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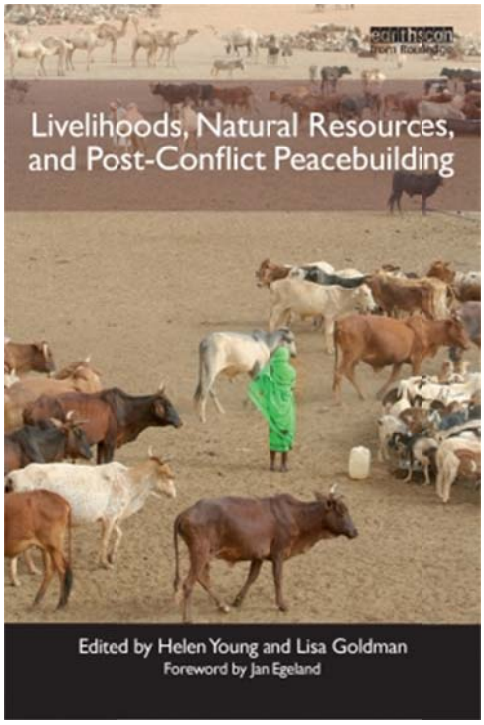

Linking to Peace: Using BioTrade for Biodiversity Conservation and Peacebuilding in Colombia

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Linking to peace: Using BioTrade for biodiversity conservation and peacebuilding in Colombia

Lorena Jaramillo Castro and Adrienne M. Stork

The creation of sustainable livelihoods for conflict-affected individuals and communities is crucial for a successful post-conflict peacebuilding and recovery process. To ensure a successful recovery, excombatants, associated groups, and conflict-affected communities need to be involved in economically, socially, and environmentally feasible livelihood activities that will continue once external support ends. This requires a reintegration and recovery process that supports peacebuilding objectives and will continue beyond the initial post-conflict intervention.[1] Such a process is especially important in countries where natural resource exploitation played a role in the conflict; research shows that in these cases countries are more likely to relapse into conflict within the first five years following a peace agreement (UNEP 2009). Economic opportunities and

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[1] According to the definitions used by the United Nations Development Programme, the World Bank, and the United Nations Development Group in their *Practical Guide to Multilateral Needs Assessments in Post-Conflict Situations*, the term *post-conflict* refers to the initial two years following the cessation of violence, while the recovery process generally occurs in the first ten years following the end of a conflict (UNDP, World Bank, and UNDG 2004). According to the UN Integrated Disarmament, Demobilization, and Reintegration Standards, *reintegration* is "a social and economic process with an open time-frame, . . . is part of the general development of a country . . . and often necessitates long-term external assistance" (UNDDR 2006, 2). For refugees and internally displaced persons, reintegration is "equated with the achievement of a sustainable return" and is not associated with a time frame (Macrae 1999, 3n2).

benefits are also critical in areas where the lack thereof contributed to the rise in violence.

A value chain approach to supporting post-conflict reintegration and recovery activities provides a means of creating mutually beneficial social and economic relationships among individuals, private entities, government bodies, and communities. It also promotes the generation of employment opportunities in the private sector, which is one of the most challenging aspects of reintegration and recovery programs. The term *value chain* refers to "coordinated relationships between actors who are involved directly and indirectly in a productive activity, with the aim of taking a product or service [such as Amazonian fruits or the natural ingredients for the cosmetic industry] from its supply source and getting it to the customer" (UNCTAD 2009, 3).

Market demand influences how a value chain is developed. There must be a clearly identified market for the chain's products, and those products must have the characteristics and requirements that buyers demand. In addition, participants all along the value chain should be involved in working toward a common goal; this promotes the trust and dialogue that are crucial for peacebuilding, as well as adding economic and employment opportunities at each stage.

Because many countries affected by violent conflict are also highly biodiverse (Hanson et al. 2009), integrating environmental and social considerations into a value chain approach promotes the sustainable management of resources in an economically feasible production system. Furthermore, value chain analyses examine the "horizontal and vertical relationships between different actors in the chain and highlight the power dynamics that influence the ways in which value chains work" (USAID 2008, 12). A value chain approach is therefore an ideal entry point for conflict-sensitive interventions.

Ensuring that economic opportunities presented by a value chain are realized in environmentally and socially sustainable ways is challenging because of the large number of participants in a chain and the variety of environmental and social considerations that need to be taken into account. Especially in a post-conflict recovery environment, poor security, weak governance, or a lack of sufficient infrastructure can pose significant challenges. For example, natural resource–related value chains may be highly corrupted and inefficient where armed groups have usurped control, and conflict may also have detrimental effects on business operations and on the government's capacity for oversight or regulation.

For these reasons, efforts to develop environmentally and socially sustainable value chains that can help to protect natural capital and biodiversity are crucial in countries recovering from conflict, where natural resources are often exploited to restart economic activity and where sufficient environmental and social protection mechanisms may not be in place or may have been substantially weakened during the conflict. Since 2009, such efforts have been undertaken by the United Nations Development Programme (UNDP) and by the BioTrade Initiative of the United Nations Conference on Trade and Development

(UNCTAD);[2] in 2009, UNDP and UNCTAD combined efforts through a pilot project in Aceh, Indonesia.[3]

Although the work in Aceh represents the first program to explicitly engage in BioTrade as a peacebuilding and reintegration tool, prior experience with BioTrade in Colombia can inform those efforts. BioTrade programs were not originally conceived as a tool in peacebuilding processes, but were designed to contribute to biodiversity conservation and poverty alleviation in developing countries. However, experience shows that BioTrade can contribute to reintegration, recovery, and peacebuilding programs.

Through analysis of the BioTrade program implemented in Colombia during the post-conflict period, this chapter examines how such programs can effectively address social equity concerns and integrate natural resource management policies into market-driven value chains to further support long-term economic development. A specific value chain—the Amazonian fruits value chain—is then presented and considered. The chapter proceeds with a discussion of lessons learned from Colombia's experiences in policy making and BioTrade implementation, and concludes with recommendations for integrating BioTrade Initiative programs into the broader peacebuilding and reconciliation framework in conflict-affected areas.

BIODIVERSITY AND RECOVERY IN CONFLICT-AFFECTED AREAS

Between 1950 and 2000—as demonstrated by research published by Thor Hanson and colleagues—two-thirds of Earth's biodiversity hot spot areas had experienced violent conflict (Hanson et al. 2009).[4] In these areas, natural resources provide the sources of livelihoods for the majority of the population; biodiversity-based

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[2] The term *BioTrade*—as defined by UNCTAD and as used in this chapter—refers to the "collection or production, transformation, and commercialization of goods and services derived from native biodiversity . . . according to criteria of environmental, social, and economical sustainability" (UNCTAD 2007, 1). The sustainability of BioTrade is guaranteed by adherence to principles related to conservation and sustainable use, economic feasibility, generation of sustainable livelihoods, and respect for the rights and culture of all people involved in the chain (UNCTAD 2007).

[3] UNCTAD and UNDP have been working separately on BioTrade and reintegration programs, respectively, for over a decade. In 2009, the two organizations established the UNCTAD-UNDP Joint Initiative on BioTrade and Reintegration. As part of this joint initiative, the pilot project in Aceh was developed with the aim of supporting peacebuilding and reintegration efforts there. The assessment and project-planning phase was completed in 2010, and project activities began in target communities in January 2011.

[4] To qualify as a biodiversity hot spot, a region must meet two strict criteria: it must contain at least 1,500 species of vascular plants, and it must have already lost at least 70 percent of its primary vegetation. The term *hot spot* was coined by Norman Meyers and is described in detail in Mittermeier, Myers, and Mittermeier (2000).

resources are commonly used for shelter, medicine, food, and recreation; and when possible, products derived from such resources are sold in local, national, or international markets for cash income. In addition, such resources are often associated with traditional knowledge that is an important part of social cohesion and cultural connections.

Addressing biodiversity loss is challenging in any area of the world, but in conflict situations the threat of violence, lack of security, disruption of social structures, and weakened governance capacity often make this task even more difficult. In addition, highly valuable species in biodiversity-rich areas can easily be exploited to fuel armed conflict. In other places, biodiversity may become threatened because of the presence of armed groups and efforts to rout them out, especially where they may be using dense forest to protect their bases.

In order to protect biodiversity in conflict-affected areas, it is necessary to align biodiversity conservation objectives with economic recovery efforts. To avoid contributing to the overexploitation of natural resources, recovery and peacebuilding leaders should promote livelihood strategies that help conserve biodiversity, use natural resources for sustainable development purposes, and encourage socially inclusive economic behaviors following the conflict. Because BioTrade works through a value chain approach that builds capacity and encourages sound natural resource management, it represents an effective tool that will help post-conflict recovery practitioners to achieve these goals.

Post-conflict economies depend on natural resources for recovery, and given the environmental degradation that occurs during conflict and the need to ensure a strong peace dividend in the critical first decade following the cessation of hostilities, recovery practitioners need to ensure that sustainability measures are employed. Many conflict-affected areas are high in biodiversity and contain large forests, swamps, and other valuable carbon sinks, which make them especially important for the future of the countries' economies post-2012, when countries with large tracts of tropical forests will be able to take advantage of international financing mechanisms for protecting their forests and other biologically diverse areas.[5] These natural resources can also support the diversification of a region's or country's economy with biodiversity-based, environmentally friendly products.[6]

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[5] The post-Kyoto climate change negotiations have sought to develop the mechanisms for rewarding developing countries for preserving their carbon stocks, such as forests, wetlands, and agricultural lands, although as of September 2014 countries have yet to agree upon such a mechanism.

[6] The Economics of Ecosystems and Biodiversity study's report for businesses states that by 2050 sustainability-related global business opportunities in natural resources (energy, forestry, food and agriculture, water, and metals) will be in the range of US$2 trillion to US$6 trillion (Bishop 2012). The United Nations Environment Programme's green economy report illustrates the benefits of greening economies for lowering environmental risks, including scarcity of natural resources, and providing development opportunities for the world's poor (UNEP 2011).

However, traditional post-conflict recovery programs have not specifically integrated these concerns into their projects. As the environment, biodiversity, and climate change become larger issues on the international agenda, it will be especially important for post-conflict recovery programs to provide livelihoods support to affected populations and promote peacebuilding in ways that will reinforce the conservation of biodiversity and integrate biodiversity into economic development plans.

THE BIOTRADE INITIATIVE

Launched in 1996, UNCTAD's BioTrade Initiative provides specific financial and technical support that reinforces sound natural resource management, conserves biodiversity, and increases opportunities for economically sustainable trade through value chain development. The initiative contributes to poverty alleviation by creating or strengthening the livelihoods of populations whose economic activities are related to biodiversity. It works through implementing partners in specific countries and in the international arena to build capacity for the successful implementation of BioTrade principles within value chains.

The initiative's efforts further the three objectives of the Convention on Biological Diversity—conservation of biodiversity, sustainable use of its components, and fair and equitable sharing of benefits—while promoting socioeconomic sustainability, compliance with national and international regulations, respect for the rights of people involved in BioTrade activities, and clarity about land tenure and access to natural resources.[7] Together, these objectives constitute the seven principles of the BioTrade Initiative.

Working in accordance with these principles, the BioTrade Initiative develops programs with national, regional, and international partners. This may include strengthening the companies and producers involved, as well as improving the institutional policies and the organizational structure of selected biodiversity-based sectors. The initiative thus requires cooperation, communication, and negotiation among a variety of stakeholders, from government bodies to citizens' groups to the private sector, to ensure that commonly held objectives are met in sustainable and equitable ways. It also requires that practitioners examine key issues that are contentious in post-conflict situations, such as land allocation and resource access, in order to ensure the sustainability of the initiative.

BioTrade programs and activities have been implemented in more than fifteen countries in Asia, Africa, and Latin America (see map on page 6); of these, Colombia, Indonesia, Mozambique, and Uganda have been affected by armed civil conflict. Bolivia, Brazil, Ecuador, Mozambique, Peru, South Africa, and Zimbabwe have also been affected by lower-level internal conflicts over land rights and access to natural resources. All of these countries have high rates of

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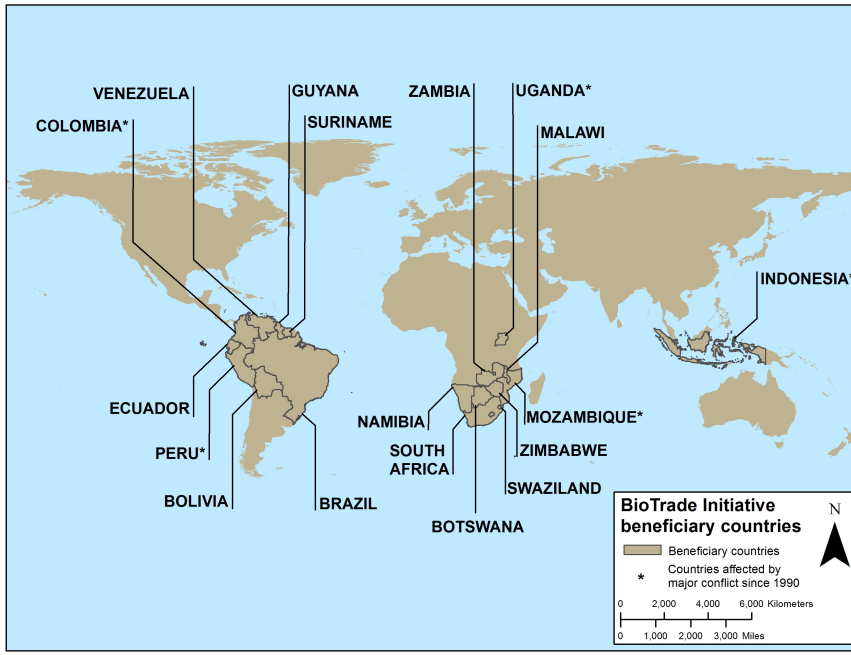
[7] For the text of the Convention on Biological Diversity, see www.cbd.int/convention/text/.



Note: *Major conflict* is a conflict resulting in more than 1,000 battle-related deaths overall (Bruch et al. 2015; UCDP n.d.).

biodiversity and depend on natural resources as one of their primary sources of economic earning. The biodiversity-based sectors currently supported in these countries include flowers and foliage; handicrafts; sustainable tourism; and natural ingredients for the food, cosmetic, pharmaceutical, and fashion industries.

In countries where it has been implemented, BioTrade has been mainstreamed into national and international policy frameworks as well as business practices through linkages with small and medium-sized enterprises (SMEs) and other companies in the Americas and Europe. In addition, an informal network of both South-South and North-South private, public, and academic-sector stakeholders has been established to cooperate and exchange information and experiences related to accessing markets, strengthening value chains, implementing environmentally and socially friendly practices, and developing incentives for biodiversity conservation. BioTrade Initiative activities have been developed primarily in partnership with the Swiss State Secretariat for Economic Affairs.

The effects of BioTrade programs and activities are being documented with the BioTrade Impact Assessment System, which analyzes environmental, socio-economic, and governance indicators. Initial results showed that, as of 2010, BioTrade programs had benefited more than 30,000 families and have led to the implementation of conservation and sustainable-use practices on over 700,000 hectares of land.

The value chain approach makes support to key sectors possible within the framework of BioTrade programs. The various participants in a value chain—such as producers, processors, distributors, traders, and regulatory and support institutions—begin with the understanding that there is a market demand for the value chain's products and services. They then articulate a joint vision to identify mutual needs, limitations, and strengths and to begin working cooperatively to achieve their goals (UNCTAD 2009). The common goals are defined and agreed upon in a participatory process, and are then translated into sector strategies that promote the sustainable trade of biodiversity-derived products and services.

This approach provides opportunities to also achieve peacebuilding objectives in two principal ways. First, it allows for the integration of producers with processors and market participants so information can flow between various links in the value chain, thereby enhancing communication and transparency among various groups to ensure that economic benefits are realized fairly throughout the process of production. In post-conflict situations, the creation of such linkages provides a neutral platform where a variety of people in the public and private sectors can come together with small landholders and producers to establish common goals and procedures that will provide benefits for all. Such platforms for dialogue also present an opportunity to plan for future activities and to raise other issues relevant to the stakeholders, such as the allocation of resources and relationships to state and local governments.

Ensuring that economic benefits are fairly distributed throughout a value chain is particularly important in post-conflict situations, especially in Colombia. Research by Oeindrila Dube and Juan F. Vargas shows that in labor-intensive economic sectors (such as coffee growing, horticulture, and other agriculture), declines in wages led to higher rates of violence by increasing the likelihood that members of disadvantaged populations will be recruited by or susceptible to the influence of armed groups (Dube and Vargas 2006).

Second, a successful value chain requires that participants are willing to engage in implementation of the strategy by contributing time, energy, and resources, while also sharing responsibility for the associated risks and benefits. Value chain development strategies build on existing capacity and knowledge and promote the coordination of activities and the establishment of partnerships among all participants. Collaborative arrangements can enhance the competitiveness of the chain and facilitate cooperation and coordination among different actors. In post-conflict situations, the creation of new linkages and interdependencies between communities and other value chain participants, such as private sector firms and government agencies, strengthens mutual benefits and understanding, while also providing forums for dialogue.

When value chain participants work independently of one another, they lack relevant information that could improve their functioning. Universities and research organizations may develop studies that are not compatible with the existing productive activities in their region. SMEs may produce and transform plant and animal species without any scientific knowledge of the species' properties, such

as regeneration rates, or the species' capacity to add value. For their part, local governments and donors may build processing facilities that are not fully adaptable to the local infrastructure. However, once value chain participants collaboratively define the goals and activities they want to develop as a group, they can begin to build trust and communication, which can foster coherence and synergies between their activities. For example, the SMEs can define—on the basis of their needs—possible research topics to be taken up by universities. Then research institutions, government bodies, and development agencies can fund the recommendations emerging from such research.

The BioTrade Initiative value chain methodology involves five result-oriented steps (see figure 1). These steps enable the bottom-up analysis of existing information on a selected sector or value chain, including its market potential, and they later guide the formulation of specific strategies to support the growth of the sector or chain. The support offered through this methodology, together with its bottom-up approach, ensures that communication and information flow within the value chain, while minimizing miscommunications. Products are thus more likely to meet quality standards, improving market access and overall success.

Five basic elements should be considered in the implementation of the BioTrade Initiative value chain methodology (UNCTAD 2009, 3):

- This is a participatory process in which all actors—both productive and institutional—are involved.
- The support given to value chains involves environmental, social and economic objectives, in accordance with the BioTrade Principles and Criteria, which are analyzed together with the other technological criteria essential to market entry.
- The process focuses on market demand and the sector's potential to enter these markets.
- Strategy development is based on concrete goals for [domestic sales as well as] export and for strengthening the process of entering markets in the short and medium terms.
- This is a flexible process that can be adapted to specific conditions within a country.

Through this methodology and in accordance with the seven BioTrade Initiative principles, projects are planned and implemented with a view toward ensuring maximum social, economic, and ecological sustainability. This approach can be aligned effectively with peacebuilding and recovery programs, which are under extreme pressure to provide employment and income-generating opportunities that will also address social concerns and have a lasting effect on stability, providing a visible peace dividend to conflict-affected populations.

BIOTRADE IN COLOMBIA

Until very recently, BioTrade concepts and methodologies were not integrated explicitly into peacebuilding programs. However, BioTrade has been applied in

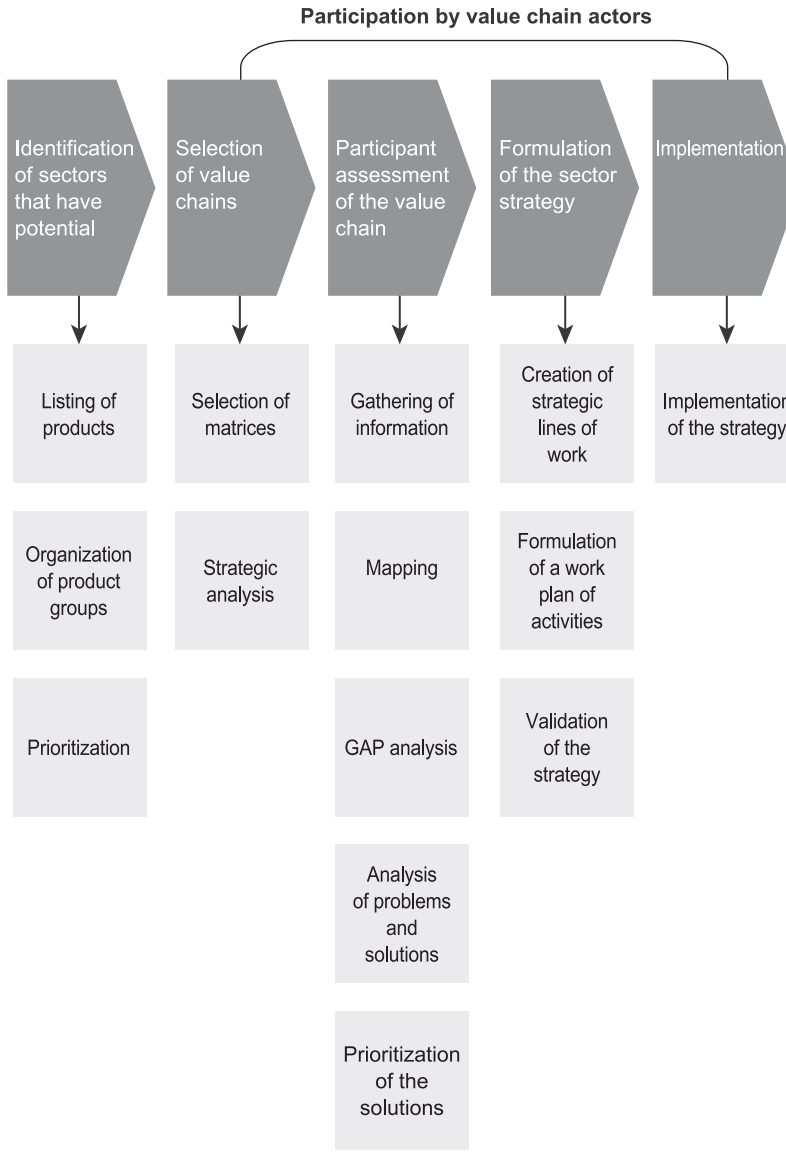


Figure 1. Diagram of the support process for value chains for BioTrade products
Source: Adapted from UNCTAD (2009).

sensitive and highly conflict-affected areas such as the Colombian Amazon, where it has contributed to socioeconomic development.

In Colombia, the national BioTrade program is contributing to the peace process, to the formation of national policies in sustainable rural development, and to the generation of local employment by providing an alternative to the

production of illicit crops. The program is also enhancing interinstitutional linkages so as to foster investment, conserve biodiversity, and diversify exports (Pardo Fajardo, Hernández, and Ramos 2000). This section discusses how the Colombian BioTrade program has contributed to peacebuilding and biodiversity conservation objectives in the departments of Amazonas, Caquetá, and Putumayo in southern Colombia's Amazon region.[8]

The civil conflict and natural resources in Colombia

The conflict in Colombia has been ongoing with varying levels of intensity since the cessation, in 1966, of La Violencia—nearly two decades of tensions between the Conservative and Liberal political parties. These tensions often played out through acts of extreme violence that involved insurgent and paramilitary groups and that frequently targeted civilians. The violence occurred mainly in rural communities and was primarily concentrated around struggles for control of land in the rich, coffee-producing regions of the country (Rouvinski and Vasquez Sanchez 2005). The installation in the national government of a bipartisan coalition between the Conservative and Liberal parties in 1957 led to a decrease in violence and the demobilization of most of the armed groups; however, the remnants of these armed groups formed the basis for the guerrilla forces that are still in operation today.

In 1964, the largest guerrilla group in Colombia, the Revolutionary Armed Forces of Colombia (Fuerzas Armadas Revolucionarias de Colombia, or FARC), formed with the aim of defending peasants' rights, overthrowing the government, and forming a communist-agrarian state. Two years later, the second-largest guerrilla group, the National Liberation Army (Ejército de Liberación Nacional, or ELN), was formed. Both groups originated with followers mostly in rural areas and initially targeted government military structures and infrastructure, although over time they have been charged with using the narcotics trade for self-financing and have been implicated in increased targeting of civilians and in attacks on urban areas.

In spite of attempts in the 1980s to negotiate peace accords with the guerrilla groups, the conflict intensified in the late 1990s as the FARC and others sought to capture the political space left vacant by the defeat of the Medellín and Cali drug cartels. The number of kidnappings and acts of extortion also increased in this period. A demilitarized zone (DMZ) was created south of Bogotá as part of peace negotiations between the government and the FARC between 1998 and 2002, but this led to further targeting of urban areas and higher civilian casualties overall. After talks collapsed in 2002, the FARC continued to target urban areas and was pursued by government forces.

Aside from insurgent groups and the national armed forces, the other major actors in the conflict in Colombia are right-wing paramilitary groups, many of

[8] Colombia is administratively divided into departments, which are further divided into municipalities.

which were formed by rural elites in response to the guerrilla movements. These paramilitary groups developed to protect large landowners and became a force for promoting the economic interests of large-scale haciendas that grew cash crops and employed rural peasants as wage laborers or sharecroppers (Elhawary 2008).

As the paramilitary groups grew in size and number, they came to include drug traffickers and former members of the national armed forces, as well as combatants recruited by those holding grievances against the guerrilla groups. In 1997, several smaller paramilitary groups joined together to form the United Self-Defense Groups of Colombia (Autodefensas Unidas de Colombia, or AUC), who, in their efforts to combat guerrilla groups, are reported to have increased violence against civilians throughout the 1990s. AUC was placed on the U.S. Department of State's list of foreign terrorist organizations in 2001.

The voluntary demobilization of members of the AUC was negotiated in 2002, and since then some 32,000 former AUC members have been demobilized. Additionally, 18,000 former members of the FARC and ELN have voluntarily demobilized since 2002 (CIDDR 2009). Since 2006, the Colombian High Council for Reintegration (ACR) has managed the demobilization and reintegration process with support from the UNDP, the International Organization for Migration, and various international governments and nongovernmental organizations (NGOs).

The conflict in Colombia escalated during the 1990s due to the expansion of guerrilla and paramilitary activities (Dube and Vargas 2006). Many more people were displaced from their land, and nearly one-third of agricultural land was estimated to be under the control of drug traffickers by the end of that decade (Pettersson 2000). As a result of the violence and consolidation of landownership, the number of internally displaced persons in Colombia since the 1990s has been the highest in the Western Hemisphere and second highest in the world (Moloney 2006).

From 1995 to 1998, 40 percent of all municipalities in Colombia experienced at least one instance of internal displacement, and in nearly 20 percent of those, displacement occurred almost constantly (Rouvinski and Vasquez Sanchez 2005). In addition, since the 1950s, the per capita gross domestic product for rural populations has been roughly half of that for urban populations, although urban poverty has grown with the increasing migration of internally displaced persons to urban areas. Colombia's urban population increased from 57 percent of the total population in 1951 to 74 percent in 1994 (Rouvinski and Vasquez Sanchez 2005).

Despite good overall economic growth rates throughout the 1990s, attributed primarily to booms in the coffee sector and the illegal drug trade (Rouvinski and Vasquez Sanchez 2005), the rural population of Colombia has mostly remained impoverished. This is largely due to the absence of land reform in rural areas and the increasing consolidation of land assets during the waves of violence from the 1950s onward (Pettersson 2000). Colombia has one of the most highly concentrated landownership patterns in the world: 0.4 percent of landowners control 61 percent of rural land. This leaves rural populations, who have little control over their assets, extremely vulnerable to violence and displacement (ABColombia 2010).

The civil violence in Colombia has affected numerous parts of the country over the years, with the most intense violence occurring along the Atlantic coast in the north, where much of the drug trafficking takes place; in the Cauca river valley in the southwest; in the departments of Caquetá and Putumayo along the border with Ecuador; and in the Amazon region in the southeast, where the FARC is still present (ABColombia 2010). Rural development is essential in these areas to strengthen the capacity of municipal administrations to provide essential public services, to promote local development activities, and to help reduce vulnerability to violence from armed groups.

The national Sustainable BioTrade Programme in Colombia

In Colombia, the national Sustainable BioTrade Programme was launched in 1998 as the pioneer BioTrade effort worldwide. It is managed by the Ministry of Environment, Housing and Territorial Development and the National Technical Committee on Biodiversity and Competitiveness. The Alexander von Humboldt Institute for Research on Biological Resources (Humboldt Institute), BioTrade Fund Colombia (Fondo Biocomercio Colombia), Sustainable BioTrade Corporation (Corporación Biocomercio Sostenible), and the Sinchi Amazonic Institute of Scientific Research (Instituto Amazónico de Investigaciones Científicas, also known as the Sinchi Institute) are some of the key entities that are implementing the initiative. Local and regional support comes from authorities such as the regional autonomous corporations and other public, private, and academic partners.

The Sustainable BioTrade Programme in Colombia is benefiting more than 1,850 projects managed by private and community organizations in five sectors (MEHTD 2009; see figure 2): sustainable agriculture systems for medicinal plants, fruits, grains, and other products; nontimber forest products, including fruits, flowers, foliage, fibers, honey, and seeds; wood and guadua (a type of bamboo) products that are sustainably derived from forests; ecotourism; and fauna for food for humans and pets, such as beetles, butterflies, caiman, capybara, frogs, and ornamental fish.

There is potential in national and international markets for Colombian BioTrade producers and SMEs, but the time and resources required to make a value chain successful are substantial. A 2005 national survey of one hundred BioTrade SMEs, micro-SMEs, and community-based organizations found that 20 percent were just forming (they had been in existence less than one year and had acquired infrastructure and equipment), 51 percent were starting production and sales of their goods, 18 percent were consolidating their activities (they had recovered their initial investment and were establishing themselves in their target market), 10 percent were expanding, and 1 percent were in liquidation (Lozada and Gómez 2005). Coordinated work with public, private, and academic stakeholders and development agencies is essential to prevent duplication of effort and to realize a cost-effective intervention that addresses real needs and common goals—features of a value chain approach.

Figure 2. Value chains in Colombia supported by the national Sustainable BioTrade Programme
Source: Gómez and Ortega (2007).

Implementation

In 2006, in the departments of Amazonas, Caquetá, and Putumayo, Humboldt Institute in cooperation with the Corporation for the Sustainable Development of the Southern Amazon (Corporación para el Desarrollo Sostenible del Sur de la Amazonía, or CORPOAMAZONIA)[9] implemented a project to strengthen

[9] CORPOAMAZONIA, headquartered in Putumayo, is a regional autonomous corporation for the departments of Amazonas, Caquetá, and Putumayo. As a regional autonomous corporation, CORPOAMAZONIA is a public entity, responsible by law to manage—within its territory of jurisdiction—the environment and renewable resources, and to foster the sustainable development of the country.

BioTrade business initiatives in the value chains of Amazonian fruits, handicrafts, flowers, and foliage (Arcos Dorado et al. 2009). Other participants included local universities, business support organizations, and NGOs. The project provided support to these initiatives in three phases.

In the first phase, the national Sustainable BioTrade Programme evaluated and analyzed business initiatives according to BioTrade Initiative principles and criteria to identify the initiatives' limitations and strengths with respect to the social, economic, and environmental components of BioTrade. The forty-eight projects involved included not only private initiatives (66 percent), but also initiatives by farmers and indigenous communities (34 percent). These farmer and indigenous community initiatives were based in Putumayo (40 percent), Amazonas (31 percent) and Caquetá (29 percent). Men led 63 percent of the projects, which were primarily small, family-based initiatives.

Business development occurred during the second phase. Practitioners implemented actions to strengthen and incubate business initiatives identified in the first phase, addressing technical, commercial, and management needs. For example, practitioners developed business plans for twenty-seven initiatives, and according to the priorities established in those plans, practitioners received support for equipment purchases, implementation of marketing strategies and commercialization, and acquisition of the required legal permits.

In the third phase, practitioners turned to marketing and commercial strategy, assessing various strategies for regional and international markets and implementing those that were most appropriate for the unique characteristics of the region and the participants. For example, within the native Amazonian fruits chain, a regional identity strategy was developed that included a communication strategy involving a unique logo and the phrase *Amazonia, esencia de vida* (Amazonia, essence of life). Guidelines for the use and management of this brand were finalized by CORPOAMAZONIA, and a consultancy is being implemented to register it as a trademark. Furthermore, the BioTrade Observatory established an online platform where national and regional buyers and sellers of Amazonian products could meet.

Because an enabling policy environment is essential to foster the development of value chains, BioTrade Initiative partners worked with government entities to mainstream the prioritized chains in regional and local development strategies. For example, the regional competitive plan for Caquetá—Caquetá Vision 2032—established that "in the year 2032, the Caquetá region will be integrated into the international trade and will be the most competitive Department in the Colombian Amazon region, through the supply of high-value added goods and services, the consolidation of BioTrade and strengthening of social and human capital" (Regional Competitiveness Commission 2008).[10]

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[10] Translation provided by Lorena Jaramillo Castro and Adrienne M. Stork, authors of this chapter.

Conflict dynamics in the Amazon region and the impact of BioTrade programs and activities

The Amazon region of Colombia spans the departments of Amazonas, Caquetá, Cauca, Guainía, Guaviare, Meta, Nariño, Putumayo, Vaupés, and Vichada. It has a population of nearly 1 million people, including members of fifty-eight indigenous groups, who represent over 50 percent of the region's population (Bolivar et al. 2008). Reserves of land for the indigenous populations, *resguardos*, cover 20 million hectares of the Colombian Amazon region and are an important contribution to biodiversity conservation in the area (Hammen 2003). Rainforest covers 35 percent of Colombia's land area, making the country one of the most biodiverse in the world (Hungerford 2010).[11]

The Amazon is one of the regions most highly affected by the conflict in Colombia. As one of the primary growing areas for coca, it is also a strategic region for narcotrafficking and antinarcotics activities (Ramirez 2003). The Colombian government has heavily sprayed the departments of Guaviare, Nariño, and Putumayo with herbicides in an effort to halt the cultivation of coca and to regain access to U.S. development funds as part of Plan Colombia (Rouvinski and Vasquez Sanchez 2005).[12] This aerial herbicide spraying has destroyed agricultural crops and sections of forest and has adversely affected the health and economic well-being of the indigenous people who live in these areas and depend on the rainforest for their survival, including the Awa people, who are listed as an endangered group by the United Nations.

The protests against spraying and other responses by the civil society–based Cocaleros Social Movement led to an increased presence in the late 1990s of paramilitary groups that are closely linked with the national army. Violent conflict ensued (Ramirez 2003). High levels of mortality among the civilian population followed as the FARC, the government, and the paramilitaries fought over territorial control and control of the drug trade in rural and urban areas. The results of the conflict include high levels of displacement of indigenous people and the capturing of land, often through violent means, by paramilitaries and guerrilla groups.

Displacement has been higher among indigenous people than for the rest of the population. Although indigenous people constitute only 3.4 percent of the total population in Colombia, they represent 7 percent of those displaced (ABColombia 2010). As a result of disruptions in transport networks, including the blockading of roads, farmers who are involved in the production and sale of

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[11] Colombia hosts many endemic species. It is listed among the ten most biodiverse countries in the world in all main categories; it is number one for amphibians.

[12] Plan Colombia—an extensive counternarcotic program developed to respond to the country's rampant drug production and paramilitary violence—was launched in 1999 during the administration of President Andres Pastrana (1998–2002) and backed by international support, including U.S. funding. The program was designed to address human rights violations, bolster democratic institutions, promote economic recovery, and assist internally displaced persons.

BioTrade commodities in the Amazon region often have difficulty delivering goods to markets.[13]

In conflict-affected communities where the BioTrade Initiative has contributed to the development of sustainable livelihoods, social, environmental, and economic benefits are being generated. The funds generated by BioTrade activities in rural communities in Colombia's southern Amazon region represent a high percentage, and sometimes the sole source, of income for many families. In terms of direct employment, 46 percent of the initiatives generated between one and five salaried jobs with benefits. However, only 2 percent of the initiatives generated over one hundred jobs, and 18 percent did not generate any direct employment (Arcos Dorado et al. 2009).

Most of the BioTrade projects in the Amazon region involve agroforestry practices (25 percent) and collection from secondary forests (20 percent). Among the surveyed enterprises, the most common biodiversity-conservation and sustainable-use practices were aimed at the use of raw materials (20 percent), protection of water sources (15 percent), and diversification of crops (13 percent). Other sustainable practices included the creation of live fences and buffer zones, and the enrichment of stubble fields. These initiatives also actively manage their waste in order to prevent pollution of rivers and other water sources and to mitigate the production systems' possible impacts on water (Arcos Dorado et al. 2009).

Overall, the BioTrade activities have strengthened relationships and clarified procedures between suppliers and processing SMEs. The most common practices in this regard include the development of social programs for communities and employees, and policies to promote local employment and good treatment of workers. Other activities that have been implemented include educational and recreational activities, training programs, and hygiene and health programs.

In the case studies below, the authors describe two initiatives—Mukatri, an enterprise in Caquetá, and Pradera Verde Empresa Unipersonal (E.U.) in Putumayo—that worked with Colombia's Sustainable BioTrade Programme and its partners in conflict-sensitive areas. There are also lessons to be learned from unsuccessful projects that Colombia's Sustainable BioTrade Programme and its partners have supported, particularly related to the absence of a market-driven orientation and a lack of competitiveness. These cases demonstrate the need for SMEs to have managerial capacities and the flexibility to address security and market challenges that arise.

CASE STUDIES: AMAZONIAN FRUITS VALUE CHAIN

The Amazonian fruits value chain is the one of the best known in the region because of market interest and the number of operational projects.[14] These projects

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[13] Fondo Biocomercio personnel interviewed by authors, May 2009.

[14] Many details in this case study come from personal communication with José Ignacio Muñoz Córdoba, director general at CORPOAMAZONIA, May 23, 2011.

are located in each of southern Colombia's Amazon departments—Caquetá, Putumayo, and Amazonas—as well as in Guainía and Guaviare. The Amazonian fruits value chain spans activities from the production or collection of raw material to industrial processing, commercialization of final products, and transportation to the final consumer. Ten BioTrade enterprises have been identified in the southern Amazon region that involve collection, production, or processing of fruits—three in Caquetá, four in Putumayo, and three in Amazonas. The department of Putumayo generates 78 percent of the total production, followed by Caquetá (19 percent) and Amazonas (3 percent) (Arcos Dorado et al. 2009).

Some of the commonly used fruits are arazá *(Eugenia stipitata)*, asaí *(Euterpe precatoria)*, borojo *(Borojoa patinoi)*, cocona *(Solanum sessiliflorum Dunal)*, copoazú *(Theobroma grandiflorum)*, chontaduro *(Bactris gasipaes)*, seje *(Jessenia bataua Mart.)*, and papayuela *(Carica candemarcensis Hook)*.[15] The fruits are sold fresh or are processed into value-added products such as pulps, sweets, juices, yogurts, snacks, or wines. The value-added products represent a growing business opportunity and a means of generating livelihood alternatives to illicit crop cultivation. For example, in Putumayo, a hectare of coca generates an estimated annual income for farmers in the range of €700 to €1,000 (approximately US$1,000 to US$1,400), whereas the commercialization of value-added products derived from fruits (for example, juices, concentrates, and sweets) may generate an annual income of €1,000 to €2,000 (approximately US$1,400 to US$3,000).[16]

These fresh fruits and value-added products are mainly sold in local markets; however, a few enterprises have also reached the national market by selling through supermarket chains. Other distribution channels include hotels, restaurants, and specialty stores. There are also a few exports to international markets. The top value-added product produced in the region is yogurt, at six tons per month, and the volume of jams made from arazá reaches nearly one ton per month (Arcos Dorado et al. 2009).

Mukatri

Mukatri, whose name means "origin of natural life" in the indigenous Maku dialect, is an associative enterprise created in 2006. Its productive activities are based on sustainable use; fair relationships with producers, suppliers, and clients; and

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[15] The common English names, respectively, are araza, açai, borojó, cocona, cupuaçu, peach-palm, mingucha, and mountain papaya.

[16] According to the prevailing exchange rates as of December 2013. Personal communication with Luis Miguel Sanjuan, SALOMAR, May 12, 2011. Sanjuan is a retired military officer who is developing an initiative to support 500 to 1,000 families in Putumayo. He participated in the Vitafoods trade fair with the support of the Osec/Swiss Import Promotion Programme (an UNCTAD BioTrade partner that provides assistance for SMEs to access European and Swiss markets).

value addition to native fruits as natural ingredients. The enterprise is working in line with BioTrade principles and criteria.[17]

Mukatri is located in the city of Florencia in the department of Caquetá and processes arazá, cocona, and copoazú. Florencia has a high number of displaced persons, and nearly every family there has lost someone to violence. With the expansion of aerial spraying for coca in the area in the mid-2000s, communities in Caquetá have become increasingly isolated (Médecins Sans Frontières n.d.). The spraying and resulting security complications caused development agencies to cease operations in the department. In addition, aggressive activities by the FARC against multinational companies have reduced the presence and support of the private sector in the area (Stubbert 2007). These effects have threatened the livelihoods of poor farmers and have increased the need for business development support such as that promoted by Colombia's Sustainable BioTrade Programme.

Mukatri's product range includes cookies, sweets, and jams; spicy, sweet, and sour sauces; and pulps derived from arazá, cocona, and copoazú. Its unique and differentiated products are certified organic by Biotropico and sold in local and national markets.[18] To ensure sustainability, Mukatri has established a close partnership with its suppliers, which are grouped under the producer consortium Association of Organic Fruit Growers of Caqueta (Asociación de Fruticultores Orgánicos del Caquetá, also known as Ucayali). Mukatri supported the creation of the association and purchases Ucayali's entire yield at a higher-than-market price; with the support of Masawai, an agro-ecological engineering company, Mukatri also provides technical assistance to enhance the quality and productivity of yields.

Three committees have been established to oversee Ucayali's activities and guarantee that they are pursued correctly and transparently. To be a member of Ucayali, producers need to own their own land, they must have been traditionally working with the requested Amazonian fruits for cash income, and the business activity must not pose a threat to their food security. Hence, the system does not encourage the planting of new kinds of crops, but rather the processing of what exists and was previously being wasted. There is only a 5 percent turnover of Ucayali members annually.

Mukatri has established strategic downstream alliances with distributors in order to access national supermarket chains such as Carrefour and EXITO in Bogotá, Medellín, Pereira, and Cali. At the local market, Mukatri has two points of sale, and its products are available in local supermarkets, hotels, restaurants, and transportation hubs (air and terrestrial). Linking producers in the region to larger national and multinational companies is especially important because the

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[17] Many details in this case study come from personal communication with Gloria Elsy, Mukatri, on February 4, 2011.

[18] Biotropico—an independent certification body in Colombia—certifies organic produce and livestock, and ensures program compliance by Colombian farmers.

area has been increasingly avoided by the private sector, and the lack of investment has been detrimental to overall business development.

With Mukatri supporting livelihoods in Caquetá, the people involved with the associated value chains are better able to avoid the local conflict dynamics among the FARC, paramilitaries, and government forces. The company does not operate specifically to benefit victims of the conflict, but it does engage vulnerable populations, such as female-headed households, and provides jobs to the unemployed (Mukatri 2009).

The relationship between Mukatri and the producer association, Ucayali, has enhanced trust among participants because the producers are receiving a fair price for their products, as well as nonmonetary benefits (such as capacity building and strengthening of the Ucayali's social structure). It allows the sixty-two local families that are part of Ucayali to earn a stable income while increasing the quality of their products. According to the BioTrade Impact Assessment System, the additional monthly income generated by Ucayali members is approximately US$400 per month, for both male and female producers (UNCTAD 2011).

Mukatri is one example of a business initiative that is working according to BioTrade principles and criteria, and with combined support from a number of organizations, it is becoming a model for the region. The company has fostered an entrepreneurial culture in Caquetá, not only by motivating the creation of complementary businesses but also by serving as a model that can be replicated. For example, Mukatri has created employment opportunities through its store in Florencia, a tourist shop that is becoming a sales point for local products—mainly handicrafts produced by female employees and entrepreneurs. Seven local business initiatives (four in coffee and three in handicrafts) have been launched following Mukatri's model.

Mukatri's business in Caquetá has continued in spite of the worsening security situation there. For example, in December 2009, the governor of Caquetá was kidnapped and murdered by the FARC.

Pradera Verde E.U.

Pradera Verde E.U. is located in the Sibundoy Valley in Putumayo.[19] For over fifteen years, it has been processing Amazonian fruits, particularly papayuela. The company was legally established in 2005, and its products include sweets made from papayuela and sixteen natural flavors of cookies. Papayuela is harvested every fifteen days year-round and is also traditionally used by the local population. Pradera Verde E.U. only uses fruit that would otherwise be wasted.

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[19] Many details in this case study come from personal communication with Pradera Verde E.U. leaders Dario Marín Chavarraiga, director of national sales, on May 23, 2011, and Juan Manuel Marin O. on June 1, 2011, and from the 2011 Pradera Verde E.U. company factsheet, other company documents, and a company video. To view the video, see www.youtube.com/watch?v=l3jddjMpimg.

Therefore, it does not threaten food security, and it promotes the conservation of ecosystems by encouraging farmers to earn income by harvesting fruit that is part of the existing ecosystem rather than by converting forests to other uses.

Currently, 200 families benefit from this initiative as a legal economic activity that represents approximately 20 percent of their family income. Additionally, Pradera Verde E.U. strengthens its producers' capacity in harvesting and post-harvest practices. The long-lasting relationship among all of the participants has fostered trust and collaboration.

Because of the quality of its products—the company has high food-safety standards, and its products contain no preservatives or chemicals—Pradera Verde E.U. has been able to position its products throughout the main supermarket chains in Colombia, in addition to selling them locally.

Pradera Verde E.U. has become a model for business initiatives in the area, motivating entrepreneurship among community members who have replicated the model with business ventures related to aquaculture, dairy production, and fruit processing. The papayuela sweet has become an iconic product from the area, and its success demonstrates that legal activities can be financially viable if producers persevere, maintain transparency, and build good relationships with suppliers and clients. The company has been supported in the development and cofunding of its business plan and in trade fair participation at national and international levels. This has been done with the support of CORPOAMAZONIA within the activities developed under the Colombian Sustainable BioTrade Programme.

The Sibundoy Valley is near the city of Pasto and is well connected to various areas of the country; this proximity and connection facilitates the commercialization and distribution of the final products. Due to its favorable microclimate, the Sibundoy Valley is also an attractive region for agriculturalists from other regions, although it has been used by the AUC paramilitaries and FARC guerrillas for troop movements (Colectivo de Abogados "José Alvear Restrepo" 2005). The close association between narcotraffickers and guerrillas represents a formidable security threat to the Putumayo region and to its young people, who are the most susceptible to recruitment into armed groups. Initiatives such as Pradera Verde E.U. that motivate entrepreneurship and build the capacity of young people are therefore especially needed in this area.

Despite attempts by guerrilla groups to establish a presence in the Sibundoy Valley, efforts by the local population and investment in legal agricultural enterprises have enabled the area to avoid falling under guerrilla control. Violence has still affected these communities adversely, however; the guerrilla groups have assassinated eleven of the most prominent businesspeople in the valley.

LESSONS LEARNED

People in conflict-affected areas need to be involved in income-generating activities so they will be less vulnerable to recruitment into armed groups. This is especially true of youth. Supporting the creation of economically feasible

initiatives is essential but also challenging, especially where production and logistics costs are high because of remote locations and limited access to basic infrastructure and services. Such efforts require substantial engagement by public, private, and academic sectors to be effective, particularly where value addition at the local level is needed to guarantee a higher return. Table 1 summarizes the goals, synergies, challenges, and opportunities related to integrating BioTrade projects into post-conflict peacebuilding.

Table 1. Goals, synergies, challenges, and opportunities for integrating BioTrade into peacebuilding

Issue	*BioTrade*	*Post-conflict peacebuilding*
Goals and objectives related to natural resources	• Supports the conservation and sustainable use of biodiversity through trade. • Through its principles and criteria, assesses its own work and that of its beneficiaries toward sustainable development in relation to economic, social, and environmental sustainability. • Engages government representatives, producers, nongovernmental organizations, academia, traders, and others under the common objective of promoting local development by generating initiatives that are socially, economically, and environmentally feasible for excombatants and participating communities.	• Establishes sustainable reintegration options for excombatants, internally displaced persons, and conflict-affected community members. • Recognizes that when conflicts are fueled by disputes over natural resources, relapse into conflict within five years more likely. • Usually is sited in rural areas and is agriculturally based. • Addresses the role of natural resources in supporting livelihoods.
Synergies	• Provide alternative legal livelihoods in areas that are rich in biodiversity and that are affected by conflict dynamics.	
Common challenges	• Must utilize conflict-sensitive approaches that address the specific needs of each group. • Are practiced in conflict areas that often lack infrastructure, are remote, and have limited cooperation among public and private entities; producers tend to be isolated from commercial channels, governance is usually limited, and institutions may be weak. • Have beneficiaries who tend to have high expectations.	
Common opportunities	• Can sustainably generate and commercialize products for niche markets in which price levels reflect the value consumers place on the product or service's special characteristics. • Can provide sustainable livelihood options that support biodiversity conservation and sustainable use. • Promote specialized value chains that have cultural significance and market advantages. • Integrate natural resource management into recovery and reintegration.	

Synergies

The case studies above show that Biotrade, as part of larger initiatives, can contribute to recovery and economic development in conflict-affected areas by increasing the development of products that represent an alternative to illicit crops, by promoting sustainable natural resource management, by supporting the fulfillment of market requirements, by building capacity to create more successful and more competitive products, and by providing opportunities for stronger social cohesion and collaboration.

Opportunities to develop products that represent an alternative to illicit crops play an important role in reducing the vulnerability of farmers and communities to violence associated with narcotrafficking. Such enterprises do not guarantee that farmers will not be pressured to convert land to coca or that they will be able to completely avoid demands by armed groups for involvement and payments, or "taxes." But such opportunities may ensure that the livelihoods that farmers do pursue are more developed, supported, sustainable, and better able to be linked to buyers and markets than they would otherwise be. The products developed through BioTrade are based on local species that are traditionally found in family gardens but not entirely used due to their excess supply; they do not require the introduction of new species or practices that might alter the ecosystem and the current traditions.

In spite of security concerns, sustainable environmental management creates development opportunities in sensitive areas of developing countries. Consumers' consciousness about the environment is growing, as are corporate social and environmental responsibility initiatives. This increases demand for BioTrade products. The origin of such products in conflict-affected areas that are rich in biodiversity and where former combatants are being reintegrated into society can generate an interesting story that motivates consumers who are concerned about environmental and social well-being and about supporting victims of armed conflicts.

Linkages to markets are essential to ensure the feasibility of business initiatives and the generation of social and economic benefits. By helping SMEs and community-based organizations to fulfill specific market requirements, BioTrade programs improve the capacity of the individuals and communities involved in the business to take the necessary steps for the enterprise to achieve viability, to become more competitive, and to generate monetary and nonmonetary benefits for local participants.

The value chain methodology contributes to cohesion and collaboration among participants in conflict-affected areas because it allows for identification of, and agreement on, the needs, concerns, strengths, roles, and responsibilities of all participants in relation to market requirements and demand. It also fosters engagement in activities that enable all interested parties to be involved and informed; this makes dialogue and consensus a possibility. Interested parties normally include government bodies, academia, producers and producer associations, participating

communities and their productive initiatives, other SMEs and business associations, NGOs, intergovernmental organizations, and donors.

Although BioTrade value chains will represent only one element of a recovery strategy, including them as part of recovery and reintegration initiatives in post-conflict situations can have many benefits, including an increase in environmentally sustainable development options, support for the growth of local private sectors, and a strategy for local employment.

Challenges

Implementers of BioTrade value chain projects in conflict-affected areas face challenges similar to those faced by their counterparts in areas that are free of armed conflict, such as limited managerial, productive, and processing capacities; disorganization of value chains; limited product competitiveness; lack of access to financial resources and markets; and insufficient policy frameworks.

The main differences for BioTrade projects implemented in conflict-affected areas are the time frame required for implementation, the need for psychological support and conflict sensitivity, the need for collaboration between peacebuilding and BioTrade stakeholders, and the need to minimize the risks associated with stigmatization of business initiatives from conflict-affected areas.

In addition, BioTrade programs can be thwarted by the paternalism that is common in many post-conflict and development situations—where communities and organizations often receive nonreimbursable support for their activities and can become dependent on outside resources. A clear set of rules and responsibilities is therefore essential, and BioTrade activities should be based on a thorough analysis of the existing power relationships and the implications of past conflict. A failure to address these issues can trigger a renewal of conflict, which would negatively affect the development of an enabling environment for business and entrepreneurship.

Post-conflict recovery programs often face the challenge of providing employment and reintegration opportunities to large numbers of people. The BioTrade Initiative and its programs are specifically designed to support community-level engagement in areas of high biodiversity with the development of products for which there is an established market demand. The initiative will always be only one part of a larger recovery program that may engage in value chain development for nonbiodiversity products in additional areas. Once a BioTrade program is established and has a national or local platform and a template for project implementation, it can be scaled up as needed throughout a particular country or region. Regardless of its place in a larger recovery strategy, BioTrade can raise awareness regarding sustainability and conservation among producers, processors, and consumers along a particular value chain, which is essential for long-term sustainable development.

Longer-term support is needed to develop value chains in conflict-sensitive areas than elsewhere because trust, commitment, institutional structures, and

skills in management, production, and marketing usually need to be further developed. Support should continue for at least five years and must involve an integral capacity-building program that addresses issues such as management, accounting, production, processing, and commercialization, through both education in business theory and practical training.[20] Additionally, the development of BioTrade companies should be accomplished gradually, as practitioners aim for efficient harmonization between the size of the company and the salaries of managers and employees, and as practitioners consolidate current activities before starting commercialization on a larger scale—from local to national to international.

When designing and implementing development initiatives in conflict-sensitive areas, it is important to integrate vulnerable groups into local businesses and communities, and to expand their employment opportunities. This approach closely aligns with the community-based reintegration approach outlined in the United Nations Integrated Disarmament, Demobilization and Reintegration Standards (UNDDR 2006); it supports the reintegration of excombatants and members of armed groups through community-wide support initiatives that encourage their integration and that address the needs of vulnerable youth and conflict-affected populations collectively. Failure to take a community-based approach in the past has resulted in tensions between the target and nontarget groups of a community or area. Support must also build upon existing capacity within the community by addressing the needs of ongoing business initiatives that are important sites of employment creation and replication.

Opportunities

The BioTrade Initiative program in Colombia and its partners have strengthened post-conflict peacebuilding by providing legal economic alternatives for rural conflict-affected populations that discourage the destruction of natural ecosystems and encourage the sustainable use of biodiversity, while promoting the generation of benefits through each stage of the value chain. The value chain approach provides an opportunity for rural populations to link to markets and to rely on biodiversity-derived products, and it provides an alternative to low-skilled and poorly paid wage labor. By engaging with and supporting the value chains, civil society and local, regional, and national governments have contributed to these positive impacts.

BioTrade provides key economic opportunities for post-conflict regions with high biodiversity. The future of development for such regions will depend highly on each region's ability to effectively and efficiently manage its natural resources and on the ability of SMEs to develop value addition, to access markets, and to equitably distribute the benefits generated. The BioTrade Initiative is a concrete

[20] Dario Marín Chavarraiga, personal communication, May 23, 2011.

approach that helps both the public and the private sector to support these goals. The monetary and nonmonetary gains accrue not only to direct suppliers, but to local communities and to national development through an increase in the number of legal businesses and the creation of incentives for complementary economic activities overall.

RECOMMENDATIONS

The lessons learned from this analysis of BioTrade projects yield several recommendations for the development of BioTrade in post-conflict situations.

First, the selection and support of BioTrade value chains in conflict-affected areas must be market driven and in line with traditional practices and culture in order to guarantee that the products can be sold in the target market. Furthermore, direct financial support in the form of both reimbursable and nonreimbursable funding, including rotation funds, should be considered. Contributors should require in-kind or in-cash engagement from the recipients and should promote the professional and personal development of local participants. Beneficiary organizations must have a solid track record and experience working in the area and with local people. When funding is provided, close monitoring is essential, with concrete indicators and checkpoints that are verified by primary and secondary information sources.

In BioTrade programs that provide capacity building and technical assistance for management, processing, and commercialization in conflict and post-conflict areas should meet several criteria. The participants should understand the potential gains of the initiative as well as the scope of their commitment. They must be committed to the product, to the sustainable use of natural resources, and to participation in trainings, meetings, and decision-making processes. Furthermore, they must understand the importance of fulfilling a commercial partnership and the fact that noncooperation can have negative consequences for the overall sustainability of the initiative and for their own participation in it. For example, if the volume, quality, and delivery-time expectations for a project are not met, the initiative can lose its buyers, be unable to buy necessary raw materials from its producers, and even fail.

Activities should seek to engage excombatants and associated groups in order to demonstrate economic alternatives that can help them maintain their separation from armed groups and allow them to connect with peer groups within their community. In so doing, the program can create an opportunity for demobilized excombatants to be reintegrated into the community and to resume civilian life. At the same time, livelihoods assistance should always be complemented by psychosocial support for participants who have been affected by the conflict and who need help to socially reintegrate into society.

Value chain activities need to be mainstreamed into local and national strategies, contributing to an enabling environment that enhances the development of viable legal local business ventures. Such mainstreaming can contribute to the

mobilization of additional support related to technical assistance, applied research, and financial resources. BioTrade projects must be flexible and innovative, and they need to market high-quality and value-added products that are environmentally and socially friendly and that are differentiated from other products, so consumers will value and pay for them.

Finally, the conservation and sustainable use of biodiversity as an element of peacebuilding requires that all participants in the value chain share in its benefits fairly. This not only allows all participants to experience the advantages of being involved in the chain, it also generates trust and transparency among participants.

Practitioners working in post-conflict recovery programs can learn from the experiences of BioTrade in Colombia how to more effectively integrate BioTrade practices into their programs. When they employ BioTrade practices, they can create economic development and employment opportunities that promote sustainable management of natural resources and biodiversity. Such practices are essential for building the foundations for sustainable development as well as for enhancing the private sector and improving market opportunities.

BioTrade should be implemented as part of wider recovery initiatives because it alone cannot provide the volume of employment opportunities typically needed in a post-conflict situation. However, it is an innovative approach that provides ample entry points and demonstrates conflict-sensitivity and inclusiveness through the value chain approach. As an economic recovery option, BioTrade can be especially positive for areas of high biodiversity that require the development of environmentally and socially sensitive business opportunities in order to protect resources for future generations.

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