in the Population 2018)

<sup>a</sup>70% of farmers of small farmers (the majority in Romania)

<sup>b</sup>Over 59% of farmers fall in this age range

rather than something they want to do. Many schools in Uganda use farming as a form of discipline, creating a stigma around agriculture as a vocational choice (Edward Mukiibi's Project DISC 2013) (Table 2).

Fortunately, that's changing—with big and small organizations, research institutions, universities, and foundations investing in the resources, education, and investment to train the next generation of not only farmers, but agricultural business leaders, policymakers, activists, and storytellers.

The Barilla Center for Food & Nutrition Young Earth Solutions (BCFN YES!) initiative, for example, is encouraging young people to put big, creative ideas into action. Each year, they have a contest to challenge graduate students and researchers to come up with concrete solutions to make the food system more environmentally sustainable. They encourage young researchers to take urgent action to combat climate change and its impacts, directly influencing SDG 13.

Winners of the contest include Jamaican researchers Shaneica Lester and Anne-Teresa Birthwright, who are training small farmers to adapt to and mitigate the effects of climate change on the island. Through participatory research practices where they work directly with farmers, they are able to share their knowledge as well as learn from the farmers themselves. And the support they've received from BCFN YES has allowed them expand their research and get more attention for sustainable agriculture practices a solution to climate change in Jamaica.

Similarly, Young Professionals for Agricultural Development (YPARD) is working to increase the involvement of young agriculture and food professionals in high level decisionmaking.

YPARD now has network of more than 15,000 members and more than 60 national working groups. The organization is committed to involving these young leaders in “critical conversations” in agricultural research for development. YPARD is a community by youth and for youth, that imagines “[a more sustainable and innovative agricultural sector \[...\] that truly incorporates the views of youth](#)” (Join YPARD 2018).

At the heart of YPARD are its members, who are encouraged to take an active role and to initiate activities relevant to young professionals in their local context. Indeed, there is no sustainable future without the full engagement of the new generation.

And while investing in young researchers and scientists is valuable, food producers and workers also need more support.

In the United States, the National Young Farmers Coalition helps young, new farmers engage, mobilize, and direct more attention to the issues they face—issues that are not dissimilar to farmers in other parts of the world. They lack access to land, mentorship, financing, and education. And they are often burdened by student loan debt and lack of access to healthcare. Their Executive Director, Lindsey Schute, believes that if young farmers are given a real chance of success, they can not only survive, but thrive.

During a keynote at the 2018 Food Tank Summit in Washington, DC, Schute said, “we wanted to give our farmers a platform to take action in their own areas, it’s also an essential social network farming can be very isolating and it’s incredibly important that farmers have a social network around them...ultimately it’s that support network to provide services for farmers and farmer viability...we have to support them throughout to make sure they are doing well and that’s really the foundation of our organization” (Fireside Chat 2018a).

And this work is happening across the world. CEJA, the European Council of Young Farmers, provides a forum for young farmers to communicate with European Union (EU) policymakers. Their goal is to support the working and living conditions for young people entering the agricultural sector. CEJA represents more than two million farmers across Europe, 24 EU states, and 32 national organizations. For over 50 years, CEJA has given a voice to young farmers, influencing EU policy decisions, and provides advanced educational opportunities to its young farmers (CEJA).

Universities are also realizing the need to train the next generation of leaders. At Cape Coast University, in Ghana, for example, learning not only takes place in classrooms, but in fields. The University’s Department of Agricultural Economics and Extension is training young extension workers to better work with farmers and meet their needs. The program was started in the early 1990s after the Ministry of Agriculture found that its extension workers were not communicating well with farmers, says Dr. Okorley, a Cape Coast professor. The goal of the program, according to Okorley, is “to improve the knowledge of front line extension staff.” Because the educational background of many extension workers is “limited” (many don’t have the means to attend college) says Okorley, they “couldn’t look at agriculture holistically” (Learning to Listen 2010).

But the university is helping change that problem and achieve the fourth SDG to ensure quality education for all. Students learn how to engage with farmers and communities by learning better communication skills. And they are trained to properly diagnose problems, as well as come up with solutions. Expanding access to agricultural education is one important way to promote lifelong quality learning opportunities for all people.

After attending a year of classes on campus, the students go back to their communities to implement what they've learned in Supervised Enterprise Projects (SEPs). The SEPs give the student-professionals the opportunity to learn that particular technologies, no matter how innovative they might seem in the classroom, don't always "fit" the needs of communities, says Dr. Okorley (Learning to Listen 2010). The SEPs also help them implement some of the communication skills they've learned in their classes, allowing them to engage more effectively in the communities where they work. Instead of simply telling farmers to use a particular type of seed or a certain brand of pesticide or fertilizer, the extension workers are now learning how to listen to farmers and help them find innovations that best serve their particular needs. "One beauty of the program," according to Dr. Okorley, "is the on-the-ground research and experimentation." He says "it allows the environment to teach what should be done" (Learning to Listen 2010).

The Center for Agroecology and Sustainable Food Systems at the University of California, Santa Cruz (UCSC) leads an apprenticeship training program that combines the traditional classroom model with field work to educate and train future farmers about the techniques of agroecology and organic farming.

The UCSC apprenticeship program has been in existence for over 50 years and is internationally recognized for successfully intertwining traditional and experiential learning. Students learn practical farming skills such as soil management, composting, pest control, crop planning, and irrigation, as well as businesses practices including marketing strategies and Community Supported Agriculture (CSA) practices (About the Center 2013).

But students learn more than just practical sustainable farming skills, the program addresses farm labor issues, policy, and equity within the food system. Graduates of the program are developing projects all over the world acting as stewards of the land and advocates of food justice (Table 3).

And culinary institutes hope to train young chefs and hospitality workers about the importance of sustainability in the food system—practices that are not only better for the planet, but help improve hotels, restaurants, and businesses bottom lines. As the world continues to industrialize, the need for more training of young people to perform technical jobs is essential for realizing SDG nine. The soon to be opened New Orleans Culinary and Hospitality Institute (NOCHI) will offer intensive programs to train young hospitality leaders. Professionalizing these culinary services can provide incentive and motivation for young people to get involved. NOCHI Founder and legendary restaurateur Dickie Brennan says "we don't want people to think that hospitality is just cooking and waiting tables" (D. Nierenberg, personal communication, July 25, 2018). Organizations like this help promote greater inclusivity and more sustainable industrialization.

**Table 3** Farmer education

Cornell University Small Farms Program, United States	<p>The Cornell Small Farms Program helps farmers become experts in all aspects of small farm business development, from initial growth to optimization to maturity (Cornell Small Farms Program 2018)</p> <p>The program is collaboration between campus staff, Cornell Cooperative Extension educators, and other state partners. Their include Small Farms News Service; beginning farmer assistance; statewide work teams on livestock processing, local markets, and grasslands utilization; research on small farm clusters and regional food systems; and professional development training for educators and service providers (Sustainable Campus)</p>	<p>The program initially developed courses for beginner farmers and over the years began developing courses for a broader audience. Today, the program supports a diverse group of small farmers with online resources for business development (Learn About Our Online 2017)</p>
Farmshare Austin, United States	<p>Farmshare Austin's is growing a healthy local food community by increasing access to local food, educating new farmers, and preserving farmland. They envision a future where farmers have livable incomes, everyone has access to organic food, and environmental resources are highly valued. They host a farmer education program on their 10-acre certified organic farm in Texas and run food access programs for food insecure communities in the area (Farmshare Austin)</p>	<p>Farmshare Austin was created in 2014 offering an 18-week 'Farmer Starter Program,' expanding education for organic farming. Currently, they also run mobile markets, bringing local food to communities with limited access to food and high rates of chronic disease risk factors (Farmshare Austin)</p>
IALA Amazonico, Brazil	<p>Iala Amazonico is an agro-ecological institute located in the Amazon region of Brazil. It is part of a network of Institutes for Agro-ecology in Latin America (IALA) created by La Via Campesina. Their goal is to support the use of agro-ecological practices among peasants as a means to guarantee food sovereignty. The IALA's organize workshops and seminars, offer internships, and a post-graduate course in agro-ecology. The IALA's offer structured meeting opportunities for people to share their experiences and exchange ideas (IALA Amazonico)</p>	<p>In 2005, La Via Campesina began establishing the international network of agroecological institutes. With the support from Hugo Chavez, IALA Amazonico was founded in 2009. Post-graduate courses in Rural Education, Agroecology, and Agrarian conflicts in the Amazon were offered starting in 2010 in partnership with the Federal University of Pará (UFPA) (IALA Amazonico)</p>

(continued)

**Table 3** (continued)

<p>Global Farmer Field School Platform, Asia, Africa, Latin America, and the Caribbean</p>	<p>The Farmer Field School (FFS) platform focuses on people-centered learning, using participatory methods to freely exchange knowledge and experiences as well as field exercises to encourage “learning by doing” FFS addresses a range of topics including soil, crop and water management, aquaculture, agroforestry, and nutrition. FFS is offered in over 90 countries (Global Farmer 2018)</p>	<p>FFS was started in Asia in the late 1980s Today, FFS offered in over 90 countries, reaching over four million farmers (Global Farmer 2018)</p>
<p>Common Agricultural Policy, Europe Union</p>	<p>The EU’s Common Agriculture Policy (CAP) is funded out of the EU budget in an effort to support farmers and agricultural productivity across Europe. They work to ensure EU farmers can make a sustainable living, address climate change through the sustainable management of resources, as well as support and promote the rural economy (Common Agricultural Policy at a Glance 2018)</p>	<p>CAP was launched in 1962 as a partnership between agriculture and society, building stronger connections between farmers and the nation. The policy provides income support through direct payments to farmers, interference in the market during extreme conditions, and the implementation of programs to support rural areas (Common Agricultural Policy at a Glance 2018)</p>

## 5 Conclusion: Achieving the SDGs

In order for the SDGs to be fully achieved, they need the support of not only policy-makers and business leaders, but individual farmers, activists, and advocates. They are on the front lines of the movement for a sustainable food that is more economically, environmentally, and socially sustainable.

Farmers, particularly, need to have their voices heard and need the opportunity to organize and work together collectively. Youth and women farmers also deserve an opportunity to have equal access to resources and inputs. NGOs and advocacy groups can support these efforts through creating awareness of the challenges and successes happening in the food system every day. And eaters are realizing both the power of their consumption choices as well as their votes.

Thankfully, leaders around the globe are beginning to respect and honor all aspects of the food system—from farming to research to policymaking, all helping to achieve SDG 17. Creating better education and infrastructure and strengthening research institutions can ensure that agriculture is not seen as something backward, but as a way forward. To strengthen and revitalize the global partnership for sustainable development, it will take all of these organizations and their home countries working together. The SDGs provide a powerful set of guidelines for cultivating equality, preserving natural resources, and ensuring that people are not simply fed, but well-nourished. And they provide a chance for democratizing the food system so that all voices can be heard.

## Appendix. Summary of Organizations from the Chapter

Name	Website	Description	SDG focus
10,000 Gardens in Africa	<a href="https://www.fondazione Slow Food.com/en/category/10000-gardens-in-africa/">https://www.fondazione Slow Food.com/en/category/10000-gardens-in-africa/</a>	Supported by Slow Food Foundation for Biodiversity, they started with the goal to build 1000 gardens and within 4 years, they realized overwhelming success and re-launched the program with the goal to build 10,000 gardens	11,15
Asian Farmer Association for Sustainable Rural Development (AFA)	<a href="https://asianfarmers.org/">https://asianfarmers.org/</a>	A regional alliance of national federations and organizations of small scale women and men farmers and producers	8,16
Barilla Center for Food & Nutrition Young Earth Solutions (BCFN YES!)	<a href="https://www.barillacfn.com/en/bcfnyes2018/">https://www.barillacfn.com/en/bcfnyes2018/</a>	Encourages young people to put big, creative ideas into action with an annual contest to challenge graduate students and researchers to come up with concrete solutions to make the food system more environmentally sustainable	9,13
Big Green	<a href="https://biggreen.org/">https://biggreen.org/</a>	Formerly The Kitchen Community, they are working to create a replicable and scalable model for establishing school gardens	11,15
Cape Coast University, Department of Agricultural Economics and Extension	<a href="https://ucc.edu.gh/Department/departement-agricultural-economics-and-extension">https://ucc.edu.gh/Department/departement-agricultural-economics-and-extension</a>	Started in the early 1990s to better work with farmers improve the knowledge of front line extension staff	4
CEJA European Council of Young Farmers (CEJA)	<a href="http://www.ceja.eu/">http://www.ceja.eu/</a>	Provides a forum for young farmers to communicate with European Union (EU) policymakers	16
Center for Agroecology and Sustainable Food Systems at the University of California, Santa Cruz (UCSC)	<a href="https://casfs.ucsc.edu/">https://casfs.ucsc.edu/</a>	Leads an apprenticeship training program that combines the traditional classroom model with field work to educate and train future farmers about the techniques of agroecology and organic farming	4,12
Chef Action Network (CAN)	<a href="http://www.chefaction.org/">http://www.chefaction.org/</a>	Help chefs tap into their inner advocate, and provide the tools, training, and support infrastructure to ensure their success	16

Name	Website	Description	SDG focus
Common Agricultural Policy	<a href="https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance_en">https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance_en</a>	Work to ensure EU farmers can make a sustainable living, address climate change through the sustainable management of resources, and support and promote the rural economy with direct financial investment, market intervention, and program implementation	8,11,13,16
Cornell University Small Farms Program	<a href="https://smallfarms.cornell.edu/">https://smallfarms.cornell.edu/</a>	Helps farmers become experts in all aspects of small farm business development, from initial growth to optimization to maturity	4
Eco Ruralis	<a href="https://ecoruralis.ro/">https://ecoruralis.ro/</a>	An association of peasants, organic farmers, and academics advocating for peasants rights	16
Edible Schoolyard Project	<a href="https://edibleschoolyard.org/">https://edibleschoolyard.org/</a>	Founded by Chef Alice Waters in 1995, they are building and sharing a national edible education curriculum for pre-kindergarten through high school	3,4,11
Farm Labor Organizing Committee (FLOC)	<a href="http://www.floc.com/wordpress/we-are-floc/">http://www.floc.com/wordpress/we-are-floc/</a>	Founded by Baldemar Velasquez in the 1960s to organize migrant farmworkers, giving them a voice in the political process and helping them address industry wide challenges within the supply chain	6, 15
Farmshare Austin	<a href="https://www.farmshareaustin.org/">https://www.farmshareaustin.org/</a>	Works to increase access to local food, educate new farmers, and preserve farmland	3,4,11
Food Policy Action (FPA)	<a href="https://foodpolicyaction.org/">https://foodpolicyaction.org/</a>	Provides a scorecard assessing policy makers on food and agriculture legislation and policy	16
Global Farmer Field School Platform	<a href="http://www.fao.org/farmer-field-schools/en/">http://www.fao.org/farmer-field-schools/en/</a>	Focuses on people-centered learning, using participatory methods to freely exchange knowledge and experiences as well as field exercises to encourage “learning by doing”	4
IALA Amazonico	<a href="http://ialaamazonico.blogspot.com/">http://ialaamazonico.blogspot.com/</a>	As part of a network of Institutes for Agro-ecology in Latin America created by La Via Campesina, they support the use of agro-ecological practices among peasants as a means to guarantee food sovereignty	16



Name	Website	Description	SDG focus
James Beard Foundation (JBF)	<a href="https://www.jamesbeard.org/">https://www.jamesbeard.org/</a>	Works with chefs to unite around critical issues and provide an organized platform for leadership and advocacy	3,16
La Via Campesina (LVC)	<a href="https://viacampesina.org/en/">https://viacampesina.org/en/</a>	La Via Campesina or 'The Peasants Way', is a transnational movement of peasants and family farmers founded on the basis of autonomy, linking a common identity of social struggle	8, 10
Let's Move	<a href="https://letsmove.obamawhitehouse.archives.gov/">https://letsmove.obamawhitehouse.archives.gov/</a>	Started by former First Lady Michelle Obama, the initiative works to create a healthy start for children, empower parents and caregivers, provide healthy food in schools, improve access to healthy, affordable foods, and increase physical activity.	2,3,10
MASIPAG, Farmer-Scientist Partnership for Development	<a href="http://masipag.org/">http://masipag.org/</a>	A farmer-led network of organizations, NGOs, and scientists working towards building farmer's control over resources, production, and land	16
National Family Farm Coalition (NFFC)	<a href="http://nffc.net/">http://nffc.net/</a>	Represents family farm and rural groups who experience deep economic challenges in rural areas	11,16
National Farmers Union (NFU)	<a href="https://nfu.org/">https://nfu.org/</a>	The second largest organized farmer union in the United States working to defend sustainable farming practices	6, 15
National Young Farmers Coalition	<a href="https://www.youngfarmers.org/">https://www.youngfarmers.org/</a>	Helps young, new farmers engage, mobilize, and direct more attention to the issues they face	16
New Orleans Culinary and Hospitality Institute (NOCHI)	<a href="https://www.nochi.org/">https://www.nochi.org/</a>	Offers intensive programs to train young hospitality leaders	4
Prolinnova	<a href="https://www.prolinnova.net/">https://www.prolinnova.net/</a>	An international, multi-stakeholder NGO that promotes local innovation processes in ecologically-oriented agriculture and natural resource management	6, 15
Reseau Organisations Paysannes et des Producteurs Agricoles de l'Afrique de l'Ouest (ROPPA)	<a href="http://www.roppa-afrique.org/">http://www.roppa-afrique.org/</a>	A network of West African producers who advocate on behalf of farmers from 13 countries in the region	6, 15

Name	Website	Description	SDG focus
Self-employed Women's Association (SEWA)	<a href="http://www.sewa.org/">http://www.sewa.org/</a>	A country-wide network of cooperatives, self-help groups (SHGs), training centers, and banks that help women gain access to education, financing, and training	1, 5
Slow Food Foundation	<a href="https://www.fondazione Slow Food.com/en/">https://www.fondazione Slow Food.com/en/</a>	Active in over 100 countries, the Foundation involves thousands of small-scale producers in its projects, providing technical assistance, training, producer exchanges and communication	4,8,11
Trove	<a href="http://www.troveworldwide.com/">http://www.troveworldwide.com/</a>	An organization of experienced leaders and entrepreneurs who understand the important connections between the health of people and the health of the planet	11,13
United Farm Workers of America	<a href="https://ufw.org/">https://ufw.org/</a>	Formerly the National Farm Workers Association, it is the largest farmers union in the United States	8, 10
Young Professionals for Agricultural Development (YPARD)	<a href="https://ypard.net/">https://ypard.net/</a>	Works to increase the involvement of young agriculture and food professionals in high level decisionmaking	16

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