

**The Role of “Livelihood” Natural Resources in  
Conflict and Post-Conflict Peacebuilding**

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## **Abstract**

Much attention has been paid to the role of high-value natural resources—timber, diamonds, oil, gas, etc.—in exacerbating and sustaining violent conflicts worldwide. However, a number of other, less prominent “livelihood” resources also play a role in, or are affected by, conflicts. Examples of these resources include cocoa in the Ivory Coast, bananas in Somalia and Colombia, charcoal in Somalia, and coffee in Colombia. In some cases, these resources have been used to fund conflicts; in other cases, the production of these resources as a source of livelihoods has sparked shortages and conflict over other resources; and in other cases, conflicts have arisen over control of these resources as a source of valuable income.

In order to strengthen the transition to peace in post-conflict societies, it is important to address the role of these "livelihood" natural resources in peacebuilding efforts, including how these resources and their revenue can be better managed to help prevent a return to conflict. This project explores the various roles that livelihood natural resources play in violent conflicts as well as what post-conflict measures may be taken in order to improve the management of these resources as a central component of peacebuilding, and thereby prevent a return to conflict.

## **Methods**

The methods I employed in order to undertake this project entailed the location and detailed review of existing case studies dealing with livelihood natural resources and violent conflict. During my employment at the Environmental Law Institute this summer I was tasked with conducting research into the roles that these livelihood natural resources played in conflict and in post-conflict peacebuilding. This involved the research of violent conflicts in which natural resources, and more specifically livelihood natural resources, played a role. Once case studies falling into this category were located, they were summarized for my co-author. Research was also undertaken concerning the conflict itself to provide background information and context with which to analyze the role of the livelihood resource in question. Based on the information gathered, themes were identified for each case, and then themes appearing throughout numerous cases were identified as “cross cutting” themes. Based on these cross cutting themes, recommendations were proposed in order to address the roles that these livelihood natural resources played in initiating and/or sustaining violent conflict. All of this information was then summarized into this project.

## **Introduction**

Natural resources, such as diamonds in the Democratic Republic of Congo and timber in Liberia, and their role in violent conflict is a topic that has long been the focus of international debate and analyses. Namely, the role of natural resources in conflict has been broadly categorized into two groups; instances in which certain resources act as a catalyst for violent conflict and instances in which they serve to exacerbate or prolong existing violent conflict. According to studies undertaken by Thomas Homer-Dixon at the University of Toronto<sup>1</sup>, environmental issues can

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<sup>1</sup> Homer-Dixon, Thomas F. “Environment, Scarcity, and Violence.” Princeton, Princeton University Press, 1999.

both prompt and exacerbate localized violent conflicts associated with existing social grievances such as deprivation, inequality, class, and ethnicity. These studies show that, though environmental factors act as more of a catalyst for conflict than a singular source, once the local violence erupts it can expand into more wide-spread conflict. Studies conducted by Collier and Hoeffler<sup>2</sup> suggest that countries' dependence on primary commodities, an extensive category which includes a large expanse of raw materials, is strongly correlated with the probability that these countries will engage in civil wars in order to obtain ownership rights over these resources as an independent, sovereign state. Moreover, Phillip Le Billion asserts that these secessionist attempts are more probable in situations where physically concentrated resources are appropriated by local populations that require foreign investment to realize the full revenue potential of the natural resources. This is due in large part to the notion that these localized populations are likely to attract foreign investment if they are recognized as an independent territory<sup>3</sup>. Michael Ross<sup>4</sup> finds that certain "lootable" commodities, so named for their ability to be easily looted due to ease in accessibility and little bureaucratic infrastructure, have a tendency to prolong violent conflicts. This is a reflection of the fact that the sales of these lootable resources allow those that would traditionally be weaker parties to the conflicts, namely insurgent groups, to independently finance themselves and continue violence. Moreover, in certain cases where the lootable recourse is exceptionally profitable, rebel groups may not have any incentive to negotiate peace if their access to these resources would be cut off by a cessation of the conflict.

In direct contrast to their role in conflict creation and exacerbation, natural resources have, in more recent years, emerged as a method of post-conflict reconstruction and peace. Conca and Dabelko assert that environmental cooperation and peacemaking have the possibility to be "... an effective general catalyst for reducing tensions, broadening cooperation, fostering demilitarization, and promoting peace<sup>5</sup>." Weinthal also argues that environmental cooperation can foster peace, but that in order to ensure sustainability, local actors must be involved in the process<sup>6</sup>. Though specific methods for implementing environmental peacemaking as well as what actors should be involved in the process have been debated, there is a growing consensus that environmental cooperation can be utilized as a mechanism for attaining and sustaining peaceful resolutions to violent conflicts.

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<sup>2</sup> Collier, Paul and Anke Hoeffler. "Greed and grievance in civil war." *Oxford Economic Papers* 56(4). 2004

<sup>3</sup> Le Billion, Philippe. "The Political Ecology of War: Natural Resources and Armed Conflicts." *Political Geography* 20. 2001

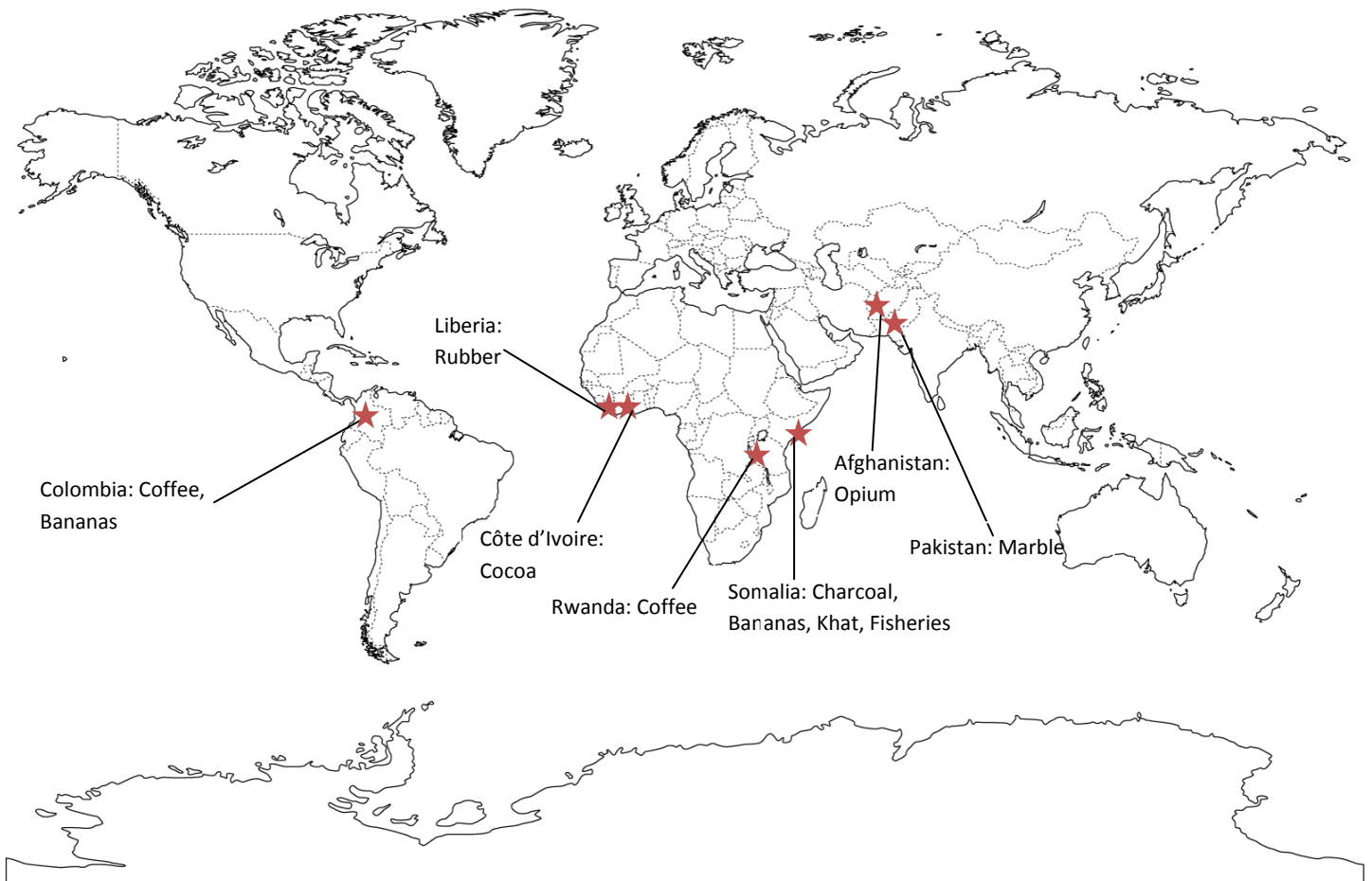
<sup>4</sup> Ross, Michael L. "What do we know about natural resources and civil war?" *Journal of Peace Research* 41(3). 2004

<sup>5</sup> Conca, Ken and Geoffrey D. Dabelko. *Environmental Peacemaking*. Woodrow Wilson Center Press and the Johns Hopkins University Press, chapter 1. 2002.

<sup>6</sup> Weinthal, Erika. The Promises and Pitfalls of Environmental Peacemaking in the Aral Sea Basin. In Conca and Dabelko, chapter 4 (see above). 2002.

Much attention has been given to the interactions of high profile/value natural resources, including oil, diamonds, and timber, and violent conflict. However, there are numerous examples of lower valued “livelihood” natural resources also acting as a significant component in initiating and prolonging violent conflict as well as functioning as an agent for peacebuilding. A concise and comprehensive definition of “livelihood” natural resources has yet to gain consensus among experts, as the value of a resource and its role in the livelihood of a population can be defined and measured in innumerable ways. However, it is evident that there is an undeniable distinction between natural resources such as oil, diamonds, timber, and land, which can generate large sums when marketed, and lesser developed natural resource industries such as bananas, charcoal, and khat which act as a source of livelihood for numerous individuals. These livelihood resources are also, however, capable of generating substantial cash flows when exported in bulk.

In this paper the focus is on the role of such livelihood resources for the purposes of understanding the conditions under which they may instigate conflict and also be a source of post-conflict peacebuilding. The distinction drawn here between high value resources and the livelihood resources in question focuses less on value than on the role these resources play in supporting local livelihoods; a role that livelihood natural resources may play more than traditional “high-value” resources. While the term “livelihood” natural resource does not apply equally to every example, it encompasses a wide range of resources that can be cultivated, quarried, and fished. Livelihood resources act as a means of subsistence; something individuals, families, or small groups can participate in generating both for their own livelihood but also in larger production industries. Because of this nature of the resource, it is susceptible to exploitation and/or overuse by individuals and/or small groups of individuals. Due to the fact that these resources do not engender the same caliber of monetary returns as the more widely publicized high value natural resources, their role in instigating, facilitating, and prolonging violent conflict has not been closely examined. Thus, this thematic analysis attempts to illuminate the substantial part that these livelihood natural resources can play in conflict and, conversely, the opportunities for these same resources to facilitate post-conflict peacebuilding.



**Figure 1: Map of conflicts discussed in project in which livelihood natural resources played a role.**

Livelihood natural resources can and have played a variety of roles in violent conflicts as well as post-conflict peacebuilding efforts. They can act as the source and initiation factor of violent conflict when there are disputes over ownership of, access to, and control over the resources in question. Profits generated from the exports and sales of these livelihood resources can offer a significant funding source and prolong conflicts when they are allocated to the purchase of arms and militia salaries. Revenues generated from these resources can also serve to fuel government corruption that can initiate and exacerbate conflict. More specifically, these profits are derived from a multitude of activities including direct profits from the sale of the resources, taxing all resource exports, demanding protection payments from producers and shippers, and controlling the routes utilized for the shipment of the resources. Moreover, the transport of certain livelihood resources can aid and facilitate the trade and transport of arms to and between militant groups engaged in violent conflict. The production of certain livelihood natural resources can also serve to intensify and prolong conflict in several ways. More specifically, the production of certain resources is characterized by an intense extraction and refinement process that can create shortages of alternate resources and serve to spark local conflicts. This is especially true when the production of these resources acts as a source of livelihood for local communities. In

instances such as these, resources are more prone to unsustainable overharvesting practices, which in turn can force populations to relocate when the resource in question is no longer a viable source of livelihood and/or revenue. These mass migrations can lead to further conflicts when the migratory populations infringe on neighboring territories. In instances where communities are financially dependent on the production and export of specific livelihood natural resources, fluctuations in the world market and prices of these resources can act as an agent of violent conflict as well.

Livelihood natural resources can also facilitate peacebuilding transitions between periods of conflict and peace, and act as agents for post-conflict reconstruction. For example, the utilization of natural resources in the reintegration of former militia can ensure continued peace and prosperity by providing a new societal role for these previous proponents of the conflict. Moreover, equitable partitioning and proper education concerning sustainable resource management can ensure alternate sources of livelihood for populations dependent on local resources which in turn can limit the conflicts associated with these situations. Moreover, certain livelihood natural resources can aid in post-conflict reconstruction, both on an economic and a social level, through joint management in which previously warring factions participate in programs intended to generate revenue for the rehabilitation of their community.

It should be noted that these categories are not exhaustive and, moreover, are by no means mutually exclusive. There are many instances in which a single resource can contribute to conflict in multiple ways.

The following discussion of the role of livelihood natural resources in conflict and post-conflict reconstruction is broken down into three broad categories. An overview will first be given of specific cases involving livelihood natural resources and their contribution to violent conflicts. There will then be an analysis of cross cutting themes that emerge within the case studies presented. Finally, the discussion will conclude with some recommendations to policy makers for methods to limit the contribution of livelihood natural resources to violent conflict as well as how best to harness these same resources to facilitate peacebuilding in war torn societies.

## **Overview of Cases Involving Livelihood Resources and Conflict**

There are numerous illustrative examples involving the role of livelihood resources in violent conflict and it is necessary to explore several of them in order to better understand the trends and themes that characterize this type of natural resource.

### **I. Somalia**

Somalia provides an informative case study encompassing several different natural resources and their subsequently diverse roles in the conflict. More specifically, four different livelihood resources have been involved in the continuing violent conflict in the country; charcoal, bananas, fisheries, and khat. The conflict itself has been characterized by a massive power struggle between scores of rebel groups representing numerous factions, resulting in a country that has lacked any clearly defined leadership structure since it collapsed as a socialist state under the

dictator Major General Muhammad Siad Barre in 1991<sup>7</sup>. The resulting roles that natural resources have played in the exacerbation of this conflict are varied.

### *Charcoal*

In the case of charcoal, this specific livelihood resource has contributed to the conflict in several ways, including through its production process. This fuel source is manufactured by burning wood at exceedingly high temperatures in enclosed areas, such as inside of steel drums or in make-shift ovens that are dug directly into the ground and surrounded by brush and concrete blocks<sup>8</sup>. This resource intensive production process has resulted in the large-scale deforestation of much of the country's landscape, especially in the acacia groves<sup>9</sup>. This deforestation, in turn, causes subsequent loss of ground cover and root systems which can exacerbate the prevalence of desertification, or the degradation of land. Moreover, desertification deprives the inhabitants in Somalia of cultivatable land necessary for farming and grazing practices and could force them to relocate to areas with more favorable conditions. The repeal of the charcoal ban in 1996 reinstated this resource as a viable source of income, able to garner a significant profit with relatively low expenditures<sup>10</sup>. Subsequently, control of charcoal resources has led to violence among clans. Furthermore, revenues from charcoal exports have aided in funding the various warring factions in their struggle for power. This revenue is generated not only from the actual sale of the resource, but also from the control over the transportation and export routes that the charcoal must pass through in order to be brought to market. Warlords collect taxes at roadblocks that they install in their respective territories and charge fees for the transport of charcoal in the ports that they control. External actors, namely the Gulf States, continue to make this charcoal trade viable. They have enacted severely strict local laws aimed at reducing deforestation within their borders and, as charcoal production can explicitly result in deforestation, they must import their charcoal from outside sources<sup>11</sup>. This legislation, coupled with previous bans placed on importing livestock from Somalia, has served to simultaneously encourage a lucrative charcoal trade while prohibiting other resource exports that would provide for alternate sources of livelihood for the people of Somalia.

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<sup>7</sup> GlobalSecurity.org, Somalia Civil War. <http://www.globalsecurity.org/military/world/war/somalia.htm>

<sup>8</sup> Baxter, Zach. "Somalia's Coal Industry." ICE Case Studies, Number 201, May 2007. Available at: C:\Users\Owner\Documents\MP\Low-Value Natural Resources\Charcoal-Somalia\Somalia and the Charcoal Trade.mht

<sup>9</sup> Gross-Kettler, Sabrina. "External actors in a stateless Somalia-A war economy and its promoters." Paper 39; 2004; Bonn International Center for Conversion.

<sup>10</sup> *Id*

<sup>11</sup> Baxter, Zach. "Somalia's Coal Industry." ICE Case Studies, Number 201, May 2007. Available at: C:\Users\Owner\Documents\MP\Low-Value Natural Resources\Charcoal-Somalia\Somalia and the Charcoal Trade.mht

## ***Bananas***

Bananas are another livelihood resource that have played a role in the violent conflict in Somalia. Though initially a significant source of revenue, banana farms were abandoned by many international companies and unfairly expropriated from local growers by the numerous warring factions in the country. In an effort to keep these rebels from looting their land and possibly incurring charges for water utilized for irrigation, many farmers purposefully damaged the farms before they fled. Those farms that were not intentionally destroyed were soon rendered useless due to unsustainable practices implemented by militia who lacked the knowledge and skills to properly operate the industry<sup>12</sup>. Having lost the actual production of bananas as a source of revenue, warlords instead focused their efforts on gaining control of major export points for the industry, which included the ports in Mogadishu as well as the city of Merca, located in Lower Shabelle<sup>13</sup>. Here, they were able to exploit multinational corporations that remained in production such as Dole and De Nadai; charging them taxes for their product exports.

## ***Khat***

Khat, a plant that induces a euphoric state when consumed via chewing, is another natural resource that has been involved in the sustained violent conflict in Somalia. Leaders of various factions import khat from Kenya by way of airstrips that they control in their respective territories or via aviation companies in which they own a substantial portion. The sale of khat not only serves to finance the purchase of arms for rebel groups, it also provides a means of transporting these arms throughout the country, as warlords utilize the same cargo planes that ship khat to move arms. Moreover, rebel leaders use khat as a method of payment for the militia that they command. They ensure troop loyalty by distributing the plant as both an addition and a substitute for salary. As khat's addictive properties often lead to habitual, lifelong usage, this allocation serves not only as a means of compensation, but also to expand the khat market and garner enduring demand<sup>14</sup>.

## ***Fisheries***

The fishing industry in Somalia generates immense monetary benefits, due in large part to the fact that Somalia has largest coastline on the continent. Reported tuna catch off the coast of Somalia has accounted for 5 to 10 percent of the catch for the entire Indian Ocean in the past decade. These numbers are a result of reported catch only and do not account for illegally harvested and unreported catch which would make this percentage significantly higher. This catch translates into millions, or billions if unreported and illegal catch are included, of dollars generated each month during tuna season which spans the months of August through November. This money, according to the United Nations Expert Panel on Somalia, has been allocated

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<sup>12</sup> Webersik, Christian. "Fighting for the Plenty: The Banana Trade in Southern Somalia." *Oxford Developmental Studies*, Vol. 33, No.1. March 2005

<sup>13</sup> *Id*

<sup>14</sup> Gross-Kettler, Sabrina. "External actors in a stateless Somalia-A war economy and its promoters." Paper 39; 2004; Bonn International Center for Conversion.



toward the personal enrichment of various faction leaders as well as the payment and re-supply of their private militias. It is not only the actual fishing catch that had aided in financing these faction leaders, it is also their control over the fishing vessel permitting process. Any vessel seeking entrance into Somali waters must first obtain a fishing permit, many of which are issued directly by local warlords who completely circumvent the government and keep the profits, which can be substantial as it may cost as much as \$150,000 to permit one boat for a year. Moreover, rebel groups obtain further funds via piracy and ransom of fishing vessels on the water<sup>15</sup>.

## **II. Côte d'Ivoire**

The “Ivorian Civil War” began in September of 2002, fueled by rebel troops’ demand for equal voting rights and fair political representation. The uprising split Côte d’Ivoire into two zones; a northern region controlled by a rebel group known as the Forces Nouvelles (FN), and a southern region in which the government maintained control<sup>16</sup>. The cocoa trade was a major component in the continuation of this conflict and presents a unique case in that it financed efforts on behalf of both the government and the rebel groups.

### *Cocoa*

Côte d’Ivoire produced 40% of the world’s cocoa in 2005-2006, making it the principle economic resource for the country and accounting for approximately 35% of all exports. This makes this case study unique in that this livelihood resource is one of the chief exports for the country, thus solidifying and strengthening its viability as a means of livelihood for a large sector of the population. Roughly 3 to 4 million people, out of a total population of 16 million, are employed by the cocoa sector. Approximately 10% of all cocoa is grown in the northern region, while the remaining cocoa is grown in the government controlled southern region.

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<sup>15</sup> Crawford, Alec and Oli Brown. “Growing Unrest-The links between farmed and fished resources and the risk of conflict.” International Institute for Sustainable Development, 2008.

<sup>16</sup> BBC News: Country Profile-Ivory Coast. Available at:  
[http://news.bbc.co.uk/2/hi/africa/country\\_profiles/1043014.stm](http://news.bbc.co.uk/2/hi/africa/country_profiles/1043014.stm).



Figure 2: Map of cocoa sector in Côte d'Ivoire<sup>17</sup>

The Ivorian government's use of the cocoa trade to fund the conflict took on several forms. These included direct payments from the cocoa sector, namely from three major cocoa institutions which include the Bourse du Café et Cacao (BCC), the Fonds de Développement et de Promotion des Activités des Producteurs de Café et de Cacao (FDPCC), and the Autorité de Régulation du Café et du Cacao (ARCC). It is useful here to note the significance of the state being able to access these revenues, thus making this case different from similarly funded resource conflicts such as that in Somalia where there is the absence of the state. These contributions, which are estimated to have been in excess of approximately \$20.3 million, were funneled directly into the war effort and were supplemented by revenues from cocoa exports directly controlled by the government. In addition to these direct payments, these institutions contributed equipment, such as vehicles and military helicopters, to national security forces. Moreover, the Ivorian government diverted revenue from the cocoa industry via levies as well as direct re-appropriation of funds. The FN also obtained substantial revenue from the cocoa sector through various means including taxation. They imposed both an export tax on all cocoa leaving the country through the regions under their control as well as an "escort tax" that was charged in order to ensure the "protection" of the cocoa shipments travelling through FN zones. Furthermore, cocoa buyers were required to procure a purchase agreement if they chose to operate in the Northern zone and all transport trucks were forced to purchase and display a

<sup>17</sup> Global Witness. "Hot Chocolate: How Cocoa Fueled the Conflict in Côte d'Ivoire." June 2007.

“laissez-passer” certificate for each trip into the FN zone. Both requirements were imposed by the rebel group directly who collected these fees, thus generating further income that was likely allocated toward arms purchases and other military spending. The FN also instated a blockade on cocoa travelling from the northern region into the government-controlled southern region in order to secure all taxes. Taxes in the FN controlled zone were lower than those charged by the government, and the FN placed no restrictions on cocoa coming into the northern region so long as the proper taxes were paid. As such, companies were more than willing to make these payments in order to trade in the FN zone, creating additional incentives for the FN to oppose reunification efforts<sup>18</sup>.

### **III. Rwanda**

The violent conflict in Rwanda was a culmination of decades of tension between the country’s two main ethnic groups, the Hutus and the Tutsis. The pinnacle of this tension came in the form of a mass genocide carried out by the Hutus against the Tutsis in April of 1994 during which approximately 1 million people were killed, and countless more were displaced<sup>19</sup>. Though natural resources did not play a significant role in the initiation or perpetuation of the conflict, the Rwandan genocide offers a unique case study in which natural resources, more specifically coffee, aid in facilitating a transition to peace after a brutally violent conflict.

#### *Coffee*

Coffee has played a prominent role in Rwanda’s economy for decades. In the 1930’s, the colonial government in Rwanda required that at least 25% of Rwandan farmers’ land be planted with coffee trees. The Belgians taxed both the local farmers individually and the coffee as an export; the revenues of which were collected by Tutsi chiefs and utilized to support the colonial government, thus beginning the long history of government involvement in, and oversight of, the coffee industry. Even after attaining independence in July of 1962<sup>20</sup>, the new government headed by General Juvenal Habyarimana reinforced the requirement that all farmers cultivate coffee and also forbade them to interplant with any other crops. An agency of the government purchased all coffee and a monopsony exporter would proceed to sell it. These export control agencies sold the coffee at the current world market price, retained a large portion of the profits for themselves, and paid the producers a reduced amount. During the Habyarimana government, coffee accounted for approximately 60 to 80% of Rwanda’s export revenue. Today, the current government, which is controlled by the Tutsi group known as the Rwanda Patriotic Front (RPF), has liberalized the coffee industry in Rwanda, allowing producers to contract freely with any buyers they choose. In addition, producers are no longer required to cultivate coffee; hills are interspersed with numerous other crops. These, along with several other factors, have given rise to Rwanda’s emergence as a leader in the niche market for specialty coffee. Another important

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<sup>18</sup> Global Witness. “Hot Chocolate: How Cocoa Fueled the Conflict in Côte d’Ivoire.” June 2007.

<sup>19</sup> Survivors Fund: <http://www.survivors-fund.org.uk/resources/history/statistics.php>. The UN estimates the number killed as 800,000 while the Rwandan Government estimates the number to be 1,071,000

<sup>20</sup> US Department of State-Background Notes: Rwanda: <http://www.state.gov/r/pa/ei/bgn/2861.htm>

contributing factor is that the industry has received development assistance, both bilateral and multilateral, in order to fund improvements. NGOs have supplied much of the support necessary to establish coffee cooperatives and train members to improve coffee quality, processing techniques, and marketing. NGOs, along with private donors and the government have built over 40 washing stations around the country to increase production capabilities. Because the majority of Rwandan coffee farmers are smallholders, averaging approximately 175 trees each, economies of scale make it profitable for these smallholders to join forces and form cooperatives in order to share knowledge and expenses, and disperse risks. It is in these cooperatives that Hutus and Tutsis work side by side to achieve a common goal. They have incentives to work together in order to improve the quality of their product as they now retain the majority of the profits from the coffee sales. The specialty coffee industry also contributes to job creation and local poverty alleviation. In addition, the cooperatives are made up of approximately 20% of genocide widows and orphans. These cooperatives allow women to provide for their families in the absence of a male head of house and even send their children to school<sup>21</sup>.

#### **IV. Liberia**

The violent conflict in Liberia stems from a prolonged civil war that is broken into two segments; the first “first civil war” which took place from 1989-1997 and the “second civil war” which occurred from 1999-2003. This civil war was waged by the rebel group known as the National Patriotic Front of Liberia (NPFL). The NPFL, which was led by Charles Taylor, gained widespread support from the Liberian population due, in large part, to the repressive nature of the Liberian government, led by President Samuel Doe. After numerous failed accords, peace was finally brokered in 1997 and Taylor was elected president<sup>22</sup>. Conflict resumed in 1999 between anti-Taylor forces and the new government. Fighting continued until the various combinations of rebel groups were successful in exiling Taylor to Nigeria in 2003.<sup>23</sup> In the case of this particular conflict, natural resources played a role both during the violence and in the post-conflict phase. The Liberian example is an interesting one in that higher-value natural resources, namely timber and diamonds, aided in the prolonged state of the violence, while certain livelihood natural resources, notably rubber, played a greater role after the peace was brokered.

##### ***Rubber Tapping***

Rubber amounted to approximately 13% of Liberia’s formal economy in 2005. During the initial outbreak of the civil war in 1989, many of the major rubber plantations were looted and taken over by various factions. The Firestone Company was able to continue production only through

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<sup>21</sup> Boudreaux, Karol. “State Power, Entrepreneurship, and Coffee: The Rwandan Experience.” Mercatus Policy Series, Policy Comment No. 15.

<sup>22</sup> GlobalSecurity.org, Liberia-First Civil War. <http://www.globalsecurity.org/military/world/war/liberia-1989.htm>

<sup>23</sup> Université de Genève Rule of Law in Armed Conflicts Project-Liberia. Available at: [http://www.adh-geneva.ch/RULAC/state.php?id\\_state=127](http://www.adh-geneva.ch/RULAC/state.php?id_state=127)

payments made directly to NPFL for “protection” that amounted to approximately \$2 million. The Liberian Peace Council (LPC), another faction, took over another major production facility, the Liberian Agricultural Company (LAC), and allowed its fighters to reap the profits in order to ensure loyalty. Both rubber companies were also charged with providing logistical support and military aid to rebel factions. A ban on rubber exports was instated in 1995; but this did little more than cause the rubber industry to move underground and make it easier for rebel factions to gain control. Only tappers that could afford to pay the “protection” fees or had political connections were able to weather the ban. This shut out independent rubber tappers and allowed rebel factions to all but completely take over the industry. After the end of the civil war, rebel factions continued to occupy five of Liberia’s six largest rubber plantations. The factions justified their continued occupation through a strict interpretation of article VI, §6 of the Comprehensive Peace Agreement which states that “All combatants shall remain in the declared and recorded locations until they proceed to reintegration activities or training into the reconstructed Liberian armed forces or into civilian life” (2003). The Guthrie plantation was only recently repossessed in July of 2006, after ex-combatants had already tapped an estimated \$10 million worth of rubber. The National Transitional Government of Liberia (NTGL) was reluctant to address the illegal occupations of rubber plantations by rebel groups for several reasons, one of which being that several senior officials from NTGL were shown to be profiting financially from the continued operations of some of the illegally-occupied rubber plantations. In addition, politicians were concerned about the havoc the ex-militants would cause if their post-conflict occupation was taken away. Possible repercussions were thought to include violent protests, an increased sense of insecurity, and an increase in crime rates<sup>24</sup>.

## **V. Afghanistan**

Afghanistan is currently in the midst of an intense internal armed conflict between the Afghan Transitional Authority and Taliban insurgents. Moreover, the United States and Pakistan, through Operation Enduring Freedom, has become involved in the conflict via their search within Afghanistan for Osama Bin Laden following the September 11 attacks on the US. Furthermore, the United Nations Security Council authorized the creation of the International Security Assistance Force in December of 2001 with the explicit purpose of ensuring a secure and safe environment in the capital and its surrounding areas. The involvement of these international actors has resulted in a large increase in the presence of foreign troops in the country<sup>25</sup>. The cultivation of opium poppies and the subsequent production and export of heroine which is derived from this livelihood natural resource has served to fund and prolong this violent conflict.

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<sup>24</sup> Cheng, Christine. “The Emergence of Extralegal Groups After Civil War and Liberia’s Rubber Industry.” April 15, 2008.

<sup>25</sup> Université de Genève Rule of Law in Armed Conflicts Project-Afghanistan. Available at: [http://www.adh-geneva.ch/RULAC/current\\_conflict.php?id\\_state=1](http://www.adh-geneva.ch/RULAC/current_conflict.php?id_state=1)

## *Opium*

Opium poppies make up the raw material utilized to produce heroin. In Afghanistan, opium production increased dramatically in 2007 with a 34% rise in output when compared with 2006 data, dominating the international market by producing 93% of the total global supply. The overall export value of opium in Afghanistan reached approximately \$4 billion in 2007. While approximately 25% of these profits were returned to the opium farmers, the remaining 75% went to traffickers, district officials, insurgents, and warlords. Cultivation of opium poppies is concentrated almost solely in the southern region of Afghanistan which coincides with the site of the Taliban insurgency. The total area allocated to opium poppy production in Afghanistan doubled from 2005 numbers to encompass approximately 193,000 ha. In contrast, the northern and central areas of Afghanistan, in which there is a sharp increase in government presence, have experienced declines in opium cultivation, with the number of opium-free provinces more than doubling. In 2007, 660 tons of heroin were either processed and exported or stored for eventual export in Afghanistan. Due to the risks inherent in drug smuggling, opium gains value at each border that it crosses, causing the asking price to increase up to 100 fold by the time the heroin reaches Western Europe. Central Asia is a major conduit for the trafficking of Afghan heroin into Europe, allowing for almost 20% of the total volume of heroin produced to be transported through its borders<sup>26</sup>.

## **VI. Pakistan**

In addition to the military operations that are currently being carried out against armed groups located along the border areas of Afghanistan, Pakistan has also experienced numerous internal conflicts. These internal conflicts can be partitioned into three main categories; conflict between Sunni and Shi'a Muslims, conflict between the Pakistan military and armed groups demanding autonomy in the Baluchistan province, and conflict along the Afghan border between Islamic militants supporting the Taliban and the Pakistan military<sup>27</sup>. The Taliban's control of valuable marble quarries has allowed them not only to obtain funds to prolong the conflict, but has also served to undermine the official government in Pakistan and legitimize their occupation of the area.

### *Marble*

The Ziarat quarry in Pakistan is home to one of the finest quality marble supplies outside of the Italian Carrara marble. As such, the marble from Ziarat is one of the most valued minerals in all the tribal areas and has been an extremely contested site for the past several years. Most notably, the dispute has occurred between the Gurbaz and Masaud sub-tribes over the allocation of mining rights and the local government body in charge of mediating this dispute, the FATA

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<sup>26</sup> United Nations Office on Drugs and Crime. "Annual Report 2008 (Covering Activities in 2007) on Afghanistan." 2008

<sup>27</sup> Université de Genève Rule of Law in Armed Conflicts Project-Pakistan. Available at: [http://www.adh-geneva.ch/RULAC/current\\_conflict.php?id\\_state=166](http://www.adh-geneva.ch/RULAC/current_conflict.php?id_state=166).

(Federally Administered Tribal Authority) Development Authority, has been unable to resolve it. The relative weakness of local government authorities and the reputation for strict brutality ascribed to the Taliban present in the country has allowed the Taliban to push its way into the business by quickly settling the dispute. They declared that one of the two mountains in the Ziarat area would be allocated to the Masaud division of the overarching Safi tribe while the other mountain would be given to the Gurbaz sub-tribe.



Figure 3: Map Ziarat quarry and surrounding area<sup>1</sup>

The Taliban then divided the Masaud's mountain into 30 sub-sections and divided these sections among the six villages in the area. Subsequently, the Taliban imposed a \$1,500 commission for each portion, making a rapid \$45,000 in profits. The Taliban have also imposed a tax on each truckload of marble leaving the quarry of approximately \$7 per load. This results in the collection of roughly \$500 per day. The extraction of this income aids in strengthening the Taliban and transforming them

into a "self-sustained" fighting force. This quarry alone, the latest attempt by the Taliban to seize Pakistani tribal lands rich in natural resources and strategically positioned for use as training bases and launching areas for sending fighters into Afghanistan, has brought in tens of thousands of dollars in profit for the Taliban<sup>28</sup>.

## VI. Colombia

There is no concise, simple explanation for the prolonged conflict that has plagued Colombia for decades. Rather, this sustained violence is the result of a combination of factors that include social inequality, severely limited government presence in large areas-usually located in the interior, the proliferation of illicit drug cultivation, and endemic violence. Livelihood resources have, to an extent, also contributed to and exacerbated the violence, most notably in the cases of coffee and bananas.

### *Coffee*

The "coffee crisis," a term used to describe a drastic global decrease in coffee prices following the collapse of the International Coffee Agreement in 1989, had a severe impact on the Colombian economy. Prior to this collapse, coffee prices were set at a minimum, per pound rate.

<sup>28</sup>Shah, Pir Zubair and Jane Perlez. "Pakistan Marble Helps Taliban Stay in Business." *New York Times*, July 14, 2008. Available at: <http://www.nytimes.com/2008/07/14/world/asia/14taliban.html?partner=rssnyt&emc=rss>

However, once the agreement buckled, coffee producers such as Brazil and Vietnam began overproducing and selling at minimal prices, effectively flooding the world market with coffee. The promulgation of the soft drink in the 1990's decreased global demand for coffee<sup>29</sup> and, simultaneously, actual growers of the bean began receiving a decreased proportion of the purchase price as third-party contractors began retaining a larger portion to account for the decrease in profits. This crisis effectively triggered a country-wide recession in Colombia, causing unemployment to reach approximately 20% and creating an idle group of unemployed workers ripe for recruitment by the numerous rebel groups present in the area. Moreover, farmers that had previously earned their livelihoods in the coffee industry were forced to turn to alternate sources in order to supplement their meager incomes. These alternate sources have recently taken the form of coca and/or opium poppy cultivation which, in turn, has continued to fuel the illicit drug trade in Colombia<sup>30</sup>. This illegal industry has financed not only the drug cartels which sat at its head, but also the various rebel groups that solicit fees and protections taxes from drug traffickers in exchange for permission to continue production on the coca and opium poppy farms<sup>31</sup>. These armed groups also profit directly from drug sales and fight amongst themselves for control of proceeds generated from the drug trade<sup>32</sup>. In summation, the coffee crisis caused a shift in production away from coffee trees and towards illegal drug cultivation by local coffee growers. This increase in production of illicit substances has, in turn, aided in financing the various rebel groups present in the country and, subsequently, facilitated the continuation of the violent conflict.

### ***Bananas***

Several multinational corporations specializing in banana production have worked out of Colombia; the most notable of which is Chiquita Brands International which carried out most of its operations through a subsidiary company, Banadex. Rebel groups, namely the Autodefensas Unidas de Colombia (AUC), the Revolutionary Armed Forces of Colombia (FARC), and the National Liberation Army (ELN), in an effort to finance their efforts and perpetuate the violence in the country, charged various banana plantations under Chiquita's control a "protection tax" which ensured the continued safe operations of these plantations in addition to the safety of the

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<sup>29</sup> In the year 1970, average consumers in the US drank approximately 36 gallons of coffee compared to 23 gallons of soft drinks. However, the situation was almost completely reversed by 2000, with the average consumer drinking 17 gallons of coffee compared to 53 gallons of soft drinks. Jeffrey, Paul. "Depressed Coffee Prices Yield Suffering in Poor Countries," *National Catholic Reporter*, February 7, 2003. Available at: <http://www.globalpolicy.org/globaliz/econ/2003/0207coff.htm>

<sup>30</sup> Paul Jeffrey. "Depressed Coffee Prices Yield Suffering in Poor Countries." Global Policy Forum, February 7, 2003.

<sup>31</sup> Meza, Ricardo Vargas. "The Revolutionary Armed Forces of Colombia (FARC) and the Illicit Drug Trade." Transnational Institute (TNI), The Netherlands, Acción Andina, Cochabamba, Bolivia, Washington Office on Latin America (WOLA), Washington, DC, June 1999. Available at: [http://www.tni.org/detail\\_page.phtml?page=archives\\_vargas\\_farc](http://www.tni.org/detail_page.phtml?page=archives_vargas_farc)

<sup>32</sup> Dube, Oeindrila and Vargas, Juan F. "Commodity Price Shocks and Civil Conflict: Evidence from Colombia." Discussion Paper Series, Royal Holloway-University of London. December 2007.



workers employed there. Recently, a law suit has been brought against Chiquita charging the corporation with complicity in hundreds of deaths via its financial contributions to these rebel groups. The multinational corporation admitted to making these payments and paid a settlement<sup>33</sup>. This indictment served to uncover further methods in which the banana industry has facilitated the violence in Colombia and authorities are now exploring allegations that Banadex-controlled docks served as trafficking locations for arms travelling between rebel groups. Moreover, the indictment revealed that the Colombian government's Convivir program, which is a network comprised of private security operatives placed under the control of the local military and charged with patrolling rural areas, had been channeling payments to various rebel groups<sup>34</sup>. Other US based banana corporations including Chiquita, Dole, and Del Monte have also been accused of funding rebel groups through payments of a "war tax" on banana exports, though no evidence to substantiate this claim has yet been presented<sup>35</sup>.

## **Crosscutting Themes**

Broadly speaking, the role of livelihood natural resources in violent conflict can be divided into two general categories; resources that cause or contribute to conflict and resources that promote post-conflict redevelopment. It is worth noting that these categories are not mutually exclusive and certain resources that may have facilitated or exacerbated violence can also serve to promote peace.

### **Natural Resources Causing or Contributing to Conflict**

This general category can be partitioned into several sub-themes which serve to more precisely address the manner in which specific livelihood resources interact with conflicts. The first of these themes is present in instances in which conflicts are tied to resource availability or conversely, resource scarcity.

#### ***Availability/Scarcity and Production of Livelihood Natural Resources***

Violent conflicts can be linked to the availability of these livelihood resources in several different ways. For example, there may be instances of conflicts over scarce resources. Limited stocks of resources, especially those such as livelihood resources that are vital for the survival of

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<sup>33</sup> Chiquita admitted to its former subsidiary, Banadex, making payments of \$1.7 million to the AUC from 1997 to 2004; though it has insisted that this was protection money for its employees and banana plantations. It has agreed to pay \$25 million in settlement. Evans, Michael. "Para-politics' Goes Bananas." *The Nation*. April 4, 2007. Available at: <http://www.thenation.com/doc/20070416/evans>. Massoud, Barin. "RIGHTS: Abuses in Colombia on Trial in US." Inter Press Service News Agency, July 9, 2007. Available at: <http://ipsnews.net/news.asp?idnews=38473>

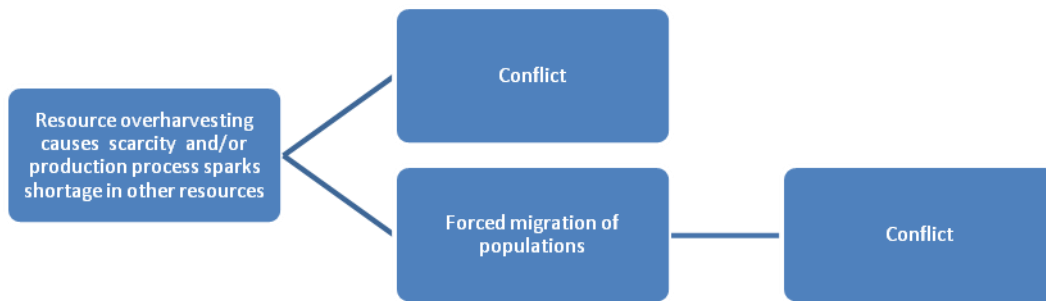
<sup>34</sup> Evans, Michael. "Para-politics' Goes Bananas." *The Nation*. April 4, 2007. Available at: <http://www.thenation.com/doc/20070416/evans>

<sup>35</sup> Balch, Oliver. "Doing business with paramilitaries." Ethical Corporation, July 6, 2007. Available at: <http://www.ethicalcorp.com/content.asp?ContentID=5229>

the populations that depend upon them, can cause conflict between groups who compete for access and/or rights to these resources. Moreover, a scarcity of livelihood resources can force those dependent on these resources to migrate elsewhere in search of either new stocks of the resource in question or an acceptable substitute. This mass movement creates the potential for conflict to occur between these migrating populations and the groups that already reside in the new locations. This situation will become even more evident when considering the rapidly expanding global population and the increased strain that will undoubtedly be placed on livelihood natural resources. Furthermore, the production of certain livelihood resources may deplete other natural resources, which in turn can lead to some of the aforementioned conflicts, namely direct conflict over access to the remaining scarce resources or conflict resulting from groups migrating in search of new resources and their subsequent infringement on already established populations. This theme is illustrated through the case of charcoal and its role in the Somali conflict. Charcoal, as previously stated, has an extremely resource intensive production process. Large expanses of forest land in Somalia, a vital resource to inhabitants, are being cleared of trees in order to manufacture this fuel source, which is produced by burning the wood in make-shift kilns which are constructed on the cleared land. This massive deforestation is adversely affecting the local populations which not only depend on the forests themselves, but also on resources within the forests, for their livelihoods. If deforestation continues at such an accelerated rate, there is likely to be conflict over the limited forest resources that will remain as well as the potential for conflict arising out of the unavoidable migration of affected populations into already inhabited areas, creating additional strain on the resources present in the new locations. A similar situation is occurring in Sudan where over 5 million inhabitants have been internally displaced. In the region of Darfur, the necessity of locating fuel wood in refugee camps has resulted in massive deforestation; a situation that is being further exacerbated by the process of brick making. The United Nations Environment Programme has estimated that it takes one large tree to generate the fire needed to manufacture approximately 3000 bricks. As such, the process of brick production is reducing available fuel wood and increasing deforestation rates, both of which are adding stress to an already tense environment<sup>36</sup>.

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<sup>36</sup> UNEP Press Release, "Environmental Degradation Triggering Tensions and Conflict in Sudan," June 2007



**Figure 4: Diagram depicting the availability/scarcity of livelihood natural resources due to overharvesting and/or production processes and the subsequent role this can play in violent conflict.**

### ***Control of Access, Transportation, and/or Trade of Livelihood Natural Resources***

Another sub-theme of this category is demonstrated through cases in which violent conflict is linked with the control of access, transportation and/or trade of a livelihood natural resource. This particular theme is derived from instances in which revenues generated by the resource in question are allocated toward the exacerbation of the conflict. Gaining and maintaining control of natural resources, especially livelihood resources, can be an extremely strategic and powerful position to occupy. Control, in this sense, applies to the ability to grant or limit access, transportation, and/or trade of a specific resource. Entities in control of the resource in question have the power to allow outside individuals or organizations to access and/or harvest the resource either for livelihood purposes or for sale. Moreover, they can bar all access and utilize the resource solely for their own benefit. Entities controlling the transportation and trade routes of certain resources also possess the power to prevent these resources from reaching both those that would utilize the resource for sustenance and those that would seek to profit from it through the sale of this resource on a market. Those individuals that are dependent on these livelihood resources to subsist are willing to go to great lengths, including monetary compensation as well as other means of assisting those in control of the resource, in order to obtain them. Moreover, when these livelihood resources also serve to garner a significant profit, other entities, namely industries, other rebel groups, governments, and multinational corporations, will also go to great lengths to gain access rights from those in control. In this sense, entities in control of resources that generate higher monetary returns hold a position of greater power. Furthermore, those that control transportation and trade to a more profitable market, be it regional, global, or otherwise, maintain a more powerful position. As such, there are many cases of violent conflict that are interconnected with the control of access, transportation, and trade of certain livelihood resources.

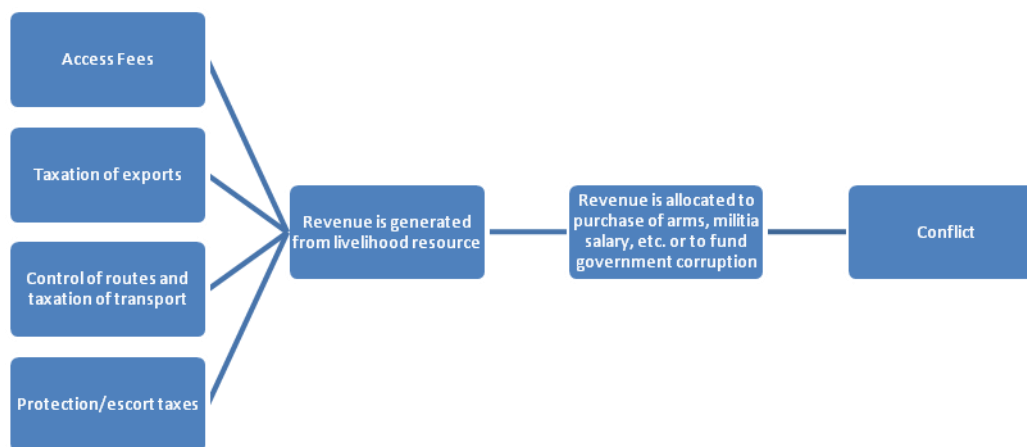
Control over access to livelihood resources can generate substantial profits, as is evident in the cases of marble in Pakistan, the fishing industry in Somalia, and the banana export in Colombia. In the Ziarat quarry in Pakistan, the Taliban exercises almost exclusive control over the valuable marble contained there. While initially a disputed territory, the Taliban intervened and allocated the contested mining rights between the two tribes involved and charged a commission for each partition it created. Moreover, they continue to impose a tax on each truckload of marble leaving the quarry, thereby managing not only to dictate the access rights of the local populations, but also any outside entities attempting to harness this valuable resource. In addition to generating profits via its control of all quarry access, the Taliban gained substantial political leverage amongst the local populations by taking the initiative that the Pakistani government would not and settling the longstanding dispute between the tribes concerning mining rights to the quarry. This served to undermine the government in the eyes of the local tribes, engendering a lack of faith in its ability and capacity to care for its people, while simultaneously legitimizing the Taliban as a competent authority capable of governing in a fair and efficient manner. In Somalia, insurgent control of access to the fishing waters off the country's coast has also served to generate substantial revenues that have then been allocated toward the exacerbation of violent conflict. More specifically, various warlords control access to Somali waters and require all boats to obtain permits in order to fish in their respective territories. In addition to garnering sizeable profits from the permitting fees, warlords also undermine what little government authority exists by circumventing the legally recognized permitting process and approving, or disapproving, access to this livelihood resource, effectively adopting a government-like status. It should be noted here that in both the cases of Pakistan and Somalia, there is an absence of the state having the ability to tax the livelihood resources in question and, as such, a lack of profits accruing to the government. In the case of the Chiquita Brands International Company in Colombia, the multinational corporation was forced to pay a "protection" tax to rebel groups merely to continue "safe" operations in the banana sectors of the country. These insurgents essentially controlled all outside access to this livelihood resource by threatening violent action against any entities operating in the sector without their express permission and proper payment. This demonstrates the ability of insurgents to control access to resources not only by physically occupying the territory in which they are produced, but also with the perceived threat of potential violence.

Another method of control which certain groups exercise over livelihood natural resources can be seen through the exertion of control over the transportation routes of certain resources. Numerous cases demonstrate the substantial profits that can be attained from the control of resource transportation routes. For example, the Forces Nouvelles (FN) rebel group in Côte d'Ivoire obtained considerable revenue from the cocoa sector by imposing an "escort tax" that they levied in order to ensure the "protection" of the cocoa shipments travelling through FN zones. Furthermore, all cocoa transport trucks were forced to display a "laissez-passer" certificate for each trip into the rebel-controlled territory which was issued by the FN, thereby generating additional profits. Warlords in Somalia also utilize their control of the routes used to transport charcoal throughout the country to generate income to prolong the conflict. They install roadblocks in the respective territories falling under their control and utilize these roadblocks to halt charcoal shipments and collect taxes. By exerting jurisdiction over transportation routes for livelihood resources, rebel groups effectively extend their influence while concurrently obtaining further income to continue to fuel both their efforts, and inherently,

the conflict in question. Without the ability to transport the resources, both local populations as well as any international corporations operating in the country in question would not be able to move said resources out of the area for sale on external markets. As such, local populations dependent on these exports for their livelihoods are willing to take the necessary measures to ensure that these products make it to markets. Moreover, the sizeable investment that must be undertaken by outside entities operating in foreign countries necessitates a sizeable financial return. This, in turn, compels these multinational firms to pay any transportation costs imposed by rebel groups in order to ensure that their products, in this case certain livelihood resources, make it safely to outside markets.

Control of the livelihood resource trade is yet another sector of the marketing process in which profits can be acquired and allocated to violent conflict. For example, warlords in Somalia maintain control of major export points for the banana industry, which include the ports in Mogadishu as well as the city of Merca, located in Lower Shabelle. Here, they exploit multinational corporations such as Dole and De Nadai by charging them taxes on their banana exports. As the majority of buyers and consumers reside outside the country, these companies have little choice other than to pay the taxes in order to bring their products to the international market. In Côte d'Ivoire, the FN also imposed an export tax, collecting a substantial fee on all cocoa leaving the country through the regions under their control. It is of interest to note the fact that, in cases such as these, rebel groups are commandeering what is normally considered to be one of the core capacities of the state, namely the power to tax profits from the export of livelihood resources located within their territories, to fuel violent conflict. Furthermore, all entities acting as cocoa buyers were required by the FN to procure a purchase agreement if they operated in the rebel-controlled zone. Thus, the insurgent group effectively controlled all cocoa exiting the country through exporting fees as well as regulating all purchases within the country by charging cocoa buyers to operate within its boundaries. Once again, rebel groups have been able to attain financial returns that are used to further fund their cause and fuel violent conflict by maintaining strict control of the trade of livelihood resources. In Colombia, there have been unconfirmed reports that US based banana corporations including Chiquita, Dole, and Del Monte have aided in the funding of rebel groups through payments of a "war tax" on banana exports. As is the case when transportation routes are restricted, all entities attempting to export these livelihood natural resources for trade and sale to external markets must comply with the taxes and fees imposed on said resources in order to obtain financial returns. Moreover, as seen in the cocoa trade in Côte d'Ivoire, those hoping to enter into the country and purchase these resources are also subject to fees; fees that they are willing to pay in order to procure the natural resources. Again in the case of multinational corporations operating within these conflict zones, payments such as these must be made in order to generate profits. More specifically, international organizations and companies that operate in these areas have sunk capital costs that have been allocated towards the harvesting and/or production of these resources. Often times these multinationals are only allowed these access rights via government permission and, as such, they are subject to government whims. This is demonstrated through what is known as the Obsolescing Bargaining Model, first promulgated by Vernon in 1971, which theorizes that the interactions and bargains between multinational corporations and governments in a host country initially favor the multinationals, however, as the corporations' fixed assets present in the host

country expand over time, bargaining powers shift in favor of the government<sup>37</sup>. However, in these cases of violent conflict in which rebel groups replace the government as the entity granting access to the resource, its transportation, and its subsequent trade, the organizations operating within the country are instead subject to the bargaining power of whatever rebel group maintains control of the area. Thus, the multinationals are forced to pay these insurgents whatever access fee, transport tax, or protection payment that is asked of them in order to generate profits.



**Figure 5: Diagram depicting the mechanisms for generating revenue from livelihood natural resources that is subsequently allocated towards funding violent conflict.**

Another facet of control over the trading process of livelihood resources that is linked with violent conflict is the actual, physical action of trading and the mechanisms that facilitate it. More specifically, the transporting of certain natural resources from one location to another for trading purposes also serves as a means for transporting arms utilized to prolong conflict. In the case of khat in Somalia, various warlords import the plant from Kenya by way of airstrips that they control in their respective territories or via aviation companies in which they own a substantial portion. This import process also provides a means of transporting arms throughout the country as warlords utilize the same cargo planes that ship khat to move arms. Additionally, there have been unsubstantiated claims that the Chiquita Brands International subsidiary

<sup>37</sup> Glossary of International Economics: <http://www-personal.umich.edu/~alandear/glossary/o.html>

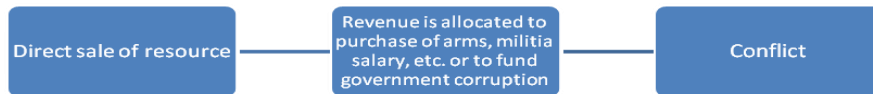
company, Banadex, controlled docks that, in addition to being utilized as banana export sites, served as trafficking locations for arms travelling between rebel groups in Colombia. These cases demonstrate the ways in which the physical transport of livelihood resources can also facilitate the transport of arms, both into a country and between rebel groups. This continuous supply of arms provides insurgents with necessary means to prolong violent conflict.



**Figure 6: Diagram depicting the role of the transport of livelihood natural resources in perpetuating violent conflict.**

### ***Marketing and Sale of Livelihood Natural Resources***

Another method in which both rebel groups and governments obtain profits from livelihood resources that can then be utilized to prolong violent conflict is through the actual sale of the resource, or some derivation of the resource, in question. The direct marketing and/or sale of these livelihood resources serves to generate substantial monetary returns, especially when compared with other mechanisms of obtaining revenue from these resources, in that the entire share of any revenue is retained by either the government or the rebel group in question. For example, sales of charcoal, bananas, khat, and fish in Somalia generate substantial financial returns for those warlords bringing the resources to market. This is also true of opium poppies in Afghanistan which, once refined and processed into heroine, garner huge sums on the world market, as evident from the fact that the overall export value of opium reached approximately \$4 billion in 2007. Of this ample amount, roughly 75% was allocated to drug traffickers, district officials, insurgents, and warlords, serving to exacerbate the conflict raging in the region. In Côte d'Ivoire, the government utilized the cocoa trade to fund the conflict via revenues from cocoa exports that is controlled directly. Moreover, the Ivorian government diverted revenue from the cocoa industry via levies on cocoa exports as well as direct re-appropriation of funds. Furthermore, the major cocoa institutions operating in the country made direct payments to the government for the war effort in addition to contributing equipment such as vehicles and military helicopters to national security forces. Though this is not a specific instance of the direct sale of a resource prolonging violent conflict, it is useful to note as it illustrates a situation in which the government also is complicit in the extortion of livelihood natural resources for the perpetuation of violence.



**Figure 7: Diagram depicting the contribution of direct sales of livelihood natural resources in perpetuating violent conflict.**

### ***Market Forces, Price Volatility and Livelihood Natural Resources***

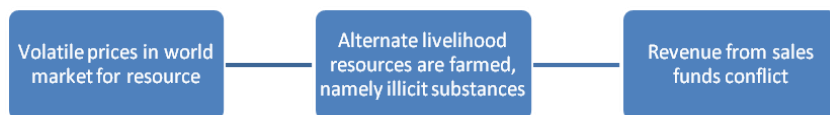
A further sub-theme associated with cases in which livelihood resources cause or contribute to conflict is their interaction with market forces and, subsequently, their susceptibility to price volatility. More specifically, the fluctuation in market prices associated with certain livelihood resources can contribute to instability and conflict within their respective countries. This theme is best demonstrated through the case study involving coffee in Colombia. When the International Coffee Agreement collapsed in 1989, nations such as Brazil and Vietnam increased their production and flooded the international market with coffee, effectively causing global prices to plummet and creating what was known as the “coffee crisis.” This crisis had an extremely adverse effect on nations that were dependent upon revenue generated from coffee exports as a staple source of income. In Colombia’s case, coffee growers were forced to seek out alternate methods of income generation in order to supplement the rapidly decreasing profits emanating from the coffee sector. These decreasing profits were a result not only of the global decline in coffee prices, but also of an increase in the portion of export revenues retained by those who marketed the coffee. The coupling of these two reductions placed an extreme strain on the incomes of coffee farmers, compelling them to cultivate other crops in an effort to provide for themselves and their dependents. The most popular and profitable substitute for the coffee crop took the form of the illegal cultivation of the coca plant and, to a lesser extent, the opium poppy. As of 2001, approximately 1,000 of Colombia’s 560,000 coffee farms had shifted production either to include coca and/or opium poppies or had completely replaced their coffee crop with these illicit drugs<sup>38</sup>. This drug trade served to perpetuate the violent conflict in several ways. The drug cartel regime in Colombia was founded on principles of violence and extortion and there were all too frequent occurrences of murder, kidnapping, and bribing of political

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<sup>38</sup> Wilson, Scott. “Coca Invades Colombia’s Coffee Fields.” *The Washington Post*. October 30, 2001.



officials. When the violence from the country’s rebel groups began to escalate, drug traffickers were forced to pay fees to these groups in order to continue their illegal drug cultivation, production, and exportation. The communist-based insurgent groups, in turn, became dependent on these “protection taxes” as a revenue source. Moreover, they had become so involved in the illicit drug trade that when the cartels were eventually dissembled, these rebel groups were poised to take up the mantel and continue exporting the illicit substances, retaining the entire share of the profits and greatly increasing their financial assets. Moreover, due to this increase in profitability, rebel groups began violently competing for control over the drug trade, thereby increasing violent occurrences in the country. This case demonstrates the ways in which fluctuating global market prices of certain livelihood resources can directly impact war torn countries and exacerbate the violent conflicts in the process. Countries in the midst of conflict are particularly susceptible to inconsistencies in the world prices of resource exports that comprise a large portion of their economy. These price variations decrease the amount of money entering countries at a time when there is a fundamental need for extra funds in order to attain peace, provide for inhabitants living in harsh and extenuating circumstances, and rebuild infrastructure. Moreover, on a more local scale, fluctuations in international prices for resource exports force inhabitants dependent on this income stream to turn to alternate livelihoods. As seen in the Colombian case, illegal drug cultivation provides an extremely attractive option for farmers seeking to supplement failing incomes. These crops garner considerable profits and, especially in areas located on the peripheries of the country where there is diminished government presence, there is little opposition or regulation to prevent the production of these illicit substances. These illicit substances, in turn, serve to prolong the conflict in question by financing the rebel groups that control their cultivation, production, and exportation and increasing violent competition between rebel groups for this control.



**Figure 8:** Diagram depicting the effects of volatile prices in the world market for livelihood natural resources and the subsequent impact on violent conflict.

## **Natural Resources Promoting Post-Conflict Redevelopment**

In order to successfully transition to a peaceful, post-conflict society, the various roles played by natural resources in violent conflict must be acknowledged and properly addressed. As discussed in the previous section, there are numerous linkages between livelihood natural

resources and the exacerbation of conflict. These include, but are not limited to, conflicts linked to competition over scarce resources, exacerbation of conflicts via livelihood resources acting as a revenue source for arms purchases and militia salaries, and the transport and trade of livelihood resources facilitating the movement of arms. In order to transition to a peaceful, post-war society, these same resources that aided in prolonging violence must be taken into account during reconstruction and redevelopment efforts. In this sense, livelihood resources can also be linked with violent conflict in another manner, namely in the post-conflict stage. More specifically, livelihood resources can and have been utilized as a means of establishing and maintaining peace in post-conflict reconstruction and redevelopment periods.

One of the greatest challenges associated with maintaining peace in a post-conflict period is the reintegration of former militia into society. The brokerage of peace after violent conflict essentially forces scores of troops, both rebel and government controlled, into relative unemployment. This new societal group, namely former militia, is comprised of individuals, who, for a varying span of time depending on the conflict, have practiced violence as a profession. Without a robust skill set and without adequate opportunities for alternate prospects and new sources of employment, these former militia may return to violence as a means of survival. This is evident in the case of the Liberian conflict and the rebels' continued control over the rubber industry. During the conflict, rebel groups occupied and operated rubber plantations as a means, not only of sustaining the conflict, but also of sustaining themselves. Even after a peace was brokered, rebels remained in unlawful control of these production facilities because they had no alternate means of employment or sources of income. In order for the rubber industry to be revitalized and re-legitimized, these former rebels will need to be reintegrated into society in a manner that provides new opportunities for employment and revenue. It is worth noting again the unique role that natural resources played in the Liberian conflict, namely that higher-value natural resources, such as timber and diamonds, aided in the prolonged state of the violence, while rubber, a livelihood natural resource, played a greater role after the peace was brokered. This demonstrates the need for a versatile and adaptive strategy in addressing natural resources and their role in conflict, as certain resources will need to be better managed during the conflict phase in order to stem revenue sources that can prolong the violence while other resources will need to be considered in the post-conflict phase in order to prevent recidivism.

Another case in which livelihood natural resources have significantly contributed to post-conflict redevelopment is that of the specialty coffee industry that has arisen in the post-conflict period following the Rwandan genocide. Though coffee itself was not a significant contributing factor to the violent conflict, it has played a unique role in the post-conflict redevelopment of the country on both an economic and a social level. The liberalization of the coffee sector allowed Rwandan growers to directly contract with buyers and, as such, allowed them to retain a much larger portion of the profits generated from sales by eliminating the middlemen that historically kept a large share of the revenue. This liberalization has also allowed growers to diversify their plantations, interspersing their coffee trees with alternate crops and generating revenue from these new sources. In addition, this liberalization has also given rise to Rwanda's emergence as a leading provider of specialty coffee, thereby creating a niche market specifically for coffee grown and harvested in the country. The development of this niche market, coupled with the

growing demand for the specialty coffee it produces, has generated new opportunities for employment, thereby further acting to alleviate poverty in the post-conflict country. In addition to the economic redevelopment that has been engendered by the coffee industry in Rwanda, this livelihood resource has also served to build trust and repair and strengthen relationships between the country's two previously warring ethnic groups, the Hutus and the Tutsis. Due to the small size of the individual coffee farms, it is more effective for owners to band together in order to disperse risk, and diffuse costs and expertise. This has led to the formation of cooperatives in which both Hutus and Tutsis work side by side in order to ensure maximum efficiency. This has aided in reparation of relations between the two previously warring ethnic groups at a time when it is sorely needed in that it has acted as a mechanism for rebuilding trust between the two groups. This reformation of confidence is an essential component in preventing recidivism and one that, through these coffee cooperatives, is being addressed in the Rwandan case. Moreover, approximately 20% of these cooperatives are comprised of the widows and children orphaned by the genocide. The income generated from their employment on these plantations has allowed the women to provide for the families in the absence of a male head of house as well as enabled them to garner enough excess income to send their children to schools which previously would have likely been an unattainable feat. This specific instance demonstrates the ability of livelihood resources to directly and significantly impact the post-conflict redevelopment stage by generating substantial revenue that can be allocated toward reconstruction efforts. Moreover, this case is a testament to the fact that livelihood resources can also create new employment opportunities for reintegration of both former militia as well as those affected by the violent conflict; thereby aiding in the generation of legitimate occupations in a transformed society and ensuring sustainable livelihoods and a steady income stream so that individuals have the ability to provide for themselves and their dependents in a peaceful manner. The Rwandan coffee industry also illuminates the effect that livelihood resources can have on the social reconstruction of a war torn society, facilitating new relationships between previously warring parties and aiding in the moderation of tense and, some would argue, hateful relations that may have otherwise spurred a return to conflict.

## **Recommendations**

As discussed in previous sections, livelihood resources can contribute to violent conflict in a variety of manners. Conversely, there have also been cases that demonstrate the capacity of certain livelihood resources to facilitate the transition to peace in a post-conflict society. In order to adequately address the role of livelihood resources in conflict and make recommendations to be applied to future situations, it is necessary to analyze how these resources may have initiated and/or prolonged conflict and prevent a repetition of these roles. Moreover, cases in which livelihood resources have aided in post-conflict peacebuilding need to be acknowledged and lessons learned from them need to be applied to future redevelopment projects.

Establishment of independent oversight mechanisms for those involved in the production, transport, and/or sale a livelihood resource is essential in ensuring its legitimacy and in preventing any funds from being allocated toward violent ends. These oversight mechanisms can be implemented by the government, NGO's, civil society, etc. An excellent example of such a mechanism can be seen in the Kimberly Process which aims to “. . . stem the flow of conflict diamonds – rough diamonds used by rebel movements to finance wars against legitimate

governments.<sup>39</sup> This process implements extensive restrictions on its members in order to certify that diamonds are “conflict free.” Mechanisms such as these help to ensure that natural resources and the revenues they generate will not be utilized to prolong violent conflict. This type of mechanism would be most applicable to livelihood natural resources that are exported and sold on the international market and can be somewhat easily tracked, such as cocoa and bananas. Qualities such as these ensure that the origins and transport of the livelihood resource can be accounted for in order to guarantee that conflict is not facilitated in anyway.

Similarly, the promotion of greater accountability and transparency for companies, particularly multinational corporations, working in livelihood natural resource sectors would help to ensure that rebel factions are not garnering excessive profits that can be used to fund further conflict. This could take the form of required publication of annual reports and financial audits for companies dealing with livelihood natural resources and operating internationally in areas of violent conflict. This accountability should also be extended to all entities that purchase from these companies. The responsibility lies with consumers as well, to perform what Global Witness calls “extended due diligence” in order to ensure and publicly demonstrate that purchases from the region or multinational corporations in question are not inadvertently providing funding that is being allocated to the warring factions<sup>40</sup>. Moreover, there also must be a promotion of greater accountability and transparency for the governments involved in conflicts in which livelihood resources play a role. More specifically, government officials benefiting or facilitating the illegal transfer of funds and/or supplies related to the livelihood resources in question should be replaced and held accountable for their actions.

Another essential component in addressing the role of livelihood resources in violent conflict is the provision of alternate sources of livelihoods for impoverished populations where conflict is caused by competition for scarce or valuable resources. This is particularly true in the cases of charcoal in Somalia and bricks in Sudan. In the absence of alternate means of sustenance and/or income, populations have and will continue to turn to unsustainable practices such as those demonstrated in these cases. However, the provision of alternate means of sustaining livelihood and generating income, administered by the government, NGO’s, etc., can help to ensure that individuals will not turn to unsustainable means of obtaining these same necessities. Furthermore, there is a necessity for improving the management of natural resources whose use creates detrimental environmental impacts that may lead to conflict. For example, sustainable harvesting of trees in Somalia for use to manufacture charcoal may curb increases in deforestation while simultaneously allowing a continuation in charcoal production.

Moreover, there is a growing need to strengthen corporate citizenship practices in regions that are susceptible to a conversion from the cultivation of legitimate crops to drug cultivation in an attempt by farmers to earn higher wages. The creation of contracts with growers of certain resources, such as coffee in the case of Colombia, could guarantee the purchase of the resource at or above a specified price and guarantee the growers a larger percentage of the sales as opposed

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<sup>39</sup> <http://www.kimberleyprocess.com/>

<sup>40</sup> Global Witness. “Hot Chocolate: How Cocoa Fueled the Conflict in Côte d’Ivoire.” June 2007.

to the majority of the profits going to third parties such as marketing agencies. This, then, would hopefully ensure that farmers would be less likely to turn to illegal drug cultivation in order to earn a living wage and thus eliminate that particular source of revenue for the prolonging of violent conflict. This can be seen in instances and campaigns such as the Fair Trade practice which ensures the allotment of better wages to farmers and thus a reduction in the necessity for these same growers to turn to illegal drug cultivation.

Reintegration of former militia through sustainable natural resource management and the provision of alternate livelihoods is another vital factor in promoting post-conflict peace and redevelopment. As evident from the case of rubber tappers in Liberia, there are instances in which rebels become dependent on certain livelihood resources for income generating purposes during a conflict. Once peace is brokered, these insurgents must be provided with an alternate means of livelihood in order to ensure they will peacefully abdicate their control of the resources in their possession. Moreover, successful reintegration would ensure that they do not relapse into their violent tendencies in order to generate an income. For example, in the case of fishing in Somalia, employing the same warlords who garner profits from issuing illegal fishing licenses as policing entities for the enforcement of official fishing licensing laws as well as for the protection of fishing vessels would allow for successful reintegration of these combatants in a manner that is somewhat related to the means by which they currently obtain revenue.

Another component of successful post-conflict peacebuilding is cross-border collaboration, especially prior to establishment of internal country regulations. More specifically, regulations and sanctions implemented in one country can affect the rates of production of resources in another country. This is evident in the case of charcoal production in Somalia, which increased dramatically when the Gulf States placed internal restrictions on deforestation while simultaneously implementing external bans on cattle imports from Somalia. This served to restrict Somalia's other major export and revenue source, cattle, while concurrently increasing the demand and profitability of charcoal which, as discussed previously, has been linked to the country's violent conflict in numerous manners. Future peacebuilding efforts need to account for the international repercussions of domestic sanctions such as these, and plan accordingly so as to minimize recidivism. Where appropriate, sanctions can and should be placed on livelihood resources that fund or facilitate violent conflict.

In conclusion, it is evident that livelihood natural resources play a significant, perhaps more subtle, role in violent conflict. However, these same resources also possess tremendous potential to be harnessed as a means of effective peacebuilding. As such, there is a growing need to address these roles that livelihood natural resource play in peacebuilding efforts in order to strengthen the transition to peace in post-conflict societies, and thereby prevent a return to conflict.