

## **Fair Trade Flowers: Global Certification, Environmental Sustainability, and Labor Standards\***

*Laura T. Raynolds*

*Center for Fair and Alternative Trade and Sociology Department  
Colorado State University*

**ABSTRACT** This article analyzes the organization of the fair trade flower industry, integration of Ecuadorian enterprises into these networks, and power of certification to address key environmental and social concerns on participating estates. Pursuing a social regulatory approach, I locate fair trade within the field of new institutions that establish and enforce production criteria in international markets. My research finds that while firm owners and managers support fair trade's environmental and social goals, these commitments are delimited by mainstream market expectations related to production efficiency and product quality. In environmental arenas, certification helps ensure that conditions exceed legal mandates and industry norms. In social arenas, certification helps ensure that labor standards exceed legal and industry expectations and funds important programs benefiting workers and their families. Where unions are absent, fair trade's greatest impact may be in the establishment of workers' committees that can build collective capacity. Although these new labor organizations face numerous challenges, they may strengthen the social regulation of global flower networks, making firms accountable to their workers as well as to nongovernmental organizations, retailers, and consumers.

### **Introduction**

Over recent years we have seen a rapid growth in new initiatives to socially regulate global markets and shore up environmental and labor standards through voluntary certification systems. The globalization of production and erosion in government regulatory capacity have fueled the rise of these private, non-state-mandated, transnational governance arrangements. The most credible and successful certifications are spearheaded by nongovernmental organizations (NGOs) that establish production criteria, oversee compliance, and award product labels. Multiple-stakeholder initiatives engage NGOs, businesses, civil-society groups, and consumers in forging new commodity networks. Pioneered

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by organic certification, voluntary regulations in the agricultural sector have focused largely on promoting ecological improvements. In the manufacturing sector, certification and labeling initiatives have worked primarily to bolster labor standards around the world.

Fair trade seeks to improve both environmental and social conditions and foster more egalitarian trade relations via sales of certified items produced in the Global South (Raynolds, Murray, and Wilkinson 2007). Sales of fair trade–labeled products are worth almost \$6 billion and are growing rapidly across North America and Europe (FLO 2011a). Originally designed to support peasant coffee farmers, fair trade certification has expanded to include 20 different commodities, many of which are produced on large enterprises. In 2010 there were 220 certified plantations employing 173,000 workers in the production of fair trade flowers, tea, fresh fruits, and other items (FLO 2012). Fair trade's most rapid growth is currently in these large enterprises. Although there is a substantial literature on fair trade in the peasant coffee sector (Bacon 2005; 2010; Jaffee 2007; Mutersbaugh 2005; Raynolds 2002, 2009; Renard 2005), relatively few studies analyze the implications of fair trade for the escalating number of large enterprises and workers in certified networks. This article addresses this lacuna, drawing evidence from a field-based study of fair trade–certified flower plantations in Ecuador. My research examines the insertion of Ecuadorian enterprises in fair trade flower networks and the power of certification to address key environmental and social concerns on participating estates.

This study focuses on the flower industry because of its importance in global trade, its centrality in fair trade's strategy of certifying plantations, and the key contrasts it provides to peasant-based fair trade coffee production. Flowers are a major global commodity grown on large enterprises in Latin America and Africa for sale in North American and European markets (Ziegler 2007). Fair trade has promoted the certification of flower plantations to address critical environmental concerns related to heavy agrochemical use and the poor working conditions of millions of men and women employed in this sector (ILRF 2010; PAN 2003). I ground this analysis in a case study of fair trade certification of hired labor enterprises in Ecuador because, although a few studies focus on certified plantations in Africa (Dolan 2007; Hughes 2000; Riisgaard 2009), none have yet systematically studied the implications of plantation certification in Latin America. My analysis of certified flower enterprises finds that the conditions governing the participation of large estates in fair trade and the environmental and social benefits accruing from certification are significantly different than in peasant production. The study thus advances our understanding of fair trade in the expand-

ing plantation sector and provides an important complement to research on certification of peasant products.

The article begins by outlining my conceptual framework of social regulation in global commodity networks and research methods. The study then investigates the implications of fair trade certification in large-scale enterprises, highlighting the challenges and opportunities associated with (1) promoting more egalitarian North–South relations, (2) fostering sustainable production practices, and (3) bolstering worker well-being and empowerment. Turning first to trade relations in flowers, I find that fair trade certification has a relatively limited impact and that certified flower markets, like conventional markets, are controlled by large retail buyers. Eliminating a key mechanism through which fair trade promotes egalitarian North–South relations in peasant products, there are no price guarantees in certified plantation products like flowers, since benefits would accrue to firm owners, not workers. Focusing next on ecological concerns, the study finds that fair trade certification does play a critical role in addressing pesticide-related environmental and worker-health problems. As I demonstrate, environmental and worker-health conditions on fair trade–certified flower farms in Ecuador exceed legal mandates and industry norms. Yet these enterprises, like many other large agroexport firms, pursue hazardous chemical intensive practices and export flower production may not be environmentally sustainable. Turning to my third area of analytical concern, worker well-being and empowerment, I find that it is in this domain that fair trade certification may have its greatest impact. As I demonstrate, in a plantation context fair trade social premiums provide important benefits for workers, their families, and communities, much as they do in peasant sectors. In addition, certification establishes labor standards that are, in the case of Ecuadorian flowers, above legal requirements and industry norms in key areas. What may do the most to empower workers, particularly in a context like the Ecuadorian flower sector where unions are largely absent, are the fair trade–mandated workers’ committees. Although workers’ committees face numerous challenges, they may strengthen the social regulation of global flower networks, making firms accountable to their workers as well as to retailers, NGOs, and consumers.

### **Fair Trade: Social Regulation in Global Commodity Networks**

Since the 1990s, globalization and the declining capacity of the state to regulate production in national and international arenas have led to a proliferation of new regulatory initiatives. These efforts seek to shape

business practices using voluntary standards and certifications to address a range of social and environmental issues. Some of the best-known initiatives dictate labor conditions in garment manufacturing, shoe manufacturing, and other similar types of industries (O'Rourke 2006; Seidman 2007) and environmental criteria in food, timber, and other natural-resource sectors (Auld, Gulbrandsen, and McDermott 2008; Cashore, Auld, and Newsom 2004). Fair trade, which has gained significant popularity in core products like coffee, has recently extended certification to include flowers, focusing on both social and ecological concerns.

Certification systems are often characterized as "private voluntary" initiatives, highlighting their break from state-sanctioned rules (Bartley 2007; Gereffi, Garcia-Johnson, and Sasser 2001). Cashore and colleagues (2004) argue that these "non-state market-driven" systems are distinguished by their voluntary nature and economically based incentives. The global commodity chain-value chain framework offers an insightful approach for analyzing the internal logic of regulatory system participation. Pioneering this analysis, Gereffi (1994) provides a theory of the rising power of retail brand corporations in "buyer-driven" commodity chains and a methodology for analyzing the interlinking of economic activities, coordination of enterprises, and distribution of value in global markets. A number of studies apply this approach to the agrofood sector, revealing the growing power of supermarkets to regulate activities within their supply chains (Dolan and Humphrey 2000; Hatanaka and Busch 2008).

Complementing this market-based view, a social regulation approach focuses on the alternative social norms advanced by certification systems and the social movement groups promoting regulation (Raynolds 2012). This framework builds on Polanyi's (1957) argument that the economy is "embedded and enmeshed in institutions, economic and noneconomic." A network analogy helps capture this embeddedness concept, highlighting how markets are shaped by flows of ideas as well as commodities and how social as well as economic actors influence production. The conventional approach explores the constellation of ideas, practices, and institutions that define and uphold economic networks (Allaire and Boyer 1995). Thévenot (1995) argues that while mainstream economic relations are ruled by industrial and market conventions, economic arenas may also be characterized by domestic (or what I call "relational") conventions, based on personal trust and place attachment, or civic conventions, based on social and ecological welfare commitments. Research on alternative agriculture elaborates this approach, revealing the centrality of relational and civic norms in local, organic,

and slow food arenas (Murdoch, Marsden, and Banks 2000) and certification's role in shifting attention from a product's physical qualities to the ethical and ecological values embedded in the commodity (Barham 2002).

Transnational advocacy groups have been central in fueling the rise of corporate responsibility, pressuring corporations by "naming and shaming" poor performers. Reports of sweatshop conditions and environmental destruction in global industries have propelled major corporations to establish social and environmental responsibility policies (Auld et al. 2008; O'Rourke 2006). Moving beyond demands for corporate *responsibility*, a number of groups have worked to promote corporate *accountability*, asserting the right of social groups to oversee economic relations (Utting 2008). NGOs have created a number of certifications to foster accountability in economic arenas and address social concerns related to human rights, labor, and environmental issues. These initiatives position NGOs as external moral arbitrators who dictate economic conditions, setting operational standards, establishing mechanisms to foster compliance, and awarding labels to promote participating products (Gereffi et al. 2001). Advocacy groups have rallied significant popular support for certified goods, with growing numbers of consumers seeking out ethically and environmentally sound products (Barnett et al. 2005).

The existing fair trade literature points to the salience of a social regulatory framework in analyzing certified networks. Raynolds (2000:298) shows how fair trade seeks "to re-embed commodity circuits within ecological and social relations, thus challenging the dominance of conventional price relations in guiding production and trade." Most of the fair trade literature focuses on certification's first and still most important product, coffee. A set of articles reveal the norms, conventions, and institutions involved in fair trade coffee networks (Raynolds 2002; Renard 2003, 2005). Several studies analyze the impact of fair trade on Latin American coffee cooperatives, highlighting the bureaucratic requirements of certification and the advantages provided by fair trade's coffee price guarantees (Bacon 2005; Jaffee 2007; Mutersbaugh 2005). Although coffee cooperatives, farmers, and communities have benefited significantly from fair trade-sponsored environmental and social programs (Raynolds, Murray, and Taylor 2004), recent studies suggest that growing mainstream corporate involvement may threaten these benefits (Bacon 2010; Jaffee and Howard 2010; Raynolds 2009).

While the literature on fair trade certification in the peasant-based coffee sector is suggestive of the challenges and opportunities inherent in social regulation, research findings cannot be assumed to apply to

other commodities or other forms of production organization. Flower enterprises face significantly different production and market conditions and must satisfy commodity-specific certification criteria. Although fair trade environmental rules cover production units of varied scale, social standards for hired labor enterprises are significantly different than those for peasant producers. Despite the rising prominence of plantation production in fair trade, there has to date been relatively little research on the implications of certification for hired labor enterprises. A set of studies explores the impact of European ethical trade initiatives, including fair trade, on African flower and horticultural production (Dolan 2007; Hale and Opondo 2005; Hughes 2000; Riisgaard 2009). Yet to date there has been no academic research on fair trade certification of large enterprises in Latin America. This study addresses this lacuna, analyzing the integration of Ecuadorian flower plantations in fair trade and the impact of certification on environmental and labor conditions.

### **Research Methods**

This analysis draws on a field-based study of fair trade certification in the Ecuadorian flower industry undertaken between 2010 and 2011. Information on the fair trade flower trade is derived from published and unpublished industry, government, and NGO documents. More in-depth understanding of the meaning and operation of certification in flowers exported from Ecuador comes from a series of face-to-face, phone, and e-mail interviews with key fair trade network actors, including four representatives of the major fair trade–certification agencies (Fairtrade International and Fair Trade USA) and four representatives of the major Ecuadorian fair trade and flower industry groups (the Ecuadorian Fair Trade Association and Expoflores). Interviews with 14 development NGO, environmental group, and labor organization representatives and academics help contextualize fair trade efforts. Initial interviews were semistructured to collect data on engagement in fair trade and divergent views of certification. In almost all cases these interviews led to follow-up discussions to probe key issues.

At the firm level, data come predominantly from an analysis of four flower enterprises selected to best represent the nine Ecuadorian farms certified to sell to fair trade markets. These enterprises reflect key industry variations, incorporating the two major production regions (Cotopaxi and Cayambe) and midsized as well as larger companies. A full day was spent visiting each farm conducting formal interviews as well as informal discussions during meals, farm tours, and travel. To understand management's perspective, I interviewed three to five top managers at

each enterprise, including the general manager, personnel manager, and certification manager, as well as two additional company owners off-site. Initial discussions with managers of each company lasted three to four hours. I had follow-up discussions with one or two managers at each farm via office visits, phone calls, and e-mail exchanges. To understand workers' perspectives, at each farm I interviewed three to four elected representatives of each of the two major worker organizations: the workers' committee and the joint body. These semistructured interviews lasted from one to one and a half hours each. The two to three hours of formal discussion I had with worker representatives at each farm were supplemented by informal follow-up conversations exploring key topics.

My multimethod field study provides critical information on the integration of Ecuadorian flower enterprises into fair trade networks and mechanisms by which certification addresses environmental and social concerns on participating estates. A key strength of the methodology is that it incorporates both management and worker perspectives. Although managers discussed fair trade and company practices freely, it should not be forgotten that they have a vested interest in the success of this market. Worker representatives were also forthright, but they too are aware that they benefit from fair trade. Since I coordinated my work with management and conducted interviews on the farms, worker views are likely to be biased in favor of management priorities. Despite these limitations, this research provides an insightful view of the promises and pitfalls of fair trade certification in promoting environmental and social improvements in the Ecuadorian flower sector.

### **The Integration of Flower Enterprises into Fair Trade-Certified Networks**

There is a significant international trade in cut flowers, with billions of dollars spent annually on roses and other floral purchases in North America and Europe. Although the Netherlands is the historic center of flower cultivation, production has shifted over recent decades and is now concentrated in Latin America, particularly Ecuador and Colombia, and Africa, particularly Kenya and Tanzania. Following regional trade patterns, Latin America is the major supplier for North America while Africa ships largely to Europe. Cut flowers have traditionally been distributed by wholesalers and auction houses and sold in small shops (Ziegler 2007). Yet most floral purchases now occur in supermarkets and other large retail outlets. Because of the perishability of flowers, their rapid and temperature-controlled transit, careful distribution, and timely sale is critical and requires tight buyer-supplier coordination.

Dominant retailers in the Global North increasingly purchase directly from producers in the Global South. Although growers have traditionally competed in the market on the basis of flower price, physical quality, and longevity, buyers are increasingly concerned also with the ecological and social dimensions of production.

Ecuador has over recent decades emerged as a major global flower producer, with exports increasing in value from US\$195 million in 2000 to \$565 million in 2008 (FAS/USDA 2009). Roses account for two thirds of the country's flower exports, with over a billion produced each year. Seventy percent of Ecuador's flowers are sold in the United States; the rest go largely to the Netherlands and Russia (FAS/USDA 2009). Ecuadorian flowers—particularly high-quality roses—are well positioned in international markets. Yet because of increasing competition from Africa and the economic downturn, floral export earnings fell in 2009 for the first time (Expoflores 2010). The flower industry is one of the most dynamic areas of the Ecuadorian economy, generating a substantial portion of export earnings and much-needed rural employment. About 116,000 workers, 60 percent of whom are women, are employed on the roughly 800 flower farms (FAS/USDA 2009). While industry and government officials tout the economic contributions of the Ecuadorian flower industry, critics raise concerns regarding the social and ecological implications of growth in this sector.

Over the past decade a number of certification initiatives have emerged in the international flower industry, as in other sectors, to regulate corporate activities and distinguish items produced under more ethically and ecologically favorable conditions (Riisgaard 2009). Fair trade represents one of the most well-established and powerful third-party certifications in the global agrofood sector, harnessing deeply engrained social norms of "fairness" to generate popular support. National and international development NGOs, faith-based organizations, student groups, and other civil-society actors have been central in shaping fair trade networks and fueling demand for labeled products. Solidarity groups were critical in promoting early sales of fair trade-certified coffee, focusing on the need to bolster peasant livelihoods. Advocacy campaigns remain central in pushing companies to carry more recently certified items like flowers, highlighting fair trade's ability to improve conditions for hired workers.<sup>1</sup> Fair trade markets have flourished across Europe and North America, with sales rising from US\$.5 billion in 2001 to nearly \$6 billion in 2010 (FLO 2005, 2011a).

<sup>1</sup> In 2011 Change.org successfully pressured 1-800-Flowers to carry certified flowers.



**Table 1. Ecuadorian Fair Trade-Certified Flower Enterprise Characteristics.**

Name	Year Started	Year FLO Certified	Area (Acres)	Workers
Agroganadera Espinosa Chiriboga S.A.	1998	2002	25	141
Compania Agropromotora del Cotopaxi—Agrocoex S.A.	1992	2002	57	184
Flormare S.A.	1993	2010	20	113
Hojaverde Cia. Ltda.	1997	2002	37	210
Inversiones Ponte Tresa S.A.	1991	2003	21	133
Jardines Piaveri Cia. Ltda.	1996	2003	32	144
Joygardens S.A.	1996	2006	20	130
Nevado Ecuador S.A.	1998	2002	86	520
Rosas del Monte Rosemonte S.A.	1985	2003	26	143
Roses & Roses	1997	2008	52	263

*Source:* Research interviews and Ecuador Fair Trade Association (2011).

The fair trade-certification system translates movement ideals into formal standards and procedures and is overseen by a set of nonprofit organizations: Fairtrade International (FLO) sets commodity-specific production rules, FLO-Cert carries out annual audits for compliance, and national labeling agencies like Fair Trade USA promote and oversee markets.<sup>2</sup> Fair trade importers are licensed by national labeling agencies and are typically mainstream retailers or wholesalers. Large retailers have played a key role in increasing the range of labeled commodities and it was a major Swiss supermarket chain that persuaded FLO to extend certification to flowers in 2001. To counter the traditional volatility of global markets and make trade fairer, FLO requires that buyers purchase from certified growers using contracts or sourcing plans (which in flowers must span six months) and pay a social premium (calculated at 10 percent of the free-on-board value of labeled floral imports).

Ecuador was the first country to produce fair trade-labeled flowers and is now the world's second largest supplier with 10 certified enterprises.<sup>3</sup> All of the participating farms specialize in the export of high-quality roses, together offering 154 different varieties in a range of colors and sizes. As outlined in Table 1, Ecuador's FLO-certified flower estates range in size from 20 to 86 acres and employ from 113 to 520 workers. By international standards these are medium-sized flower enterprises. Most are family businesses with owners undertaking management responsibilities; some floral firms involve multiple family members and incorporate

<sup>2</sup> Fair Trade USA has been a member of FLO, but became independent in 2012.

<sup>3</sup> Kenya is the top exporter with 25 FLO-certified plantations.

their surname in the company name. The 10 companies have been in business since the 1990s and most were among the world's first fair trade flower farms, completing FLO certification requirements in 2002 and 2003.

Flower industry and fair trade representatives agree that these Ecuadorian flower farmers were the first to be invited to apply for certification because of their already high social and environmental standards as well as their quality roses. All firm owners interviewed spoke of their preexisting personal and business commitments to the values embodied in fair trade. As one owner and general manager explains:

My family started this business and our motivation from the beginning was rooted in social consciousness, not just commercial interest; we always had a social and environmental vision. Fair trade fits us perfectly; it is the right thing to do and we know we are on the right path. We can be proud of what we do. You cannot think of this business only in market terms, you need to think about broader benefits for our consumers, for our workers, and for our product. (Interview, Company A)

In these family businesses, the link between personal and business priorities is palpable and owners repeatedly describe themselves and their firms as "socially responsible" and "environmentally friendly," echoing fair trade norms.

Asked why they entered fair trade and what had come from their engagement, owners and managers typically emphasize how FLO guidelines help them structure their businesses to solidify social and environmental practices. Reflecting this view, a company official says:

We have always been a farm that is concerned with social and environmental conditions . . . but we didn't really know what to do. . . . Certification helps us do what we are dedicated to doing anyway. The advantage is that we know we are doing things the right way. . . . FLO is very rigorous, but every year we come out well in the audit. . . . This makes us feel good, satisfied. (Interview, Company D)

FLO specifies the bureaucratic procedures needed for certification, stipulating both entry requirements and annual progress measures. Company owners hope that fair trade will prove to be a good long-term investment, but they argue that it is not necessarily profitable in the short term because of the high costs of meeting rigorous procedural and documentation requirements. Each of the farms has designated a staff

person as the FLO certification manager, and that manager spends a significant portion of his or her day ensuring that standards are upheld. This person often oversees other certifications, but managers agree that FLO compliance is the most demanding.

Company officials report that a key advantage of fair trade certification is its ability to differentiate their company and their roses in increasingly competitive markets. As one owner notes:

The certification is very important because it acknowledges our activities. It is not just *us* saying we are being socially and ecologically responsible, but a third party. Fair trade certification has market recognition. But that does not mean that we do not have to focus on quality. . . . We are first and foremost a quality company. (Interview, Company B)

Competitive pricing and conventional quality concerns related to physical attributes such as flower and stem size, color, and fragrance remain critical. Companies sell flowers with the FLO seal for more than their average roses, but less than their most expensive long-stemmed varieties. While fair trade roses are not their top earners, FLO labels give firms access to niche markets, which are seen as essential since all managers are acutely aware of the high number of floral companies going out of business.

Although the entire enterprise must comply with FLO standards to be certified, only a portion of each firm's roses are sold carrying the fair trade seal because of limited demand. The share of roses labeled as fair trade sold by firms in this study has risen from 2–5 percent prior to 2007 to 10–30 percent in 2009. While these flowers were initially shipped only to Europe, the U.S. launch of certified flowers in 2007 has greatly expanded the market, with companies now shipping 10 to 80 percent of their fair trade roses to the United States. Ecuador supplies roughly half of the 9.5 million fair trade–certified flowers sold in the United States each year (TransFair USA 2009:40–41). Company managers are pleased with their new U.S. sales. Yet they are disappointed in this market's slow growth and question the commitment of mainstream buyers. Reflecting their shared concern, a farm owner-manager recounts:

We sell to lots of U.S. retailers: to major supermarkets (like Safeway and Giant); to the natural food chain Whole Foods; and even to Sam's Club. It is clear that some buyers are more committed than others. Whole Foods has a company image that aligns well with fair trade and our company. But still they sell roses certified by other programs that are cheaper because they require less social investment . . . and have made no signs of

increasing their purchases. Sam's Club does not appear to have much social commitment at all and may simply be using fair trade to improve their image. (Interview, Company A)

Mainstream retailers appear to abide by FLO rules yet erode fair trade's principles of equitable and stable trade by limiting their purchases and selling predominantly non-fair trade flowers and by setting their six-month contract amounts low so as to maintain their sourcing flexibility.

In sum, this analysis points to significant normative and organizational tensions in the integration of Ecuadorian flower farms into fair trade markets. The owners and managers of certified flower enterprises espouse many of fair trade's alternative civic and relational principles, yet to be successful they must uphold conventional market expectations related to price and product quality. These farms have reorganized their internal operations in accordance with FLO's bureaucratic requirements, suggesting that NGO governance does have a significant impact on production. But FLO rules appear to have far less influence on trade relations. Interactions between Ecuadorian companies and buyers of their fair trade flowers mirror those with their other large buyers, with dominant retailers controlling access to key markets, establishing price and quality specifications, and setting export quantities and schedules.

### **Regulating Environmental Standards**

Over the past 20 years we have seen mounting concern around the world over the dangers posed by chemical-intensive flower production for workers, surrounding communities, and the environment. Transnational environmental groups and local NGOs have drawn significant media attention to pesticide related human and environmental health problems in export flower plantations in Africa and Latin America (PAN 2003; Riisgaard 2009). The flower industry uses large quantities of agrochemicals to facilitate year-round production and ensure the exacting size and blemish-free quality expectations demanded by international buyers. U.S. import regulations actually promote pesticide use since flowers, like other agricultural products, must be pest free to gain entry, yet unlike food products they are not tested for toxic residues. Floral companies in Ecuador use up to 30 different pesticides and fungicides, many of which have been banned in the United States and Europe due to their toxicity (US LEAP and ILRF 2007). Since Ecuadorian roses are produced in greenhouses, the potential risks of pesticide exposure for workers is intensified.

Research suggests that chemical-intensive export flower cultivation in Ecuador has caused serious environmental and health problems. Pesti-

cides and fertilizers used in floral production have polluted the soil, air, and particularly the water in major growing regions. Local populations have been exposed to dangerously high levels of agrochemicals, leading to a range of major medical problems including delayed childhood development (Grandjean et al. 2006). Heavy chemical use is particularly hazardous for flower workers, who may handle dangerous substances without proper protective equipment or be exposed via on-farm contamination. Research finds that workers on Ecuadorian flower farms often suffer from persistent headaches and skin maladies; female workers often have significant reproductive health problems (Handal and Harlow 2009).

Reports of pesticide problems in the Ecuadorian flower sector have raised concerns among buyers and consumers, threatening sales in European and U.S. markets. In Ecuador, local activists have organized protests against the flower companies; government representatives have gotten involved since some of the alleged company practices violate national laws. As one industry representative reports, “Ecuadorian flowers have gotten some really bad press and we have had to prove that we are not causing all these environmental problems. Not everyone was to blame, but all of us have been affected.” To address these concerns, the industry association created the Flor Ecuador program, which includes environmental management and chemical-use guidelines (Expoflores 2011). Though it was supposed to be universally adopted, many companies have not met Flor Ecuador standards and the seal has limited market recognition.

Fair trade certification incorporates environmental and occupational health and safety standards and has far greater legitimacy since it involves more detailed regulations and rigorous third-party auditing. FLO’s recently revised general and flower-specific environmental and health and safety standards span 22 pages and include both minimum and progress requirements. As summarized in Table 2, FLO has 21 required environmental regulations and two management rules. FLO’s standards go substantially beyond Ecuador’s environmental laws and industry norms in a number of areas. There are 14 requirements related to agrochemical issues, with a restricted chemical list banning products that are legal and popular in Ecuador; chemical application, storage, and disposal specifications above industry norms; and mandates to pursue alternative pest control. FLO’s environmental regulations also address the conservation and noncontamination of soil and water and biodiversity maintenance.

Fair trade flower companies must also comply with 20 occupational health and safety standards that build on International Labour Organi-

**Table 2. Fair Trade Flower Environment and Occupational Health and Safety Standards.**

Program Management	
Management (2 minimum rules)	There must be a staff person responsible for meeting environmental requirements and procedures for making workers aware of these requirements.
Environmental Standards	
Agrochemicals (4 minimum rules)	FLO's red list of prohibited materials (drawn from WHO <sup>b</sup> Class I A&B, PAN's Dirty Dozen, EU, <sup>c</sup> and U.S. lists) are barred. Exceptionally allowed items can be used only when justified. Postharvest chemicals are limited.
Safe use (7 minimum rules)	Agrochemicals must be used, handled, and stored correctly to avoid dangers to people and environment. They must be applied by trained persons. Areas where pesticides are used must be signed; buffer zones or barriers must be used to prevent drift. Chemicals and containers must be safely stored, prepared, and disposed of and all purchases, use, and disposal recorded.
Pest control (3 minimum rules)	Companies must have IPM <sup>d</sup> guidance and use nonpesticide control and prevention measures.
Biodiversity, soil, and water, GMOs, <sup>a</sup> wastes (7 minimum rules)	Companies must avoid negative impact on protected areas, areas with high conservation value, and buffer zones. They must maintain and enhance soil fertility and ensure against waste water contamination. GMOs <sup>a</sup> are banned. Companies must reduce, reuse, recycle, and compost wastes.
Occupational Health and Safety	
Medical exams and conditions (4 minimum rules)	Workers must receive regular medical exams; those handling agrochemicals must be screened every 3 months. Conditions that require actions to safeguard worker health must be reported and acted on. Workers must receive treatment and compensation for work-related illnesses or injuries.
Safety training (2 minimum rules)	Employers must inform and train workers and their representatives on health and safety matters; training courses must be held at least every 12 months.
Workplace dangers and safety (9 minimum rules)	Workers have the right to exit unsafe situations. Youths and pregnant and nursing women and other vulnerable workers cannot perform dangerous work. Children must not be exposed to hazardous materials. Company premises must be safe, clean, and healthy, include potable water and sanitary facilities, first aid facilities, adequate lighting, ventilation, and emergency equipment.
Tools, uniforms, and protection from pesticide contamination (5 minimum rules)	Companies must provide and ensure workers use proper tools and uniforms and protect against pesticide contamination. Workers handling hazardous chemicals must be given adequate personal protective equipment of good quality. Greenhouse pesticide application is forbidden if unprotected workers are inside or will be exposed via drift. After spraying, reentry intervals defined by the manufacturer or by WHO <sup>b</sup> acute toxicity categories must be applied. Hazardous materials must be stored safely.

*Source:* Summarized from FLO (2011b, 2011c).

<sup>a</sup>Genetically modified organisms.

<sup>b</sup>World Health Organization.

<sup>c</sup>European Union.

<sup>d</sup>Integrated pest management.

zation (ILO) conventions and are substantially more rigorous than Ecuadorian laws. FLO regulations include minimum requirements related to medical exams and conditions, safety training, workplace dangers and safety, tools and uniforms, and protection from pesticide contamination. They also cover broad workplace concerns and specific hazards associated with intensive agrochemical use. For example, while all workers must receive medical exams, those handling agrochemicals must be tested every three months for contamination; while all workers must receive tools and uniforms, those involved in pesticide spraying must receive head-to-toe protective gear. FLO requires extensive worker training. Farm records indicate that in one year all workers had 26 hours of health and safety instruction, 6 hours of environmental training, and 9 hours of medical education about pesticides and other hazards (female workers were also trained on pregnancy risks). Employees handling agrochemicals had 10 more training hours on application procedures, precautions, and greenhouse reentry rules. Worker representatives on all the studied farms pointed to FLO-mandated trainings as a key factor distinguishing certified companies from other floral enterprises.

According to rose company owners, meeting FLO's environmental and health and safety standards is difficult and costly. As one farm manager reports:

FLO's standards are hard. . . . Complying is difficult and with the progress standards it gets more exacting each year. The rules about fumigating are strict. We have had to cut back the chemicals we use; we no longer use those on the red list. We use masks and other worker protections. . . . Workers here know that the chemicals are dangerous. The training for workers is an enormous effort and cost for us. . . . All the trainings take place during work hours . . . and everything must be documented. (Interview, Company D)

The extensive personnel training required for certification is performed by company staff as well as outside experts, including FLO's local liaison officer. Compliance is verified by FLO-Cert representatives, who spend about a week on site for the initial review and three to four days for subsequent annual inspections. FLO-Cert audits include: a review of company documents; interviews with managers and workers; inspection of production and packing facilities; checking of agrochemical supplies, equipment, and protective gear; and testing of flowers for banned chemicals. Managers report that fair trade auditing is rigorous and that irregularities jeopardize certification, as exemplified by an Ecuadorian rose farm that was recently decertified.

Worker representatives and managers concur that fair trade–certified farms vary significantly from other Ecuadorian flower farms in their environmental and safety policies—in the pesticides they use, their application procedures, and the protective equipment provided for workers. Highlighting these divergent environmental standards, a greenhouse employee reports:

On other farms they do not have good protections: in fumigating they do not have boots, or masks and filters; in production they have no gloves. They go back in an hour after spraying. Here no one enters the greenhouses during fumigating, they are marked and spraying is done at the end of the day. Other farms are hurting workers and the environment; they use chemicals on the red list. Here it is better because of the standards. And workers get medical visits to check for problems. (Interview, Company A)

As this statement suggests, workers are well versed in health and safety issues and familiar with FLO guidelines regarding chemical lists and procedures. Many workers have family members and neighbors employed on noncertified farms and are aware of varied workplace conditions. Most can point to a recent medical problem that they attribute to floriculture pesticide exposure.

Industry officials argue that the entire Ecuadorian flower sector has seen substantial improvements in environmental and safety conditions. A rose farm owner recounts:

When the industry started there were real problems; flower farms were in the eye of the hurricane: There were problems with worker safety, with pesticides. The industry has improved a lot, it has matured. Certification has been important in showing the way forward, showing what protective gear is needed and how fumigation should be done. (Interview, Company C)

Certified companies are industry leaders and have helped demonstrate best practices. Other floral farms appear to have (at least to some degree) followed their example, encouraged by the flower industry association program and by increased efforts on the part of national and local government agencies to ensure compliance with Ecuador's environmental and labor laws.

FLO guidelines promote the search for chemical alternatives, and certified farms are experimenting with integrated pest management and organic farming. FLO's liaison officer in Ecuador reports that "fair trade animates businesses to move toward organic practices whenever possible."



While alternative production methods can save money in the long run, in the short term only the wealthiest floral companies can afford to experiment. Evidencing the push for increased sustainability, two fair trade flower companies have gotten additional environmental management certifications.<sup>4</sup> One of these firms has even gotten a portion of its farm organic certified and is selling edible roses. Despite these improvements, critics argue that even certified flower enterprises undermine human and environmental health, and complaints of pesticide contamination from Ecuadorian rose plantations continue (Harari, Harari, and Sunta 2007).

My analysis suggests that fair trade certification has helped set environmental standards and fuel improvements in the ecological and human impact of flower production in Ecuador, but that does not mean that hazards have been eliminated. According to worker representatives, company health and safety policies are not fail-safe, and employees and their families remain concerned about the medical risks associated with floriculture. A number of industry representatives agree that agrochemical-related problems will persist until they eliminate the use of dangerous substances. But as they point out, this requires convincing buyers and consumers to accept roses that are not “perfect” by conventional quality norms.

### **Regulating Workplace Standards**

Cut flower production, like many other labor-intensive industries, has relocated to the Global South over recent decades in large measure to obtain cheap labor. Most flower workers in Latin America are women who are willing to accept low wages because of their restricted employment opportunities (Korovkin 2003). Work in the cultivation, harvesting, selection, and packing of fragile blooms is fast paced and exacting. Although floriculture in tropical countries is a year-round business, pressure on workers is intensified by seasonal demand peaks tied to major holidays. Roughly half of Ecuador’s floral exports are timed to ship for Valentine’s Day and Mother’s Day in the United States (Expoflores 2009a). In recent years the flower industry, like export manufacturing, has been accused of fostering sweatshop conditions, including meager wages, irregular employment, forced overtime, gender discrimination, child labor use, and union busting (US LEAP and ILRF 2007). Activists have protested outside floral shops condemning the plight of global flower workers. The International Labor Rights Forum has denounced conditions on Ecuadorian and Colombian flower plantations specifically (ILRF 2010).

<sup>4</sup> There are 13 Veriflora- and 23 Rainforest Alliance–certified farms in Ecuador.

Ecuadorian flower farms have traditionally been characterized by poor working conditions and labor rights violations, with companies taking advantage of weak labor laws and lax government oversight. To avoid paying Ecuador's legally stipulated employee benefits and maintain a malleable workforce, flower companies have often relied on intermediaries to supply contract workers or have fired workers after a three-month probation period (ILO 2000). During peak demand times, workers have been forced to do extensive overtime without extra pay (Korovkin 2003). The exploitation of female flower workers in Ecuador has been exacerbated by widespread gender discrimination and sexual harassment (Mena and Proaño 2005). Child labor use in agriculture, including flowers, is traditionally common (ILO 2000). Ecuadorian workers have historically had few avenues for challenging labor conditions in floral production given limited government support or organizational capacity. Worker associations are rare in rural Ecuador, and out of 800 flower farms, only two are unionized. According to labor groups, Ecuadorian flower farms have routinely fired workers for trying to unionize (ILO 2000; US LEAP and ILRF 2007).

Media reports of labor abuse on Ecuador's flower farms (e.g., NPR 2006) have threatened global sales and prompted a range of remedial actions. The Flower Label Program (FLP), founded in 1996 by German retailers and NGOs, initiated certification to improve labor conditions. Ecuadorian farms were the first to join FLP and there are now 41 participating enterprises, but this is still predominantly a German label and is not used in Ecuador's largest market, the United States (FLP 2011). The export association, Expoflores, has worked to improve the industry's image through positive media coverage and its Flor Ecuador program. Expoflores also helped found the Tripartite Social Forum involving government, industry, and NGOs to eradicate child labor in flowers (Expoflores 2009b). Ecuador's 2008 revised legal code addresses a number of problem areas in flowers: reaffirming rights of association, restricting the use of labor intermediaries, tightening child labor regulations, increasing the minimum wage, shortening the work week, raising overtime pay, and limiting overtime hours.

Flower industry representatives concur that fair trade goes beyond Ecuador's new labor laws and other certifications in setting the highest social standards. The majority of fair trade rose enterprises in Ecuador were FLP participants that went on to get FLO certified to expand their markets. Companies with both certifications report that fair trade has stronger social and monitoring requirements, a view substantiated by FLP's policy of accepting FLO-certified farms without further auditing

(FLP 2011). Asked what distinguishes fair trade from other certifications, managers from all the companies studied agreed that it does the most to advance workers. As Table 3 outlines, fair trade–certified flower estates must comply with 57 minimum social regulations as well as numerous progress measures. These rules build on core ILO conventions and seek to promote fair working conditions and worker empowerment. FLO requires that companies commit to social responsibility and create a corporate climate supporting fair trade. In addition to having a manager assigned to maintaining certification, all farms have an extensive FLO-stipulated training program. Company records show that in a year all workers received 14 hours of instruction on personnel policies, appropriate employee treatment and sexual harassment, labor rights, and fair trade benefits.

FLO's regulations prohibiting employment discrimination and abusive management practices go beyond national laws and, according to workers, help limit common unequal employment practices. FLO explicitly bars the use of pregnancy screening in hiring, firing of pregnant workers, and sexual harassment, practices that female managers and workers report remain widespread in the floral industry. Workers and managers concur that the treatment of workers is far better on certified farms than on neighboring enterprises. While certification cannot ensure good treatment, FLO guidelines lay out effective procedures for dealing with problems like sexual harassment when they occur. Certification rules banning forced and child labor are less critical than other provisions since they duplicate Ecuador's laws and, as respondents concur, child labor has largely been eliminated in export flower production in recent years. FLO's hiring and wage rules also largely reinforce employment legislation, including banning labor subcontracting. Workers and managers agree that legal minimum wage payments are now the industry norm, though many point to flower companies that pay workers late and ignore employee benefit laws. FLO's overtime and leave requirements far exceed national laws. Meeting fair trade's strict overtime rules is a major challenge, as one manager details:

The law limits us to a 40-hour week. All work on Saturdays and Sundays is overtime. Since roses need continuous care, we have high overtime costs. But our Colombian competitors have a 44-hour week that includes weekends. Things get very difficult at Valentines: FLO says workers cannot do more than 12 hours a week extra and must get a day off every 7 days. We can petition FLO for exceptions but this is complicated. (Interview, Company A)

**Table 3. Fair Trade Flower Labor and Social Standards.**

Program Management	
Commitment and management (7 minimum rules)	Companies must have a stated commitment to social responsibility. A senior manager must oversee the fair trade program and demonstrate that benefits go to workers. All staff must be informed about fair trade and required worker groups. Time and needed support must be provided for worker meetings and activities.
Labor Standards	
Freedom from discrimination (5 minimum rules)	Discrimination based on race, color, sex, sexual orientation, disability, marital status, age, religion, politics, or union-worker group membership in hiring or promotion is banned. Verbal or physical abuse, sexual harassment, and job termination because of pregnancy is barred. Grievance procedures must exist.
Freedom of labor (5 minimum rules)	Forced (e.g., bonded or prison) labor is prohibited. Spousal employment cannot be mandatory. Children under 15 are not employed; those under 18 are prohibited from night work, handling chemicals, and other dangerous work.
Hiring and payment conditions (9 minimum rules)	Regular jobs must be done by permanent workers with written contracts. Workers must receive legally mandated benefits and be aware of their rights, duties, salaries, and schedules. Pay must meet legal minimums and industry and regional averages. Payment must be regular, timely, and recorded. Only deductions set by law, collective bargaining, or written consent are permitted.
Overtime and leave conditions (7 minimum rules)	Work hours must meet legal and industry standards. Workers may not regularly work more than 48 hours per week and must have 24 consecutive hours off every 7 days. Overtime must be voluntary, not exceed 12 hours per week, and be paid a premium. Workers must get 3 weeks of paid annual leave, 8 weeks paid maternity leave, and leave for work-based illness.
Freedom of association, collective bargaining (8 minimum rules)	Workers' right to form and join workers' organizations and collectively negotiate work conditions must be recognized in writing and practice. Unions not based at the company must be able to meet with workers. If no union exists, workers will elect a workers' committee to represent them, negotiate with management, and defend their interests. Management interference is banned. Worker representatives will be able to meet regularly together, with all workers, and with senior managers during work hours.
Social Premium and Programs	
Fair trade premium administration (8 minimum rules)	A joint body including management and worker representatives oversees the premium, meeting regularly during work hours. Appointed management representatives will assist the group; worker representatives will be elected to reflect the workforce and given special training during work hours. Management and worker officials will be joint account signatories; the premium will be legally owned by all workers.
Fair trade premium use (8 minimum rules)	Premium use is decided by the joint body based on worker consultation. It may not cover regular company costs or individual payments. Joint body members have access to account information and equal voting rights. The joint body must have a yearly plan for premium use and is accountable to the workers and FLO for expenditures.

Source: Summarized from FLO (2011b, 2011c).

Most, but not all, flower workers want overtime hours since they need the extra money. But they also want time off and greatly value the week of paid vacation FLO mandates beyond what is required by law.

A central way that fair trade fuels labor improvements on certified rose farms in Ecuador is in its freedom of association rules. As Table 3 notes, FLO not only requires that workers have the right to associate (as does national law) but makes it mandatory that workers are collectively represented. In situations where unions are absent, as on most Ecuadorian flower estates, FLO standards call for the formation of a workers' committee to defend labor and negotiate with management. Committee members are democratically elected and represent major labor force variations by gender, age, and racial or ethnic origin. Managers and workers agree that the workers' committee distinguishes fair trade enterprises from other farms and is a key avenue for identifying worker priorities and communicating with management. In the words of an articulate committee president:

The workers' committee gives us possibilities that they do not have at other farms. Our job is to work for the well-being of workers. There is a far greater consciousness of workers here. We meet together each month. We have general assemblies and meetings by (job) areas to find out what workers need, what their problems are. We meet with managers every two months, also with the FLO official. We represent and defend the workers. Other farms do not have this dialogue with managers. (Interview, Company B)

The workers' committees are all well organized and have recently negotiated successfully with managers to address workplace concerns related to uniforms, cafeteria food, and transportation. Workers' committee leaders are well informed and receive substantial training: on one farm, they had 37 hours of annual leadership training by the FLO liaison officer. While representatives must commit some personal time, half of their committee activities are during the workday. In addition to the time and space for training and meetings, companies devote significant administrative support to facilitating committee activities. Managers and workers suggest that the workers' committee helps build trust between workers and managers.

Another key way that fair trade benefits workers is via the premium that supports programs for workers, their families, and communities. The premium buyers pay for FLO-certified roses provides a substantial fund for social programs, ranging from US\$80,000 to \$150,000 per year for each of the farms studied. This money is spent largely on scholar-

ships, short courses, child-care centers, computer centers, health and dental checkups, food and nutrition programs, and low-interest loans. Workers and managers agree that the premium programs are highly beneficial. As described by a worker representative:

The premium projects make the farm better than others. Ask any worker . . . you will hear their family has benefited, their standard of living has improved. The projects help with education and access to computers, improve housing and health. There is help for the children and to start a business. . . . With the premium they (workers) feel that the projects are theirs; they decide what we need. (Interview, Company A)

FLO requires that premium funds be administered by a joint body, which comprises four to five elected worker representatives and one to two managers. The joint body solicits project ideas, organizes voting on priority projects, manages the premium account, and oversees ongoing projects. Joint body worker representatives receive extensive annual training, totaling 54 hours on one farm, including 20 hours in accounting. Worker representatives devote some unpaid time to joint body activities, yet report gaining important leadership and management skills from participation. According to managers, the premium program requires substantial investments in staff time, yet is good for business since it improves worker well-being and commitment.

This analysis suggests that fair trade certification in the Ecuadorian flower sector has fostered significant improvements in individual capacity and workplace conditions and holds promise in advancing collective capacity and labor rights. FLO certification, like other standard systems, serves in part to ensure that national laws are upheld. But fair trade exceeds legal mandates and industry norms improving work conditions related to antidiscrimination, overtime, and paid leave. Fair trade also provides substantial benefits to workers via social premium programs, which improve the well-being of workers and their families, and extensive worker training, which increases individual capacity. Given the absence of unions and other worker organizations on most flower farms in Ecuador, the workers' committee and to a lesser extent the joint body may provide an important impetus for advancing collective capacity and workers' rights. Workers on the farms studied have clearly increased their ability to collectively present demands to company managers. The workers' committees have successfully negotiated for workplace improvements and hold significant promise. Yet these groups face important limits since they are not granted the same legal protections

under Ecuadorian labor law as unions, and their firm-level nature limits their power and could threaten their independence.

### Conclusions

This study illuminates the nature of fair trade in the cut flower industry, locating this certification effort within the growing field of new institutions that establish and enforce production criteria in international markets. Fair trade seeks to promote more egalitarian North-South relations, sustainable production, and individual and collective empowerment of workers and farmers through sales of certified products like flowers. While state policies have historically taken the lead in embedding economic activity in accordance with social needs (Polanyi 1957), in recent years civil-society institutions have taken on an increasingly important role in socially regulating conditions in the agrofood sector (Raynolds 2012). Fair trade represents a rapidly growing initiative that addresses societal concerns related to labor and environmental conditions in international production. Like other popular certifications, fair trade regulates economic activity through standards and audits, positioning NGOs as moral arbiters of corporate activity. Moving beyond demands of corporate responsibility, fair trade seeks to promote corporate accountability to external social actors, including advocacy groups, consumers, producers, farmers, and increasingly workers.

My analysis of certified flower networks finds that mainstream market actors and priorities override fair trade principles in trade relations and work to undermine progressive production practices. Fair trade-certified flower markets, like conventional floral sales, are largely “buyer driven” (Gereffi 1994), with large retailers controlling market access and product characteristics. Buyers are required to pay the fair trade social premium, but FLO does not fix flower prices since these would largely benefit company owners, not workers. This represents a sharp departure from fair trade policies in peasant products like coffee, where price guarantees are key to equalizing North-South relations (Bacon 2005, 2010). Buyers of certified flowers are required to use six-month contracts, which offer some trade stability, but my research finds that powerful retailers meet FLO standards while undermining fair trade principles by setting their contract amounts low and limiting their certified purchases. Mainstream corporate buyers use certified flowers to enhance their image but largely pursue conventional business practices in their supplier relations. While the owners and managers of certified flower enterprises voice support for fair trade’s progressive values and have invested significantly in meeting FLO requirements, conventional

quality and efficiency norms guide production practices on certified farms. Limited sales over recent years have frustrated certified companies and curtailed interest in fair trade among other Ecuadorian flower producers. The market-based challenges of promoting fair trade's alternative norms in the global flower industry parallel challenges found in certified coffee and other products (Jaffee and Howard 2010; Raynolds 2009; Raynolds et al. 2007), but are even more pronounced given intense retailer control and slow certified market growth.

This study finds that fair trade certification has helped ensure that environmental conditions on participating flower plantations exceed legal mandates and industry norms and has been particularly important in addressing pesticide-related worker health and safety issues. Industry representatives suggest that fair trade is working to raise environmental conditions across the Ecuadorian flower sector by demonstrating best practices. My interviews with workers find that while they recognize and value these improvements, they remain anxious about the impact of floral production on their health and that of their children. Critics argue that fair trade–certification rules are too weak to protect human and environmental health. Certified flower companies undoubtedly have a long way to go before they might be considered ecologically sustainable given the chemical-intensive nature of production. To augment environmental conditions, fair trade encourages a move to organic cultivation in flowers, like other items. But producers cannot eliminate the use of hazardous chemicals unless buyers are willing to pay higher prices and adjust their quality requirements. While dual organic and fair trade certification for food products like coffee is common (Mutersbaugh 2005; Raynolds et al. 2004), retailers and consumers appear far less willing to pay high organic prices for nonfood items like flowers or accept blemishes in roses marketed for their aesthetic perfection.

As workers and managers contend, fair trade's greatest impact in the flower sector has been in improving social conditions for workers, their families, and communities. Some FLO standards duplicate Ecuadorian labor laws, with audits confirming that flower companies are meeting their legal obligations. Yet other certification criteria, like those mandating additional paid vacation, clearly enhance work conditions. FLO's extensive training requirements promote the individual capacity of workers, particularly those serving on the joint body and workers' committee. My research finds that social premium projects in the flower sector provide needed educational, health, and other services to workers' families and communities, paralleling benefit streams found in fair trade coffee (Jaffee 2007; Renard 2005). While fair trade's empow-



erment agenda in the peasant sector focuses on building the capacity of producer cooperatives (Raynolds et al. 2004), in the context of large enterprises fair trade seeks to empower workers by requiring that they be collectively organized and by supporting these worker organizations. In the Ecuadorian flower sector, where unions are largely absent, FLO-mandated workers' committees have built collective capacity and negotiated successfully for important workplace improvements. Yet these organizations are fragile because of their ambiguous legal status and firm-level nature. Workers' committees and their representatives do not benefit from the same protections under Ecuadorian labor law as unions and they do not have the right to negotiate legally binding collective bargaining agreements. Although they gain external support through their FLO ties, the firm-level nature of these groups limits their power and could make them susceptible to inappropriate management influence. Despite these challenges, fair trade workers' committees provide a critical forum for collective empowerment and a key avenue for advancing labor rights in the Ecuadorian flower sector and potentially in other countries and commodities.

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