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## Squeezing the balloon?

### *United States Air Interdiction and the Restructuring of the South American Drug Industry in the 1990s*

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**Abstract.** Drug policy scholars generally agree that coercive attempts by the United States to reduce drug supplies from abroad have negative side effects. This article confirms that US coercion has made a bad situation worse. However, it also argues against oversimplified statements about the creation of side effects. The empirical focus is on the Air Bridge Denial Program, a US-sponsored attempt from the late 1980s to 2001 to reduce aerial drug trafficking in South America. A causal mechanism is developed that helps to understand and explain how air interdiction contributed to the displacement of coca cultivation from Peru to Colombia, an increase in Peruvian and Bolivian cocaine production, and a diversification of trafficking routes and methods. The analysis also examines contingent conditions, empirical black boxes, and alternative explanations. A complex empirical picture means that the popular metaphor of a balloon whose air, when squeezed, simply moves elsewhere is misleading. Although US-sponsored air interdiction has contributed to displacement, other factors have played a role as well.

## Introduction<sup>1</sup>

Sometimes metaphors are nice and misleading. It has become a truism in drug policy research that the illicit cocaine and heroin industry resembles a balloon filled with air or water. If this “balloon” is squeezed by law enforcement, the air or water, i.e. the coca or opium poppy fields, cocaine and heroin production sites, and trafficking routes, simply shift elsewhere. Critics of US foreign drug policy use the balloon metaphor to illustrate their argument that coercive strategies against drugs merely lead to the displacement of the drug industry from one country or world region to another. This article argues that the balloon metaphor oversimplifies the highly complex process of displacement. However, complexity does not mean that displacement is immune to scholarly analysis. The article’s main aim is to provide a heuristic explanation of displacement. Empirically, it focuses on the Air Bridge Denial Program (ABDP), a US-sponsored air interdiction program implemented in South America from the late 1980s until 2001, which is often said to have

shifted the cocaine industry from Peru to Colombia and diversified drug smuggling routes and methods in South America.

The first part of the article briefly describes the drug policy literature. It shows that scholars have examined side effects of US drug policy in general, and the displacement of the drug industry in particular, but that shortcomings remain. Following this, a causal mechanism for understanding and explaining displacement is developed. In the subsequent empirical analysis, the article provides a chronological account of the ABDP as a first step for understanding and explaining the dynamics on the South American cocaine market in the 1990s. In a second step, the article examines the causal mechanism and its constituting elements. It is shown that the ABDP contributed to the displacement of coca cultivation from Peru to Colombia, an increase in Peruvian and Bolivian cocaine production, and a proliferation of trafficking routes. This is because law enforcement pressure was applied selectively, traffickers displayed an impressive ability to avoid interdiction, and South American security forces were relatively weak. Numerous contingent conditions contributed to displacement as well. These contingent conditions pose formidable problems for the development of a theory of displacement and should lead to the abandonment of the oversimplified balloon metaphor. Additional analytical problems arise because of empirical black boxes and alternative explanations for displacement. A last section sums up the findings, the most important of which is that although the ABDP was not the only reason for displacement, it was an important one.

### **Achievements of drug policy research**

The literature on drugs and drug policies has grown enormously over the recent years. Despite many disagreements, there are also many points where analyses converge. Scholars agree, for example, that the US has dominated international drug control. The US federal government has trained and equipped security forces around the world, has undertaken diplomatic, economic, and military initiatives against drugs, and has shaped the international drug control regime in the framework of the United Nations.<sup>2</sup> In their attempts to reduce US drug problems, US policymakers rely mainly on coercion against farmers growing illicit crops, traffickers, and the governments of drug-producing and transit countries. Non-coercive strategies such as alternative development have received a relatively small share of the estimated nearly \$45 billion spent by the US on international drug control activities between 1980 and 2004.<sup>3</sup>

Scholars also agree that drug problems have become worse over the last decades. Coca and poppy cultivation, cocaine and heroin production, and the

number of drug-producing and transit countries have soared. More people have begun to consume illicit drugs or have switched to harder drugs and to more dangerous consumption methods. The illicit drug industry has had disastrous consequences for individuals and states. The increase in drug demand and supply has been accompanied by violent conflict, corruption, environmental degradation, and the spread of HIV/AIDS.<sup>4</sup>

Most drug policy analysts argue that the simultaneous increase in drug problems and in US coercion is no coincidence. Rather, US drug policies are regarded as having made matters worse by creating negative side effects. Drug prohibition creates a thriving illicit market by increasing risks, and thus profits, for drug entrepreneurs.<sup>5</sup> On the 'micro' level, scholars argue that attempts to implement prohibition through coercive means have side effects. US pressure on one drug producing or transit country can affect geographical shifts of coca and poppy cultivation, cocaine and heroin production, and drug trafficking routes (this 'balloon effect' is discussed further below). US military aid can exacerbate human rights abuses by strengthening security forces and paramilitaries, and thus undermine the democratic control of armed forces.<sup>6</sup> US diplomatic pressure on other countries can fuel anti-US nationalist sentiments, for example in Mexico, where the annual certification process is seen as violating the national dignity.<sup>7</sup> Washington's demands that foreign governments reduce drug supplies can expose security forces and government officials to the debilitating influence of corruption and thus undermine state accountability and democratic stability in foreign countries.<sup>8</sup> US diplomatic pressure and financial incentives can lead to turf battles when US and foreign drug control agencies are created or reshuffled.<sup>9</sup> US demands on foreign governments to implement prohibition can make consumers switch from cannabis or opium to heroin, and from smoking to injection, and thus lead to the spread of HIV/AIDS.<sup>10</sup> Last, but not least, the aerial fumigation of coca and poppy fields threatens animal and plant life in pristine natural habitats.<sup>11</sup>

Many authors refer to these side effects in order to explain the ineffectiveness of US drug policy. Despite spending billions of dollars and despite sending US agents around the world and even invading other countries, as happened in Panama in 1989, domestic drug prices in the US are relatively low, purity is relatively high, and drugs are freely available.<sup>12</sup> Policy ineffectiveness partially results from the drug policy side effects mentioned above. The displacement of the drug industry means that successful instances of drug supply reduction are temporary. Violence, nationalism, corruption, and turf battles obstruct the work of US agents on the ground.

In addition to these policy side effects, numerous other factors contribute to the ineffectiveness of US foreign drug control efforts. These include the poverty of rural populations and the profitability of illicit crops; the sorry

state of security forces in many developing countries and the considerable means available to traffickers; weak anti-drug norms; the dependency of some countries on revenues from the drug trade and countervailing interests of the governments of these countries; the fact that most value is added to drugs in consuming regions and not at the source; and economic transition and liberalization facilitating illicit transactions.

Analyzing these factors is scientifically fascinating and politically important, since it shows why US drug policies fail to reach their objective of supply reduction. However, the focus on policy ineffectiveness comes at a cost. Instead of explaining side effects, most scholars refer to side effects in order to explain policy ineffectiveness. Hence, with the notable exceptions of human-rights abuses and a weaker democratic control of armed forces,<sup>13</sup> side effects are accorded low analytical priority, even though they are veritable research topics in their own right.

The aim of this article is to correct this analytical bias. A focus on US foreign policy and the displacement of the drug industry is warranted because displacement is a particularly problematic side effect. When the drug industry moves to a new location, violence, corruption, and other drug-related problems move along with it. Hence, understanding and explaining displacement sheds light on increasing drug problems in general. Instead of accepting a priori that displacement is a consequence of US foreign drug policies, this article sets out to examine whether this has been the case and how the underlying mechanism of displacement looks like. The next section discusses shortcomings of research on the displacement of the drug industry.

### **Shortcomings of research on the displacement of the drug industry**

Displacement is a popular theme not only in the literature on US foreign drug policy, but also in writings on US domestic drug policy. Michael Massing, for example, shows how greater police pressure on street-level dealers in Spanish Harlem, New York City, in the early 1990s shifted drug sales off one block and onto another.<sup>14</sup> This episode reveals the limits of the domestic law enforcement and legal-sanction model. Internationally, drug industry displacement reduces the effectiveness of this model as well. But whereas the causal link between drug policies and drug industry responses is relatively clear at the domestic level, causality is more difficult to establish when looking at the drug issue in connection with foreign policies. Internationally, there are more concurrent developments than domestically, and empirical complexity makes it tricky to distinguish causes from effects, or to determine the causal effect of a specific anti-drug program, which after all is only one stimulus

among many others. Moreover, there is sometimes a complete lack of reliable data.

Although these are formidable research problems, they should not lead researchers to eschew a systematic analysis of displacement. Unfortunately, the unwieldy nature of displacement, as well as specific research choices, lead to a paradoxical situation: Researchers frequently refer to displacement without actually studying it in depth. Some authors do not analyze displacement in sufficient empirical detail, since their aim is to explain not displacement, but policy ineffectiveness. Other authors examine only cases in which the US subordinated drug control to other foreign policy interests. Last, some authors try to anticipate future patterns of displacement. Due to the complexity of the drug economy, however, these forward-looking extrapolations remain overly vague. Before anticipating or even predicting the future, one has to understand and explain the past.

Regarding the first point, many authors analyze displacement as only one of many side effects, all of which explain policy ineffectiveness and underline the ‘collateral damage’ of coercion. Rensselaer Lee argues that US drug policies have increased the number of trafficking groups in Colombia, have made some traffickers switch from dealing in cocaine to dealing in heroin, and have led to the displacement of the drug industry across the country.<sup>15</sup> Hence, the analysis focuses not only on displacement. Similarly, Pablo Dreyfus examines drug production as one example of negative trans-border spillover processes.<sup>16</sup> He does not stop there, though, but also attempts to explain increases in migration and violence, as well as changing threat perceptions of policymakers. Ron Chepesiuk and Ted Carpenter mention empirical examples of displacement, but also examine human rights violations, corruption, nationalism, and other presumed negative side effects of US drug policies.<sup>17</sup>

In all of these works, side effects figure prominently, but the causation of displacement does not. Similarly, in an otherwise brilliant analysis of the impact of US-funded aerial crop eradication in Colombia, Betsy Marsh oversimplifies matters when she likens displacement to a balloon.

Studies have repeatedly shown that forced eradication programs stimulate farmers to move elsewhere and replant, induce growers to plant larger areas of illicit crops in anticipation of eradication, and cause illegal drug production to shift abroad in the classic balloon effect. [. . .] Just as attempting to flatten an inflated balloon will cause the air to spread out in all directions, successful eradication in one area temporarily lowers the supply, thereby raising the price for the illicit crop and stimulating production elsewhere. For example, when Mexico suppressed marijuana production it blossomed in Colombia. When Turkey suppressed opium production, it sprang up in

Mexico. [. . .] When Bolivia and Peru suppressed coca cultivation, production migrated north to Colombia.<sup>18</sup>

Using a simple price mechanism based on an equilibrium of demand and supply, according to which demand will always find its supply, is unsatisfactory. Rather, scholars must reveal, to use Jon Elster's words, the "cogs and wheels"<sup>19</sup> behind displacement and support their causal claims with more empirical data. Yet in so far as data on displacement is provided, the reader is often left with an array of explanatory factors and empirical examples. Paul Stares, for example, provides a big picture of drug problems and drug policies in which everything is interrelated.<sup>20</sup> However, anyone who is interested in displacement must know *how* things are interrelated.

To be sure, some works focus exclusively on the 'balloon effect'. Ralph Secombe shows that US-Pakistani law enforcement cooperation in the early 1990s contributed to shifting the heroin industry to Afghanistan.<sup>21</sup> Frank Mora examines the impact of US drug policies on Brazil and South America's Southern Cone.<sup>22</sup> However, these analyses are arguably too brief to provide a convincing explanation of displacement. Moreover, the authors do not develop hypotheses or models that could be applied to other cases and thus contribute to a theorization of displacement.

A further shortcoming of research on displacement must be mentioned here. Some authors who look at displacement focus on cases in which the US has subordinated drug control to other foreign policy interests. In one of the most renowned contributions to drug policy research, Alfred McCoy convincingly argues that US coincidental and deliberate support for groups benefiting from the drug trade, on the one hand, and US pressure on other groups, on the other hand, have helped to spread drug production and trafficking around the globe.<sup>23</sup> Other researchers confirm that the globalization of drug problems cannot be explained without looking at the often-sinister role of the CIA and other US governmental players.<sup>24</sup> However, although the pragmatic handling of foreign policy priorities must be taken into account in explaining displacement, the CIA and other agencies have at times formed part of the coercive US drug control apparatus. Hence, one should not only look at periods in which the US pursued what could be called "anti-anti-drug" policies. Anti-drug policies merit equal attention.

A third shortcoming of the literature on displacement is that some authors prefer analyzing the future rather than the past. Shona Morrison examines economic, political, and social conditions conducive to the displacement of illicit drug production.<sup>25</sup> These conditions allow her to identify a range of countries that may produce drugs in the future. Although innovative, this anticipatory approach is over-deterministic. Displacement is complex and can

be a result of numerous combinations of events and background conditions. Therefore, extrapolating future trends by deducing the conditions conducive to displacement leads to overly general, and sometimes meaningless, results. Although one cannot exclude the possibility of Greece attracting drug production in the future, analysts should rather show how Colombia *has* done so in the past. The same criticism can be leveled against another work dealing with the future.<sup>26</sup> Attempting to identify countries' vulnerability to attract the illicit drug industry, the authors identify conditions that give rise to this form of illicit activity. Since the set of conditions that make countries vulnerable comprises 24 variables, the number of causal pathways along which displacement can occur is immense. Again, complexity means that we are doomed to know little about the future.

This section has sketched out shortcomings of research on the displacement of the illicit drug industry. The next section proposes a causal mechanism for understanding and explaining displacement.

### **A causal mechanism for understanding and explaining displacement**

Theorizing with causal mechanisms has become increasingly popular over the recent years for two reasons. First, mechanism-based research often provides more fine-grained explanations than positivist approaches that try to formulate social laws by observing regularities between presumed causes and effects.<sup>27</sup> Barometers do respond to climatic changes, and many heavy smokers do die of cancer, but it is not enough to say that the weather causes the barometer to change and that smoking causes premature death. Rather, researchers have to explain what happens inside the barometer or the human body. Theorizing with causal mechanisms means providing a convincing account of links between assumed effects and causes, i.e., to reveal the "cogs and wheels" driving changes such as drug industry displacement. Although there are regularities between US policy and the displacement of the drug industry, a detailed analysis of the environment intervening between specific anti-drug initiatives and displacement is needed in order to comprehend the causal role of these initiatives. Mechanism-based theorizing explains a phenomenon by showing that, in the absence of specific underlying forces that together constitute a causal mechanism, a phenomenon would not have occurred, or would have occurred along different spatial or temporal lines.<sup>28</sup>

The second reason for the increasing popularity of causal mechanisms is closely related to the first: mechanisms can be formulated and 'tested' in a way that leaves room for empirical complexity, and they do not reduce humans to variables – in contrast to standard positivist approaches. Many social

phenomena – including drug industry displacement – can result from dynamic and sometimes enigmatic causal chains, interaction effects, catalysts, contingent conditions, different causal paths that lead to the same outcome (equifinality), or a simultaneous presence of different causal forces.<sup>29</sup> Moreover, human beings matter, and human action is full of surprises. Peter Hedström and Richard Swedberg deserve credit for underlining what is often forgotten in positivist social science research: “[I]t is actors and not variables who do the acting.”<sup>30</sup> Although there are regularities in human action (drug traffickers normally try to avoid being caught), behavior hinges on too many personal and environmental factors to formulate a predictive, social law (evasion strategies of members of a trafficking network depend, for example, on the structure of the network). Furthermore, variable-based theorizing implies that an assumed cause X and an assumed effect Y are independent from one another and that X precedes Y in time.<sup>31</sup> But this positivist notion of causality is a straightjacket for researchers analyzing phenomena such as drug industry displacement that are characterized by non-linear complexity. Positivist “‘manipulability’ thinking”<sup>32</sup> is inappropriate when multiple factors blend into one another.

This article espouses a notion of causal mechanisms, causality, and explanation that leaves room for interpretation. It is not so much concerned with variables, but rather looks at background conditions and rules. The ability of drug entrepreneurs to adapt to law enforcement pressure, for example, is not so much a variable, but rather a background condition activated whenever states apply pressure on traffickers. Analyzing displacement means understanding these and other rules of the illicit drug industry. Moreover, interaction effects must be taken into account. Law enforcement operations can alter the structure of the illicit drug industry, but industry changes also influence law enforcement operations. Effects can thus become causes.<sup>33</sup> Instead of asking a narrow ‘why-question’ focusing on the ‘independent variables’ driving drug industry displacement, this article asks a ‘how-possible-question’.<sup>34</sup> Which factors, conditions, and processes allow displacement to occur? Answers to such ‘how-possible-questions’ are explanatory as well – positivism does not hold a monopoly on explanation.

The causal mechanism that helps to understand and explain displacement is composed of several elements that are deduced from the literature on US foreign policy in general and US foreign drug policy in particular. It reads as follows: *US anti-drug initiatives contribute to the displacement of the illicit coca/cocaine industry because the US applies pressure selectively, because the drug industry is decentralized and thus able to respond flexibly to law enforcement pressure, and because drug producing and transit states have weak law enforcement capacities. In addition, contingent conditions are likely to influence the outcome of US anti-drug initiatives.*



A particular foreign policy strategy or decision is the vantage point for analyzing its consequences. In order to be able to speak of displacement as a side effect of US foreign drug policy, one must show that the US has caused, or at least significantly contributed, to displacement. Second, one must assess whether a foreign policy is implemented comprehensively or selectively. The penchant of US policymakers to accord drug control a lower priority than other foreign policy interests, or to apply pressure locally, is well-known and has often contributed to displacement.

The third element of the causal mechanism pertains to the structure of the drug industry. Numerous actors are simultaneously engaged in coca and poppy cultivation, cocaine and heroin production, and drug trafficking. Many countries offer conditions suitable for drug productions and trafficking. Moreover, the number of smuggling routes is limitless, and many actors compete for market shares. Since the drug industry lacks a center of gravity,<sup>35</sup> elements falling prey to law enforcement can easily be replaced. But even taking out individual elements is often challenging due to the network structure of trafficking groups that operate much more flexibly than governments do.<sup>36</sup>

The fourth element of the causal mechanism, weak law enforcement capacities in drug producing and transit states, is a generic category that manifests itself in several ways, including a weak governmental control over the national territory; the tendency of many drug producing and transit states to subordinate drug control to other interests such as the fight against insurgents; corruption; insufficient financial, logistical, and personnel resources; and a lack of cooperation among state agencies. All these factors have in the past undermined the effectiveness of US foreign drug policy and provide a fertile ground for displacement.

In addition to these factors, understanding and explaining displacement means to look at unforeseeable, idiosyncratic, contingent conditions. One could argue that including these factors in a causal mechanism makes it impossible to assess the plausibility of a mechanism since any event or process found in the course of empirical research can be considered contingent and would thus be part of the initial explanatory framework. However, not leaving analytical space for contingent conditions means underestimating the multi-causal, unforeseeable nature of displacement. There is always some event or process, which may or may not be related to US foreign drug policy, that exerts some causal influence on displacement.

One could also raise the objection that the causal mechanism proposed here lacks linearity. Ideally, a causal mechanism posits different explanatory factors influencing an eventual outcome in a chronological fashion. Displacement is more complex, however. Numerous background conditions, idiosyncrasies, and explanatory factors may operate simultaneously or in a random order.

They can also interact with one another and reinforce each other. This means that although displacement can be studied as a chronological sequence of events, the underlying causality of displacement cannot be studied in this manner.

This article first analyzes a sequence of events by looking at the empirical chronology of displacement. Examining whether a US anti-drug initiative coincided with displacement provides a first clue towards understanding and explaining displacement. If, for example, displacement had already begun before the implementation of a foreign policy initiative, the initiative is unlikely to have singularly caused displacement, but probably only *contributed* to a process that was already underway. As a second step, this article examines each element of the initial causal mechanism in a non-chronological fashion. Hence, this article adopts a two-step approach for understanding and explaining displacement; the first step is chronological and the second analytical.

For both of these steps, the methodology of process tracing is used. Process tracing helps to identify “the intervening causal process – the causal chain or causal mechanism” between assumed causes and effects.<sup>37</sup> While mechanism-based theorizing offers a promising ontological framework for studying side effects of foreign drug policies, process tracing is a suitable methodology. Standard positivist methods often falter when data is missing or unreliable, as is the case with side effects of foreign policy. Process tracing, in contrast, allows the researcher to infer from multiple weak pieces of evidence. It transforms scholars into detectives who pursue “several suspects and clues, constructing possible chronologies and causal paths backward from the crime scene and forward from the last known whereabouts of the suspects.”<sup>38</sup> To be sure, the clandestine nature of drug trafficking and the secrecy of many anti-drug operations mean that not all black boxes can be illuminated and alternative explanations ruled out. But mentioning and analyzing these black boxes and alternative explanations adds value to drug policy research, since the assertion that US foreign drug policy leads to side effects is often made too easily.

This article focuses on the Air Bridge Denial Program (ABDP), a US attempt to reduce drug supplies in South American source countries in the 1990s.<sup>39</sup> In the first part, the empirical analysis traces the chronology of the ABDP and the restructuring of the South American drug industry. The second part examines each element of the initial causal mechanism, as well as black boxes and alternative explanations. The conclusion discusses the theoretical and practical implications of the findings.

The article draws on official publications, press reports, secondary literature, fieldwork in South America, and publications of activist-research institutions such as the Transnational Institute and the Washington Office on Latin

America that have established themselves as reliable sources of information. Generally, the clandestine nature of drug trafficking, state secrecy provisions, and vested interests of information providers restrict the validity and quality of information. It is therefore pivotal to compare data from various sources and examine the reliability of information sources wherever necessary.

### **The Air Bridge Denial Program**

Numerous authors have studied the domestic conditions in the US that give rise to coercive attempts to reduce drug supplies from abroad. These include resentment and prejudices<sup>40</sup> as well as the opportunistic behavior of bureaucracies and politicians who, similar to World War I generals, demand ever more troops to attack the enemy even though it is clear that the attack strategy is futile.<sup>41</sup> In their attempts to justify coercive drug policies, policymakers argue that illicit drugs impose significant human and economic costs on the US. In addition, many US policymakers argue that leftist insurgents and groups labeled terrorists finance their operations through drugs. These groups can endanger the lives of US citizens based in drug producing and transit states and can also threaten perceived US economic interests, for example when they bomb oil pipelines or force US companies to take expensive security precautions.

For all these reasons, the US federal government has been leading a “hundred years’ war” on drugs.<sup>42</sup> From the 1980s this war has been waged mainly in South America. Whereas previously, heroin and cannabis had been the main drugs of concern, from the mid-1980s the drug that caused the most concern in the US was cocaine, and particularly crack cocaine. Cocaine came exclusively from Latin America, which explains the US focus on the region. Moreover, the fact that most US policymakers constructed drug supplies as a national security threat helps to explain the official thrust on coercion.<sup>43</sup> In Latin America, and most prominently in Colombia, drug traffickers had established a thriving industry that fed the US demand for cocaine.<sup>44</sup>

In the 1980s and early 1990s, the structure of the South American drug industry was quite simple. Colombian traffickers came to Peru and Bolivia, where most of the world’s coca grew. There, they bought cocaine base paste (pasta básica de cocaína) from middlemen or coca farmers.<sup>45</sup> Subsequently, the traffickers transported the coca paste back to Colombia, where they transformed it into cocaine bound for the US and Europe (although some cocaine was processed in Peru and Bolivia). The most common means of transport used by traffickers between Peru, Bolivia, and Colombia were small aircraft. Already in the 1970s, the flamboyant Colombian drug trafficker Carlos Lehder,

who was eventually extradited to the US, had made extensive use of aerial drug smuggling. In the words of former US chief prosecutor Robert Merkle, “Lehder was to cocaine trafficking what Henry Ford was to automobiles.”<sup>46</sup> In the 1980s, other traffickers followed Lehder’s example.

One of the aims of the ABDP was to destroy this drug smuggling air bridge between the Bolivian and Peruvian coca fields and the Colombian cocaine laboratories. By interdicting planes, US planners hoped to cut off Peruvian and Bolivian coca farmers from their customers and, due to a resulting fall in coca prices, make the farmers give up illicit cultivation. In Colombia, traffickers would have fewer materials (coca and coca base paste) at their disposal for producing cocaine. As a consequence, less cocaine would be produced in Colombia and exported to the US. Decreasing cocaine supplies, so the logic went, would translate into higher US cocaine prices, lower purity, and diminishing drug availability. Eventually, domestic drug consumption would decline in the US.<sup>47</sup> As researchers of the RAND Corporation have convincingly shown, this logic is flawed, among other reasons because most value is added to drugs on US streets and not in source countries.<sup>48</sup> This means that traffickers can easily offset losses in source countries by paying more to coca farmers or by financing new coca fields.

Numerous actors in the US and South America were involved in the implementation of the ABDP, using various military hardware and intelligence systems.<sup>49</sup> US federal departments that contributed resources to air interdiction included the Department of Justice and the Department of Defense. The Central Intelligence Agency (CIA) and other intelligence agencies, such as the Defense Information Agency, the Office of Naval Intelligence, and the National Security Agency, were involved as well.<sup>50</sup> From 1992 onward, the air interdiction effort was directed by the Joint Air Operations Center (JAOC) of the Pentagon’s Southern Command (SouthCom). The JAOC was based at Howard Air Force Base in Panama and, from 1999, in Key West, Florida.<sup>51</sup> Monitoring the gigantic South American, Central American, and Caribbean airspace, the JAOC played a central role in the air interdiction effort. Since the US had to cooperate with Latin American states, the JAOC hosted Latin American liaison officers with whom US personnel conducted joint surveillance flights. Whenever US surveillance planes flew over the airspace of another country, a military officer from that country had to be on board.<sup>52</sup>

The US used an impressive array of technology and hardware for air interdiction, including C-130, P-3 Orion, and E-3 Sentry AWACS (Airborne Warning and Control System) surveillance aircrafts. These airplanes, as well as radar stations on the ground, provided the US command center and the security forces of Andean states with real-time intelligence. In addition, US F-16 fighter jets helped to identify aircraft. C-130 transport planes and C-27

Spartan refueling planes were deployed for air interdiction. Once the air forces of Andean states had received information on suspicious flights, they would force the planes to the ground. There, they would be searched for possible drug loads. If the pilots of the suspicious planes did not respond to warning signals, planes would be shot down.<sup>53</sup>

The Air Bridge Denial Program can be divided into two phases, the first of which lasted from the later 1980s to 1995 and the second from 1995 to 2001. In the following, these two phases are discussed chronologically. The analysis shows that the ABDP, particularly during its main phase, was accompanied by the displacement of coca cultivation from Peru to Colombia, an increase in Bolivian and Peruvian cocaine production, and a dispersion of drug trafficking routes.

### **The early phase of the Air Bridge Denial Program**

Initially, the US tried to interdict trafficking planes in a rather piece-meal fashion. In the framework of the 1986 Operation Blast Furnace, the Reagan administration sent around 160 US personnel, as well as six Black Hawk helicopters, to Bolivia to put pressure on traffickers who operated mainly in the Beni and Santa Cruz areas.<sup>54</sup> In the course of the five-month operation, US officials argued that air interdiction was necessary to cut the link between traffickers buying coca and coca paste and peasants supplying these materials.<sup>55</sup> In 1987, then-US Customs Commissioner William Van Raab suggested that the US Air Force should be permitted to shoot down suspicious smuggling aircraft that failed to respond to warning signals.<sup>56</sup> Although this proposal was presumably not heeded immediately, air interdiction efforts were stepped up. In the framework of Operation Snowcap, which began in spring 1987 and lasted well into the 1990s, the US tried to reduce cocaine supplies by training and equipping security forces from several South American countries and by supporting their operations against traffickers and coca farmers on the ground. The US government claimed that 26 trafficking aircraft had been seized during the first two years of Snowcap.<sup>57</sup>

Nevertheless, aerial drug smuggling continued. In the later 1980s in Peru, it was estimated that between two and five aircraft landed on clandestine Peruvian airstrips every day – sometimes only for ten minutes –, picked up between 800 and 2,500 pounds of coca paste, and flew back to Colombia. Besides the traffickers, most of which were from the ‘cartels’ of Medellín and Cali, the main beneficiaries of the air bridge were the Maoist rebel group Sendero Luminoso (Shining Path) and the Peruvian security forces. According to scholar and former military advisor Sewall Menzel, whose insightful

writings on the South American drug industry are partially based on personal observations, traffickers paid the Senderistas and the Peruvian security forces between \$3,000 and \$8,000 each for every drug load.<sup>58</sup>

From 1990, in the framework of the Andean Initiative, the US significantly increased drug control efforts in the Andes. In July 1990, it began to share intelligence on aerial drug trafficking with Colombia and Peru<sup>59</sup> and sponsored the installation of ground-based radar stations, which complemented the intelligence gathered by ground forces and reconnaissance planes. Radar stations were installed in various locations in Peru and Colombia,<sup>60</sup> and possibly also in Bolivia and Ecuador, although little is known about the installation of radar stations in these countries. The radar stations helped to spot suspicious flights and contributed to the implementation of several operations against drug traffickers in the early 1990s. The most important ones were Operations Snowcap, Safe Haven, Ghost Zone, and Support Justice.

Not much is known about the details of these operations and how they were related to each other,<sup>61</sup> not least because they were split up into different phases and shrouded in secrecy. What matters here is that these operations put some pressure on traffickers. In Bolivia, a raid on the town of Santa Ana de Yacuma, undertaken in June 1991 as part of Operation Safe Haven, reportedly led to the arrest of over 50 suspects, the destruction of 15 cocaine laboratories, and the seizure of 42 aircraft, which may have been half of all trafficking aircraft operating in Bolivia.<sup>62</sup>

In neighbouring Peru, security forces supported by US ground radar, AWACS, and P-3 aircraft intercepted suspicious planes and destroyed clandestine airstrips. Operation Support Justice III, which lasted from fall 1991 to spring 1992, led to the interception of an estimated 55 unscheduled aircraft, six of which may have been en route to Colombia with drugs on board.<sup>63</sup> In one of the many accidents accompanying the ABDP, the Peruvian air force shot down a civilian aircraft non involved in smuggling on 9 July 1991, killing 17 passengers.<sup>64</sup>

Sometimes, developments on the drug markets were positive from the US perspective. In late 1989 and early 1990, for example, coca prices decreased significantly.<sup>65</sup> Lower prices coincided with a brief slump in coca cultivation (at least in Bolivia) and a decline in aerial trafficking. In Peru, trafficking may have declined from five to six smuggling flights per day to six per week.<sup>66</sup> However, as shown further below, it is unlikely that these changes were a result of the Air Bridge Denial Program. Rather, domestic developments in Colombia can explain these developments. In any case, success was short-lived. By mid-1992, air smuggling was in full swing again. An estimated 20 planes per day flew drugs from Peru to Colombia.<sup>67</sup> Moreover, by late 1990, Bolivian coca prices and coca cultivation had recovered.

Between 1992 and 1995, US-sponsored interdiction in Bolivia, Peru, and Colombia was frustrating for the US officials involved, since operations were ineffective and hampered by numerous implementation problems. In Bolivia, US forces and their Bolivian counterparts tried to interdict trafficking flights to and from the Chaparé, as well as the delivery of precursor chemicals needed for drug production, during Operation Ghost Zone, which began in March 1992.<sup>68</sup> The operation formed part of the ‘kingpin’ strategy. By applying pressure on drug ‘kingpins’, the US hoped to do significant damage to the drug industry. Although Ghost Zone made life a little difficult for Colombian traffickers, they continued to fly to the Chaparé and supply Colombia with sufficient raw materials for cocaine production. The Colombians paid in cash and thus provided farmers with a vital source of income.<sup>69</sup>

In Peru, President Alberto Fujimori surprised the US with his ‘autogolpe’ on 5 April 1992, which gave him quasi-dictatorial powers and led to the imposition of US sanctions. To make matters worse, on 24 April 1992, the Peruvian air force fired at a US surveillance aircraft, killing one crewman and injuring several others. The plane, which had been flying in international air space, had been on its way to Panama after completing a mission over Peru’s main coca-growing area, the Upper Huallaga Valley (UHV). As a consequence of the incident, and to underline demands for a return to democracy, the US suspended aerial surveillance operations in Peru and the delivery of anti-drug aid to the country.<sup>70</sup> Meanwhile, Fujimori declared a state of emergency in the UHV and ordered the air force to reestablish control over clandestine airstrips. In September 1992, the US and Peru resumed aerial interdiction and laid out procedures for avoiding accidental shoot-downs. In January 1993, Operation Support Justice IV was begun, which used several ground and air radar stations in Peru.<sup>71</sup>

In Colombia, air interdiction was undertaken as well. During Operation Support Justice III and IV, the Colombian air force interdicted suspicious planes with the help of US surveillance aircraft and ground radar near the border with Peru. Although many planes may have been seized on the ground, aerial interdiction was severely hampered by the fact that Colombian security forces did not implement a policy that would have allowed them to shoot down suspicious planes.<sup>72</sup> But on 2 March 1994, Colombian President Gaviria said that security forces would begin to shoot down planes that had no flight plan and refused to land after receiving warning signals. As a consequence, on 1 May 1994, the Clinton administration announced a suspension of aerial intelligence sharing with Colombia since it feared an accidental shoot-down and liability claims against US personnel.<sup>73</sup> Many in the US Congress criticized the suspension of intelligence cooperation. One even spoke of the “the most significant retreat since George Washington retreated from New York during

our revolution.”<sup>74</sup> Critics of Clinton’s decision referred to indications showing that the suspension of intelligence sharing allowed Colombian traffickers to increase the number of flights, transport smaller amounts of drugs, fly at daytime, and remain on the ground for a longer period of time.<sup>75</sup> It was not before December 1994 that the Clinton administration announced that US officials would be exempted from liability claims in case of civilian deaths due to aerial interdiction, given certain conditions. This legal clarification was crucial for the resumption of large-scale aerial interdiction from 1995 onwards.<sup>76</sup>

As shown further below, attempts to assess the impact of the ABDP on the structure of the South American drug industry are hampered by empirical black boxes. However, there is little doubt that the program during its early phase did not improve US drug problems, which continued to be significant.<sup>77</sup> More importantly in the present context, the program’s early phase coincided with a restructuring of the South American drug industry. While coca cultivation decreased particularly in Peru (although a slight increase was registered in 1995), it began to increase in Colombia, as illustrated by the chart and the table in the annex. The hectare figures for Colombia read as follows: 37,100 (1992), 39,700 (1993), 44,700 (1994), and 50,900 (1995).<sup>78</sup> Increasing Colombian coca cultivation, which became much more dramatic during the main phase of the Air Bridge Denial Program, showed that Colombia was no longer only a country of cocaine production, but that traffickers increasingly procured coca in Colombia and thereby lowered transport costs and interdiction risks. The next section examines the main phase of the Air Bridge Denial Program.

### **The main phase of the air bridge denial program**

From 1995, the Clinton administration effectively granted immunity to US personnel involved in any accidents occurring in the course of aerial interdiction. From an international law perspective, the new legislation was highly dubious.<sup>79</sup> But Clinton was under pressure from the Republican-dominated Congress and thus felt forced to reinvigorate Andean drug control programs.<sup>80</sup> Besides, Fujimori’s election victory in 1995 made it easier for the US government to justify close anti-drug cooperation. This cooperation was largely based on an alliance between US government and CIA officials on the one hand, and Fujimori’s sinister advisor Vladimiro Montesinos, on the other hand. Montesinos’ shady business deals and human rights violations cast a large shadow over US-sponsored air interdiction.<sup>81</sup>

In 1995, US and Andean security forces again began to share information on aerial smuggling, and the US installed or made operative ground radar



stations in Peru, Colombia, and maybe elsewhere. In October 1995, Operation Green Clover was formally launched. Directed by SouthCom, the operation brought around 3,000 US military personnel together with South and Central American security forces. In Peru, staff of CIA-contracted companies flew in aircraft owned by the US military and passed information about suspicious flights on the Peruvian security forces. These companies were only part of a large spectrum of actors involved in the ABDP's implementation in the Western Hemisphere.<sup>82</sup>

In January 1996, source-country control policies received another boost when Clinton appointed retired four-star General Barry McCaffrey as director of the Office of National Drug Control Policy. While still head of SouthCom, McCaffrey had led Operation Green Clover. Under his guidance, the US now increased its anti-drug aid particularly to Peru, from \$15 million in 1995 to \$19 million (1996), \$26 million (1997), \$32 million (1998), \$75 million (1999), and finally \$80 million in the year 2000. In Colombia, the anti-drug effort was complicated by the decision of the Clinton administration to 'decertify' Colombia in 1996 and 1997 following allegations that the 1994 election campaign of President Ernesto Samper had been sponsored by traffickers from Cali. Nevertheless, the US continued to conduct anti-drug operations together with the Colombian security forces, particularly the Colombian National Police.

In April 1996, the Pentagon launched Operation Laser Strike. This successor program to Green Clover involved the security forces of the US and nine other countries (albeit in different stages) and the use of ground-based radar and various surveillance aircraft.<sup>83</sup> US officials argued that Laser Strike was more effective than Green Clover since it better integrated air interdiction with riverine and ground operations and involved a greater number of countries, including the traditionally recalcitrant Brazil.<sup>84</sup> In 1996, McCaffrey and others praised the air interdiction effort. ONDCP official William Bonzin, for example, said in Congress in September 1996:

The results of this multinational, cooperative effort have been stunning. The so-called "air bridge" between Peru and Colombia saw a greater than 50 percent reduction of flights as aircraft were intercepted and, in some cases, shot down. Approximately 50 narco-trafficking aircraft operating along the Peru/Colombia air bridge have been forced down and seized, or shot down. The cost of shipment has increased fivefold as pilots demand more money as their personal risk increased dramatically. Movement was reduced so drastically that there was a glut of coca base on the market and the price of the product being shipped [from Peru to Colombia] fell by 50 percent overall and by as much as 80 percent in some areas.<sup>85</sup>

These and other claims of success are dubious. First, and as shown below, there is no agreement as to how many trafficking flights were intercepted. Second, during the second half of the 1990s, US cocaine consumption was fairly stable, not least due to stable cocaine prices, purity, and availability.<sup>86</sup> Third, and most importantly, the structure of the South American coca/cocaine industry was changing in several ways.

The first notable change was a fluctuation of coca prices in Peru. Between January and September 1995, the price for a kilo of coca leaves in the UHV decreased from \$3 to \$0.4, and the price of a kilo of coca paste from \$850 to \$100.<sup>87</sup> In 1996, prices were still relatively low, but then they slowly recovered,<sup>88</sup> reaching high levels again toward the end of the decade.

Second, Peruvian coca cultivation declined further and Colombian cultivation increased dramatically (see the chart and the table in the annex). The figures for Peruvian coca cultivation (in hectares) read as follows: 115,300 (1995); 94,400 (1996); 68,800 (1997); 51,000 (1998); and 38,700 (1999). In 2000, 34,100 hectares of Peruvian land were used for coca cultivation, a significant decline compared to the levels of the early 1990s.<sup>89</sup> While this decline delighted US government officials,<sup>90</sup> Colombian coca cultivation increased, growing from 57,200 hectares in 1996 to 79,500 (1997), 101,800 (1998), 122,500 (1999), and 136,200 in the year 2000.

Rising Colombian cultivation almost perfectly compensated lower cultivation in other countries. Between 1992 and 2002, “the total area under illicit coca bush cultivation has been remarkably constant at around 200,000 hectares per year”, as researchers of the Transnational Institute point out.<sup>91</sup> This fact makes it tempting to compare the coca/cocaine industry to a balloon whose air shifts elsewhere as a consequence of air interdiction. After all, at least in this case, the quantity of air inside the balloon has been essentially the same. However, the balloon metaphor is less useful when considering the fact that external pressure was applied not only through air interdiction, and that displacement resulted not only from external pressure, but also from developments on drug markets that were not directly related to US foreign policy. These causal factors are discussed further below.

A third indicator of market changes is the vertical integration of the Peruvian and Bolivian drug trade. From the mid-1990s, these two traditional coca-cultivating countries, and particularly Bolivia, began to produce significant amounts of cocaine. In Peru, coca prices may have recovered from 1996 onwards since non-Colombian buyers filled the gap left by the Colombians. In 1995, the State Department noted that cocaine produced in Peru was sold without the involvement of Colombian traffickers,<sup>92</sup> and in early 1996, Peruvians reportedly began to sell coca products to Bolivians.<sup>93</sup> Partly as a

consequence of the latter development, cocaine made up 61 percent of coca products seized in Bolivia in 1995, whereas the year before, its share of the total had been only nine percent.<sup>94</sup>

The fourth element showing the restructuring of the Andean drug trade was the use of new smuggling routes and methods. Some traffickers continued using traditional flight routes despite the ABDP.<sup>95</sup> But many traffickers presumably avoided air trafficking and instead used rivers, the Pacific Ocean, large roads, including the Pan-American Highway, or even jungle paths.<sup>96</sup> Yet since land and riverine drug smuggling was time-consuming, costly, and risky due to higher chances of interdiction as well as banditry, it is likely that traffickers responded to the ABDP mainly by dispersing aerial smuggling routes. Some avoided flying over the Ecuadorian jungle and rerouted their flights to the coastal areas, while others avoided using the Ecuadorian airspace and flew over other countries instead.<sup>97</sup> One of these was Brazil, which saw more cocaine paste and cocaine imports from Peru and Bolivia. From Brazil, drugs either fed a rising domestic demand or were exported to the US and Europe. The US Drug Enforcement Administration (DEA) confirmed the dispersion process when it reported in 1996 that traffickers were responding to the ABDP by smuggling coca paste on land routes or rivers to aircraft at clandestine airstrips in the tri-border areas of Brazil, Peru, and Colombia.<sup>98</sup> Traffickers also used Venezuela and other countries for exporting drugs, laundering money, and buying precursor chemicals.

Towards the end of the decade, air interdiction underwent significant changes. With the Western Hemisphere Drug Elimination Act of October 1998, the US Congress once more increased funding for anti-drug programs in source countries. In May 1999, Howard Air Force Base in Panama had to be closed as the government of Panama assumed control over the Canal Zone. SouthCom facilities were transferred to Florida and Puerto Rico, and so-called Forward Operating Locations (FOLs) were established in Ecuador, Aruba, and Curaçao.<sup>99</sup> From these FOLs, the US operated several types of aircraft, as well as intelligence equipment such as radar facilities and large antennae. FOLs could cover huge geographical spaces and were considered cheaper than Howard Air Force Base. Counter-drug missions were probably only one type of activity undertaken with the help of FOLs. As a matter of fact, air interdiction became increasingly intertwined with anti-guerilla operations. Following the July 1999 crash of a US reconnaissance plane in Colombia, one US source said: "We're not supposed to be monitoring guerillas, but that's what they were doing."<sup>100</sup>

By 1997/1998, US planners believed that the Peruvian-Colombian drug smuggling air bridge had largely been destroyed. In May 1998, they therefore suspended AWACS and P-3 Orion surveillance flights over Peru and instead

used the equipment to survey aerial smuggling inside Colombia. As the US embassy in Lima objected to this move, the Clinton administration announced in August 1998 that P-3 flights would resume.<sup>101</sup> However, by that time the urgency that had marked air interdiction in the mid-1990s had vanished. Peruvian coca cultivation was relatively low, despite a modest increase that was not least due to high coca prices, and aerial smuggling seemed much reduced. In Bolivia, developments were positive as well from a US perspective. Despite the fierce resistance of coca farmers, President Hugo Banzer implemented Plan Dignity, an aggressive coca eradication scheme that led to the halving of Bolivian coca cultivation and possibly the reduction of a third of the country's cocaine production between 1998 and 2001.<sup>102</sup>

In Colombia, however, the situation was troubling. Record levels of coca cultivation, cocaine production, and drug smuggling, as well as the fact that most of the heroin consumed on the US East Coast came from Colombia, helps to explain the US focus on the country. In addition, the US interest in exploiting Colombia's natural resources, and particularly its oil wealth,<sup>103</sup> coupled with the threat posed by ever-stronger guerilla forces, led to an increase in US aid to the Colombian government, and eventually to Plan Colombia.

On 20 April 2001, the Air Bridge Denial Program ended tragically when the Peruvian air force shot down a civilian aircraft over Peruvian airspace carrying a US missionary family, killing the wife and her infant daughter. The shoot-down caused outrage in the US also because the Peruvians had received support from a private US military company hired by the CIA. As part of the debate over the outsourcing of military activities, a former US planner of counter-drug missions said that "[t]here wasn't one person aboard that [CIA-commissioned] plane sworn to uphold the Constitution of the United States. They were all... businessmen!"<sup>104</sup> Following the shoot-down, the White House suspended the ABDP.<sup>105</sup>

Until this point, the article has provided a chronological analysis of the Air Bridge Denial Program. The program began in the later 1980s and ended in 2001. Until 1995, the program was implemented relatively sporadically. During this early phase, coca cultivation began to increase in Colombia and decrease in Peru. The main phase of the ABDP saw an acceleration of this trend, as well the verticalization of the Peruvian and Bolivian drug industries, and the use of new trafficking routes and methods. Thus, displacement did occur, and it coincided roughly with the ups and downs of air interdiction. However, saying that displacement was a consequence of the ABDP would oversimplify things. To better understand and explain displacement, the next section refers to the causal mechanism developed in the introduction.

### **A causal mechanism of displacement**

The initial causal mechanism, which helps to understand and explain displacement, is composed of several elements: the selectivity of US foreign policy, the flexibility of the drug industry, problems of drug producing and transit countries to implement laws against drugs, and contingent conditions. The following discussion examines these factors, as well as empirical black boxes and alternative explanations.

#### **The selectivity of US foreign policy**

Several characteristics of the US-sponsored air interdiction effort contributed to displacement. These include coordination and legal problems, the application of law enforcement pressure on a local instead of a countrywide or region-wide basis, and a focus on coercion instead of non-coercive strategies. However, it must also be said that the US did try to prevent Colombia from becoming the world's prime coca cultivation country.

As discussed above, US concerns about liability claims in case of accidental shoot-downs led to the suspension of air interdiction during the ABDP's early phase and thus provided traffickers with windows of opportunity. US agencies found it difficult to coordinate their response to the shoot-down policies of the Colombian and Peruvian governments. Some agencies and officials demanded a suspension of interdiction and others a continuation.<sup>106</sup> Moreover, US agencies failed to agree on the military hardware used for interdiction, with various agencies favoring the use of their respective weapons and intelligence systems.<sup>107</sup> Often, the material used was inadequate for aerial interdiction. In 1993, for example, the General Accounting Office complained that "[s]ensors designed to detect large supersonic aircraft and nuclear-powered submarines are less proficient against low-flying planes and small wooden boats."<sup>108</sup> Some pivotal US players in the interdiction effort, such as the US military and the DEA, at times were barely on speaking terms with one another.<sup>109</sup>

Not least because of these coordination problems, US agencies failed to apply law enforcement pressure in a holistic fashion, thus allowing traffickers to escape or circumvent aerial interdiction.<sup>110</sup> As Sewall Menzel writes, Washington implemented

a series of operations and programs, sometimes operating in tandem and sometimes not. Highlighting this fact was General Fred Woerner's annual SOUTHCOM conference on Latin American issues in early 1988. When queried at the conference if the Department of State had an

anti-drug strategy for the Andean region, Ann Wroblesky, the Department of State's Assistant Secretary of State for International Narcotics Matters stated openly to those in attendance that: "We have no strategy; we just operate!"<sup>111</sup>

This failure to arrive at common strategies and to implement these strategies across South America hampered Washington's anti-drug effort at various times and places. The DEA in Bolivia sometimes did not receive information about US operations in other countries,<sup>112</sup> and operations in Peru were sometimes not properly coordinated with operations elsewhere.<sup>113</sup> Even in Peru, the fact that the US focused on the UHV until the mid-1990s meant that coca cultivation in other parts of the country experienced relatively little interference.<sup>114</sup> During the ABDP's main phase, US agencies were sometimes unaware of the lessons learned during earlier interdiction operations, apparently also because of a fast turnover of personnel and the obligation to destroy documents.<sup>115</sup> In Colombia, US supply reduction policies suffered from the late arrival of spare aircraft and helicopter parts.<sup>116</sup>

While selectivity contributed to displacement, one should not overstate the point. After all, the US was very active in Colombia at the time when coca cultivation shifted to that country. The ABDP's main phase roughly coincided with a historically unprecedented aerial fumigation campaign. The Samper administration, ostracized by the US, was under pressure to act as a loyal ally in the 'war on drugs' and thus agreed to constantly increase fumigation.<sup>117</sup> Yet despite an intensive spraying campaign by the Colombian National Police, Washington's closest cooperation partner in the second half of the 1990s, 2.5 times more coca was cultivated in 1998 than in 1992.<sup>118</sup> Thus, displacement occurred *despite* large-scale US efforts to reduce drug supplies that cost US taxpayers hundreds of millions of dollars.

Last, US drug policy was selective in the sense that priority was given to coercion. Washington largely considered drugs to be a matter for law enforcement and the military, and not a social and development issue. Thus, most US funds were invested into air interdiction, military operations on the ground, or eradication. Although the US also invested substantial sums of money into alternative development, the delivery of aid was often coupled to tight eradication deadlines and the threat of the use of force in case the deadlines were not met. This strategy antagonized farmers and added to the impression that the US did little to provide sustainable help to farmers who often lived in dire conditions.<sup>119</sup> Hence, poverty, which gives rise to the displacement of illicit cultivation, persisted.

### **The flexibility of the drug industry**

To understand and explain the displacement of coca cultivation to Colombia, the verticalization of the Bolivian and Peruvian drug industries, and the dispersion of trafficking routes, one must take into account the impressive ability of traffickers to avoid interdiction. Frequently, the technology available to traffickers was superior to that used by security forces. In the early 1990s, the Peruvian air force did not have the means to fly and fight at nighttime and to fly fast. Traffickers exploited this vulnerability by flying in the dark, switching to fast two-engine planes, and flying below the levels covered by radar stations.<sup>120</sup> Moreover, they reduced interdiction risks and transport costs by transporting large drug shipments and by flying in zigzag patterns, in the shadow of large commercial aircraft and in groups of several planes that then split up so as to confuse interdiction teams.<sup>121</sup> They also avoided detection from US ground radar stations in Peru and Bolivia by flying into countries such as Ecuador and Brazil where radar coverage was less dense. Since money was often less of a problem for some traffickers than for security forces, the former were able to procure sophisticated technology, as described by Robert Filippone:

[The traffickers] have state-of-the-art equipment, including satellite radios, digital decryption devices, and voice privacy mechanisms, that makes it difficult for even the U.S. armed forces to penetrate. [US] General Gorman made this clear when he said, "I have seen equipment used on the aircraft that fly between the United States and Colombia, and I can assure you that it is more sophisticated and more facile than the equipment that I had on my aircraft of the U.S. Air Force in the U.S. Southern Command". He went on to say that the government's communication system is regularly intercepted by the traffickers and that traffickers can track the movements of armed forces units better than the respective commanders.<sup>122</sup>

To make matters worse for governments, simple means used by traffickers were often sufficient for transporting drugs. These ranged from motorboats and trucks to canoes, cars, and backpacks. The vastness of the Andean region, in combination with poorly equipped Andean security forces, offered numerous options for dispersing trafficking routes.

Innovative behavior of traffickers also led to the verticalization of the Peruvian and Bolivian drug industries. In Peru, for example, Colombian traffickers showed locals how to produce coca paste and how to operate drug laboratories producing *agua rica* (liquefied cocaine base). This diversification of the drug industry reduced costs as well as the risks of interdiction and seizure.<sup>123</sup> Although ground operations may have been the main motivation behind the

increase in Peruvian and Bolivian drug production, air interdiction probably played a role as well.

In Colombia, traffickers induced peasants through threats or financial incentives to grow coca. The increase in Colombian cultivation reduced traffickers' dependence on Peruvian and Bolivian coca and thus made the drug industry more efficient through a reduction of interdiction risks. However, it is important to note that the increase in Colombian cultivation was not only a result of a conscious strategy. For many smaller trafficking groups, it was a necessity, since they did not have the means to fly to Peru and Bolivia to buy coca paste.

### **Weak law enforcement**

In addition to the selectivity of US foreign policy and the flexibility of the drug industry, in order to understand and explain the displacement of the drug industry one must also examine the ability of South American states to implement laws against drugs. Weak law enforcement can manifest itself in several ways. This section only looks at corruption and the failure of states to control the national territory.

For obvious reasons, corruption is notoriously immune to systematic scientific analysis. Still, there are indications that corruption hampered the air interdiction effort and that it was conducive to displacement. In Bolivia in the 1980s, for example, traffickers apparently offered security forces and municipal officers between \$15,000 and \$25,000 for a 72 h-long silence during which the traffickers would land their aircraft, pick up drugs, and leave again.<sup>124</sup> Similarly, in Colombia, officials who were on the payroll of traffickers warned the latter of raids in advance. During the 1992 Operation Support Justice, air interdiction rates were presumably lowered because Colombian air controllers operating at the country's 497 legitimate airports passed information about interdiction onto traffickers.<sup>125</sup> And in Venezuela in the early 1990s, the presidency of Carlos Andres Perez was rocked by allegations of corruption, leading to coup attempts, which in turn led to the arrest of up to 2,500 air force pilots and technicians.<sup>126</sup> It is unlikely that traffickers would have failed to take advantage of such opportunities.

A lack of territorial control was conducive to displacement as well. During the first half of the 1990s, Peru counted almost 400 airports. Eighty of these were outside of government control.<sup>127</sup> This offered unique opportunities to traffickers. These often struck alliances with Senderista guerillas, who protected rural areas against incursions from security forces. As shown below, the strength of Sendero Luminoso was greatly diminished during the second



half of the 1990s. However, territorial control remained a problem, as indicated by the statement of a US State Department official who, in February 1997, commented on the difficulties the US and Peru encountered while trying to establish a riverine interdiction program: “[Y]ou still have to deal with the insurgency at night. What you are talking about is imposing control over areas that the central Government has never controlled.”<sup>128</sup> This meant that there was no limit to the number of potential trafficking routes.

In Colombia, the drug industry was thriving not least because the government was unable to prevent strong rebel and paramilitary forces from infiltrating or controlling sizeable parts of the national territory. Coca cultivation increased especially in areas controlled by the FARC, who often fired at fumigation aircraft. However, the FARC’s main participation in the drug industry was through the taxation of coca fields, as confirmed by the DEA.<sup>129</sup> As shown in the next section, an explanation of the displacement of the drug industry to Colombia must also take into account smaller trafficking groups and paramilitaries.

### **Contingent conditions**

Contingent conditions, which may or may not be related to US foreign policy, had an impact on drug industry displacement.<sup>130</sup> Most importantly, law enforcement operations in Colombia and a general restructuring of the Colombian drug industry reduced the importance of the drug smuggling air bridge between Peru and Colombia, contributed to an increase in Colombian coca cultivation, and were conducive to the verticalization of the Bolivian and Peruvian drug industries.

As shown above, aerial smuggling saw a brief decline in the late 1980s and early 1990s. This decline can mainly be attributed to the fact that at that time, and following the murder of Colombian presidential candidate Luis Carlos Galán, the Medellín trafficking group, which was very active in aerial smuggling, had to keep a low profile. By the time the head of the Medellín cartel, Pablo Escobár, was killed by security forces (on 2 December 1993), the rival Cali group had already become the most powerful trafficking organization. It specialized in corruption rather than violence and was probably responsible for the bulk of aerial trafficking. The shrewd Cali traffickers also increased coca cultivation in Colombia to make the drug industry more efficient and to increase profits.

However, smaller trafficking groups played the main role in the verticalization of the Colombian drug industry. Lacking control over international trafficking networks and aerial technology, these ‘baby cartels’<sup>131</sup> had to rely

on Colombian raw material and thus induced peasants to plant coca.<sup>132</sup> The arrest of leading Cali traffickers in 1995 again greatly facilitated this 'democratization' of the Colombian drug industry. Moreover, and as mentioned above, the increasing strength of the FARC, ELN, and paramilitaries led to an increase in Colombian coca cultivation.

The rise of smaller trafficking groups and non-state armed forces was part and parcel of the escalating Colombian conflict. The combination of societal disintegration, relatively weak social norms against the use of violence, a delegitimized state, poverty, and other conditions that were present in several South American countries but particularly virulent in Colombia, provided a fertile soil for drug production and trafficking.<sup>133</sup>

To understand and explain increasing Colombian coca cultivation and decreasing Peruvian cultivation, as well as the verticalization of the drug industry in Peru, one must take into account Peruvian contingencies as well. In 1991, the fungus *Fusarium Oxysporum* appeared on coca fields in Peru and soon destroyed an estimated 30 percent of the coca cultivated in the UHV. As a consequence, cultivation increased along the Ucayali and Apurimac rivers, in the Lower and Middle Huallaga Valleys, and other regions. In 1994, UHV coca made up only 27 percent of total cultivation in Peru, a steep decline compared to its previous share.<sup>134</sup> These changes may well have posed problems to traffickers transporting coca paste to Colombia, since traffickers now had to fly to regions other than the UHV, incurring higher risks and costs. Moreover, the spread of the fungus may have convinced some traffickers of the need to increase cultivation in Colombia in order to reduce the risk of shortages in the supply of raw material.

The dismantling of the main Shining Path network during the second half of the 1990s proved significant as well. In the late 1980s and early 1990s, the Peruvian government, and particularly the military, was unwilling to eradicate coca, correctly believing that eradication would increase Sendero's popularity among coca farmers.<sup>135</sup> Thus, between 1989 and 1995, only coca seedbeds, in contrast to mature plants, were eradicated.<sup>136</sup> But the arrest of Shining Path leader Abimael Guzmán on 12 September 1992, and the subsequent arrest of numerous Sendero cadres and fighters, facilitated anti-drug operations. Now, the government wanted to reduce the drug revenues of the Shining Path, although still mainly by attacking the higher echelons of the trade. Only in the second half of the 1990s did coca eradication reach significant levels, with tens of thousands of hectares eradicated.<sup>137</sup> Operations against traffickers and coca eradication made life more difficult for Colombian traffickers and may well have convinced some of them of the need to reduce their dependency on Peruvian coca. Violent confrontations between traffickers and the Shining Path also contributed to reducing the presence of Colombians. This reduced

presence, in turn, was a prerequisite for the verticalization of the Peruvian drug industry, as it allowed more Peruvians to reach higher levels within the industry. Moreover, Bolivians may have found it easier to procure coca and coca paste from Peru and thus to increase cocaine production in, and drug exports from, Bolivia.

Numerous other contingencies contributed to a restructuring of the South American drug industry. In Peru, a relative improvement of the economy in the mid-1990s made other products such as coffee more attractive to farmers and thus reduced migration to regions where coca grew.<sup>138</sup> Moreover, a brief border war between Ecuador and Peru in 1995 increased the military presence in the border region and thus probably forced traffickers to choose alternative trafficking routes.<sup>139</sup> Last, natural phenomena such as El Niño rains, which made some clandestine airstrips inoperable, also influenced the business strategies of traffickers.<sup>140</sup>

To sum up this section, the empirical picture is highly complex. The displacement of the drug industry is influenced by various contingencies that are difficult to integrate into theoretical frameworks, since they appear randomly and interact with one another. Taking them into account implies abstaining from oversimplified statements about displacement. Although the ABDP did indeed influence traffickers' strategies, other factors, some of which were only indirectly related, or not related at all, to US foreign policy, played a role as well. But the issue is even more complex, as the next section shows.

### **Empirical black boxes and alternative explanations for displacement**

Understanding and explaining displacement is hampered by empirical black boxes resulting from the clandestine nature of the drug industry. Black boxes often lead to a proliferation of explanations for displacement, since a specific explanation cannot be excluded or proven beyond any doubt. In the present context, one of the main black boxes pertains to the most direct effect of the ABDP: the number of flights shot down, forced to the ground, deterred from flying, and/or seized. Already during a Congressional hearing in 1994, in which the cited number of suspected trafficking planes shot down over Peru ranged from 0 to 31, one participant complained that "it would be sort of nice to have our three top experts be prepared to answer such an unbelievably elementary question."<sup>141</sup>

Generally, confusion reigns over the number of planes prevented from delivering drug loads and over the question whether planes were shot down, forced to land, or deterred from flying. According to Menzel, the Peruvian military claimed that between 1991 and mid-1993, it had intercepted or shot

down 124 trafficking aircraft. Other sources provide much lower estimates.<sup>142</sup> During the ABDP's main phase, figures remained controversial. Whereas the US military reported in January 1996 that 27 smuggling planes had been shot down during Operation Green Clover, US Secretary of Defense William Perry three months later reduced the number of planes interdicted or shot down to only 12.<sup>143</sup> Other sources again cite different figures.<sup>144</sup> It is likely that fewer planes were intercepted in Peru every year in the second half of 1990s, with interception rates close to zero at the end of the millennium.<sup>145</sup> In Colombia, interception rates probably increased, although there is controversy over the numbers involved.<sup>146</sup>

Estimates of deterrence effects are similarly vague, since traffickers do not document how they adapt to law enforcement. Statements that purport to show exactly how interaction altered smuggling patterns are dubious. In October 1997, for example, McCaffrey alleged that Operation Green Clover had reduced the number of drug flights by 47 percent.<sup>147</sup> But how could he know, given that the total number of trafficking flights was unknown? Obviously, the lack of certainty regarding interception rates and deterrence effects poses problems for assessing the contribution of the ABDP to the restructuring of the Andean drug industry.

Another analytical challenge pertains to coca cultivation and cocaine production. The US government figures stated above, which show a rise in Colombian cultivation and a concomitant decline in Peruvian cultivation, are mere estimates. Exact figures are not available because farmers hide illicit crops among licit ones and because clouds often cover cultivation zones, just to mention two reasons. It is not surprising, therefore, that some researchers, for example Ricardo Vargas, provide higher cultivation estimates than those presented by the US government and illustrated in the chart and table in the annex.<sup>148</sup> Moreover, hectare figures do not tell the whole story, because the yields of coca fields can vary considerably. Traffickers often try to increase the productivity of illicit crops. Indeed, particularly between 1998 and 2001, better production methods helped to increase the productivity of fields.<sup>149</sup>

Further difficulties arise from the lack of sufficient knowledge about traffickers. The discussion above admittedly oversimplified matters for the sake of analytical parsimony. In reality, the situation was more complex. Traffickers operating in Peru, for example, came not only from Colombia, but also from Mexico. They may have entered the Peruvian drug market in 1993. Their presence, which led to instances of conflict and cooperation with Colombian traffickers, was still felt in the second half of the 1990s.<sup>150</sup> Moreover, some Peruvians, the best known of whom was Demetrio Limoniel Chávez, nicknamed El Vaticano, exported significant amounts of drugs to the US.<sup>151</sup> Such examples can be cited for the case of Bolivia as well.<sup>152</sup> Hence, the South

American cocaine industry was quite fuzzy, which makes it difficult to assess the impact of the ABDP on the industry. If it is unclear which actors were involved in the business, it is even more challenging to show why new actors came to the fore.

In addition, the factors determining the fluctuation of coca prices are obscure. In mid-2003, US embassy officials in Peru and Bolivia said that they did not know the underlying mechanisms of fluctuating coca prices in these two countries at that time.<sup>153</sup> James Painter writes that it is “almost impossible to ascertain the exact balance of factors in determining coca prices: whether the buyers do operate a cartel (given their numbers), whether they can maintain low prices, and what is the relationship between Colombian and Bolivian buyers.”<sup>154</sup> Yet explaining changes in coca prices is crucial for assessing the impact of US foreign policy on the drug industry, as high prices can lead to more coca cultivation and low prices to the abandonment of fields. Price changes are thus linked to displacement, and a fine-grained explanation of displacement requires examining the reasons behind coca price changes.

To make matters more complicated, it is unclear whether air interdiction reduced the amount of cocaine paste available in Colombia in the mid-1990s, with the DEA saying that there was no shortage of cocaine paste and Colombian specialist Ricardo Vargas reporting a steep rise in cocaine paste prices.<sup>155</sup>

A last black box deserves mentioning.<sup>156</sup> In the early phase of the ABDP, the demand for cocaine was rising particularly in Western Europe and elsewhere. Cocaine prices in these expanding markets were higher than in the US, leading traffickers to divert some supply routes and also bringing new traffickers and trafficker alliances to the fore. Local Brazilian traffickers, for example, appear to have struck alliances with Bolivian and Colombian coca producers and cocaine traffickers, which accelerated the verticalization trend particularly of the Bolivian cocaine industry. However, the causal impact of this demand-induced process on the Andean drug industry is not clear. The mutual constitution of demand and supply is a market force that is difficult to observe or quantify.

Given these empirical black boxes, it is not surprising that assessments of the ABDP's impact vary. Authors working for the US Institute for Defense Analyses (IDA), for example, write in the first chapter of a report issued in 2000 that Colombian traffickers increased coca cultivation in Colombia in 1994. This “may have been” due to higher costs resulting from higher fees for pilots flying from Peru to Colombia during interdiction operations Support Justice IV in 1992/1993, or to the anticipation of traffickers that interdiction would make the air bridge increasingly vulnerable.<sup>157</sup> In the third chapter, the authors write that it is “very likely” that Colombian traffickers invested in new Colombian coca cultivation because they saw air smuggling as increasingly

risky.<sup>158</sup> Similarly, in his 1996 book on drug policies in Peru and Bolivia, Sewall Menzel argues that the ABDP “caused” a steep decrease in the prices of coca leaves and cocaine paste. In his book on Colombia published one year later, he adds the arrest of leading Cali traffickers as a further cause of the drop in prices.<sup>159</sup>

Empirical black boxes can lead to a proliferation of explanations of displacement. One could argue, for example, that the increase in Colombian coca cultivation and the concomitant decline in Peru, as well as the dispersion of trafficking routes, would have occurred even in the absence of the ABDP due to the stronger role of Colombian non-state armed forces and smaller trafficking groups, more poverty in Colombia and less poverty in Peru, the dismantling of the Shining Path, and the spread of the fungus in Peru.

However, this alternative explanation of displacement is less convincing than an explanation that stresses the role of the ABDP as one of the reasons of displacement. After all, and as indicated above, traffickers seem to have taken the ABDP into account. Although air interdiction is a less-than-perfect deterrence against aerial smuggling since traffickers can circumvent interdiction or wait until surveillance equipment is withdrawn,<sup>160</sup> smugglers had to find new ways of staying in business as interdiction was stepped up. Already in the late 1980s, the drug ring of Gonzalo Rodriguez Gacha may have grown coca in Colombia to be prepared for cuts in Peruvian and Bolivian supply.<sup>161</sup> In late November 1995, after a period during which the Peruvian air force had applied a lethal shoot-down policy, lethal interdiction was suspended for over a month. During that time, smuggling flights are reported to have risen sharply.<sup>162</sup> The impact of the ABDP on smugglers’ risk perceptions is indicated by pilot fees as well. Whereas in 1994, pilots had asked for around \$30,000 to fly one drug load across the border of Peru and Colombia, in 1997 the price was around \$180,000.<sup>163</sup> The IDA report mentioned above confirms the responsiveness of smugglers to air interdiction:

Between 1989 and 1995, three only moderately successful operations had seldom interdicted more than 2.5 percent of the known trafficker flights. [. . .] [From 1995], the Peruvians achieved a remarkable degree of success. From March through November, air interdiction rates averaging 13 percent deterred another 64 percent of trafficker flights. [. . .] From a pilot’s perspective, an interdiction rate of 12 percent backed by lethal force would be daunting. If a pilot expects to smuggle six times in his career – the average number for inmates in federal prisons – surviving six flights with an 88 percent chance of success on each yields only a 46 percent chance of surviving all six attempts. Less than 50:50 chances of survival cannot be very attractive to pilots.<sup>164</sup>

It is important to note the limits of this statement. First, IDA reports on drug interdiction have received devastating reviews from scholars who reproached IDA authors for starting with a conclusion instead of with empirical data.<sup>165</sup> Moreover, the report cited above is based on the dubious assumption that clandestine activities can be precisely quantified. Nevertheless, the report supports the argument that the ABDP provided some form of deterrent, or at the very least that traffickers had to take it into account and therefore diversified their trafficking routes and methods. Hence, although some displacement may have taken place even without the ABDP, displacement would probably have occurred slower and less intensively. After all, the air bridge was a fairly convenient way for traffickers to do business.

The ABDP also contributed to the verticalization of the Peruvian and Bolivian drug industries, albeit in an indirect way, by reducing the number of Colombians buying coca and cocaine paste in Peru and Bolivia (although law enforcement in Colombia played a role as well). It is possible that the Colombians would have come under pressure from security forces and competitors anyway, but they were fairly well entrenched and would not have given up their business shares easily if it had not been for US-sponsored air interdiction.

Moreover, alternative development, the spread of the fungus, the exhaustion of coca fields, or coca eradication cannot satisfactorily explain the drop in Peruvian coca prices in the mid-1990s. Since these factors limited the supply of coca leaves, they should have driven up prices. The ABDP is thus a more convincing explanation for the decrease in Peruvian cultivation than these other factors<sup>166</sup> (although the arrests of leading traffickers from Cali played a role as well), since it reduced the demand for Peruvian coca. More generally, and to sum up this section, in the absence of the ABDP, displacement would probably not have occurred in the way it actually did.

## **Conclusion**

The aim of this article has been to understand and explain the restructuring of the South American coca/cocaine industry in the 1990s, or more precisely, to examine the link between the displacement of the drug industry and the Air Bridge Denial Program, a US-sponsored attempt to interdict the aerial smuggling of cocaine paste from Peru and Bolivia to Colombia. The first part provided an overview of achievements and shortcomings of the drug policy literature. It argued that scholars have paid too little attention to the causation of foreign policy side effects. This part also developed a causal mechanism for understanding and explaining displacement.

In the second part, it was shown that US-sponsored air interdiction coincided with the displacement of coca cultivation from Peru to Colombia, the verticalization of the Peruvian and Bolivian drug industries, and the diversification of drug trafficking routes. This restructuring process was particularly visible during the main phase of the ABDP lasting from 1995 to 2001. When the ABDP was suspended, the South American drug industry was much more complex than in the 1980s and early 1990s, i.e., at the time when the US began to implement the ABDP.

The third part of the article examined the different elements constituting the initial causal mechanism in order to better understand and explain displacement. First, it was shown that a selective application of US foreign policy pressure contributed to displacement. US agencies often did not properly coordinate their activities, pressure was applied only locally, and the emphasis was put on coercive measures with short-term effects. However, it must be noted that the displacement of coca cultivation to Colombia occurred despite large-scale US-sponsored aerial eradication.

Second, the analysis showed that traffickers proved to be highly flexible in their attempts to evade air interdiction. They used sophisticated technology that was often superior to that used by security forces, but also employed simple, effective means. Moreover, in the face of concerted interdiction, traffickers increased smuggling on roads, rivers, and the ocean. Furthermore, traffickers did not fail to see the advantages of increasing the cocaine output in Bolivia and Peru. Meanwhile in Colombia, traffickers, either to improve efficiency or out of necessity, induced peasants to plant coca.

As a third element for explaining displacement, the causal mechanism posited weak law enforcement capacities on the part of drug producing and transit states. Lack of territorial control and corruption were particularly conducive to the spread of coca cultivation to Colombia and the diversification of trafficking routes. While the partial destruction of the Shining Path in Peru helped to reduce the presence of Colombian traffickers in Peru, the drug industry in Colombia thrived under an explosive mix of idiosyncrasies.

This leads to the fourth, and last, element of the initial causal mechanism: contingent conditions. The displacement of the drug industry was enabled by numerous military, political, economic, and social conditions, many of which were unrelated to US foreign policy. In Peru, the spread of a mysterious fungus, pressure on the Shining Path, and a relative improvement of the economy contributed to a steep decrease in the size of land used for illicit cultivation and the spread of coca to Colombia. In Colombia, the intensity of aerial smuggling fluctuated depending on the structure of the country's trafficking industry. Flights to Peru decreased, and indigenous coca cultivation increased, with the decline of the Medellín and Cali groups, the proliferation



of smaller groups, and the strengthening of rebels and paramilitaries. These developments were both a cause and consequence of the weakness of the Colombian state and society. These and other contingent conditions underline that the popular metaphor of displacement as a balloon effect is misleading, since this metaphor is based on a mono-causal understanding of displacement.

In addition to these contingent conditions, an assessment of the reasons behind displacement is complicated by empirical black boxes. Not least due to these black boxes, one could argue that the ABDP did not have any impact on displacement. However, this statement is as exaggerated as the contrary view held by many US policymakers that the ABDP was successful since it caused a reduction of Peruvian coca cultivation. This article has cited substantial evidence showing that a host of factors led to displacement, but that US-sponsored air interdiction was one of these. In the absence of the ABDP, a restructuring of the South American drug industry may have occurred as well, but probably along different spatial and temporal lines. The ABDP was thus a necessary, although not sufficient, condition for the kind of displacement described in this article.<sup>167</sup> US foreign drug policies have once more contributed to reshaping South American history.

It is important to note that this article presented a plausibility argument; it did not systematically test the validity of the causal mechanism through standard positivist methods such as controlled variation of explanatory factors, because these methods would have been inappropriate at this early stage in the theorizing of displacement. The need for a heuristic, interpretative approach arose from the presence of various empirical black boxes, the presence of complex, dynamic interaction effects, the fuzzy nature of corruption and other phenomena contributing to displacement, and the difficulty of assigning causal weight to explanatory factors and processes. Another caveat is that while this article has focused on US-sponsored aerial drug interdiction, various other law enforcement operations were undertaken by the US and Andean governments simultaneously with air interdiction. Last, this article looked at one case only, i.e. one anti-drug initiative (air interdiction) against one type of drug (cocaine) in one region (South America) during a particular period (the 1990s).

Given these empirical and methodological problems and research choices, doubts remain about the causal impact of the ABDP and the validity of the causal mechanism. It cannot be ruled out beyond doubt that unknown factors, contingent conditions unrelated to US air interdiction, or other law enforcement activities in South America had a greater impact on the region's illicit drug industry than the ABDP. To assess the validity of this article's tentative findings, the causal mechanism must be applied to more cases to find

out whether it operates independently of time, space, and type of drug, i.e., whether it constitutes a general mechanism.<sup>168</sup> Moreover, more empirical information is needed to tell a more complete and more coherent story. These shortcomings notwithstanding, the available evidence supports the argument that the ABDP contributed to fundamental changes in the South American drug industry. Air interdiction has made a difference.

The change, however, has not been for the better. This article, which aimed at understanding and explaining displacement, has disregarded the consequences of displacement and the impact of air interdiction on democracy and human rights in Latin America. Yet it is important to note that the ABDP, by contributing to an increase in Colombian coca cultivation and a proliferation of trafficking routes, has made the Colombian conflict even more intractable and has contributed to spreading drug-related problems such as violence and corruption across South America. Moreover, air interdiction forged a close relationship between the US and the Fujimori-Montesinos regime. Cynthia McClintock and Fabián Vallas are right in pointing out that this relationship has given rise to many questions about the overall anti-drug effort.<sup>169</sup> Besides, air interdiction has cost US taxpayers hundreds of millions of dollars, without improving drug problems in the US. Planners of current and future aerial drug interdiction programs (such as the air interdiction program restarted in Colombia in August 2003, whose results, according to a September 2005 report of the US Government Accountability Office, were mixed)<sup>170</sup> should take into account the ineffectiveness and ‘collateral damage’ of air interdiction from the late 1980s until 2001.

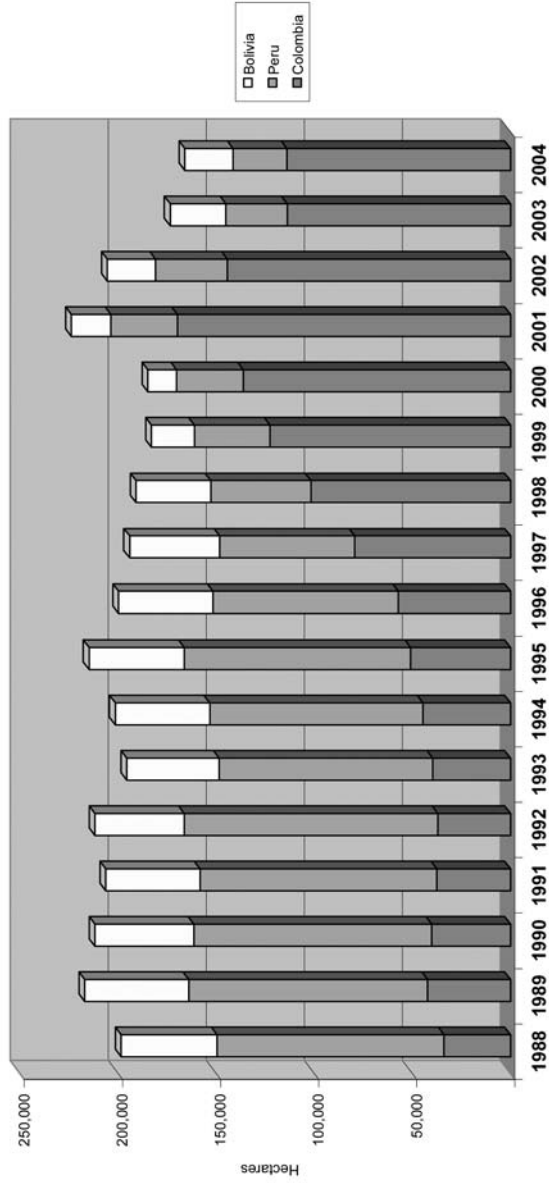
The problem is, of course, that the US drug war continues despite the lessons of history – for well-known reasons. These include the ability of politicians to attract votes through promises to be tough on drugs; vested interests of US federal agencies and business sectors such as the arms industry; media corporations that prefer to show Special Forces rather than drug treatment facilities; and the partially irrational, yet resilient support among many policymakers and parts of the public for law enforcement and punishment. Given these obstacles, Peter Reuter’s assessment that research has had little influence on US drug policy is not surprising.<sup>171</sup>

Drug policy researchers largely agree on what needs to be done to make US drug policies less ineffective (and maybe even more effective) and to mitigate the negative side effects of policies implemented under the constraints imposed by drug prohibition. Coercive international drug policies in source or transit countries that are intended to raise drug prices in the US fail to take into account industry characteristics such as the drug value-addition process. Domestic law enforcement is arguably slightly more effective in raising prices, reducing availability, and reducing purity than international coercive policies

**Annex: Changes in Andean coca cultivation, 1988–2004 (courtesy of Adam Isacson)**

**Andean Coca Cultivation**

Source: State Department International Narcotics Control Strategy Reports, 1996-2004



	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Colombia</b>	34,000	40,100	37,100	39,700	39,700	44,700	44,700	50,900	57,200	79,500	101,800	122,500	136,200	169,800	144,400	113,850	114,000
<b>Peru</b>	115,530	121,685	120,800	129,100	108,800	108,600	108,600	115,300	94,400	68,800	51,000	38,700	34,100	34,000	36,600	31,150	27,500
<b>Bolivia</b>	48,925	52,900	47,900	45,500	47,200	48,100	48,100	48,600	48,100	45,800	38,000	21,800	14,600	19,900	24,400	28,450	24,600
<b>Total</b>	<b>198,455</b>	<b>216,985</b>	<b>211,700</b>	<b>211,700</b>	<b>195,700</b>	<b>201,400</b>	<b>201,400</b>	<b>214,800</b>	<b>199,700</b>	<b>194,100</b>	<b>190,800</b>	<b>183,000</b>	<b>184,900</b>	<b>223,700</b>	<b>205,400</b>	<b>173,450</b>	<b>166,100</b>

– but it also fails to reduce supply significantly, and it leads to costs such as exploding prison populations.

Harm reduction on the drug production and consumption side is a viable alternative to the law enforcement and punishment model that has dominated US drug policies for so long.<sup>172</sup> In South America and elsewhere, alternative development can help reduce the dependency of farmers on illicit crops. Although alternative development is no panacea to drug problems (it can actually contribute to pushing illicit cultivation to new areas, as probably happened in Thailand and Burma)<sup>173</sup>, it is better suited than coercion to achieve a sustainable reduction of drug supplies over a long term, which in turn could translate into less drug consumption. With regard to domestic drug policies in the US, drug treatment and prevention, as well as research into the causes and consequences of drugs and drug policies, are simply the best options. To the extent that these non-coercive domestic policies help reduce the demand for illicit drugs, they would give additional impetus to supply reduction. Will the US move toward harm reduction? The obstacles to drug policy reform mentioned above warrant skepticism.

## Notes

1. Earlier versions of this article were presented at the 63rd Annual National Conference of the Midwest Political Science Association, April 7–10, 2005, Chicago, and at the George Washington University Seminar on Andean Culture and Politics, April 21, 2005. These earlier versions were written while I was a Visiting Fellow at the Watson Institute for International Studies, Brown University. For their hospitality at Brown, I thank especially Peter Andreas, Thomas Biersteker, and James Der Derian. For their comments, I thank Peter Andreas, Christopher Findlay, J. Michael Greig, Adam Isacson, Peter K. Manning, Cynthia McClintock, Daniel Möckli, Theo Roncken, Andreas Wenger, Nedd Willard, Coletta Youngers, and the anonymous reviewers.
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82. Zirnite, *The Militarization of the Drug War in Latin America*, pp. 170–171.
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84. Jayme Brener, “Radical Maneuvers,” in Transnational Institute, The Bolivian Documentation and Information Center, and Inforpress Centroamericana (eds.), *Democracy, Human Rights, and Militarism in the War on Drugs in Latin America* (Guatemala: Inforpress Centroamericana, 1997), p. 17.
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103. Thad Dunning and Leslie Wirpsa, “Oil and the Political Economy of Conflict in Colombia and Beyond: A Linkages Approach,” in: *Geopolitics* 2004 (9: 1), 81–108, here p. 93.
104. Quoted in: Juan O. Tamayo, “Risks for U.S. Military in Andes Drug War,” *The Miami Herald*, 22 May 2001.
105. For a chronology of the accident see the report of a joint US-Peruvian investigation: Department of State, Bureau of International Narcotics and Law Enforcement Affairs, *Peru Investigation Report: The April 20, 2001 Peruvian Shootdown Accident*, Washington DC, 2001.
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107. Menzel, *Fire in the Andes*, p. 147; Menzel, *Cocaine Quagmire*, p. 125.
108. Quoted in: Zirnite, *The Militarization of the Drug War in Latin America*, p. 169.
109. McClintock/Vallas, op. cit., pp. 120 and 139.
110. Aerial interdiction is not the only element of the US anti-drug effort that was hampered by a selective application of pressure. Ground operations were marked by selectivity as well.
111. Menzel, *Fire in the Andes*, p. 33. See also Menzel, *Cocaine Quagmire*, p. 52.
112. Menzel, *Fire in the Andes*, pp. 72–73.
113. *Ibid.*, p. 215.
114. *Ibid.*, p. 185.
115. Zirnite, *The Militarization of the Drug War in Latin America*, 30; United States General Accounting Office, *Long-Standing Problems Hinder U.S. International Efforts*, February 1997 (Washington DC: General Accounting Office, GAO/NSIAD-97-75), pp. 15–16.
116. General Accounting Office, *An Overview of U.S. Counterdrug Intelligence Activities*.

117. Tokatlián, op. cit., p. 20; Rensselaer W. Lee III and Francisco E. Thoumi, "The Political-Criminal Nexus in Colombia," *Trends in Organized Crime* 1999 (5:2), 59–84, here pp. 71–77.
118. Vargas, *The Anti-Drug Policy, Aerial Spraying of Illicit Crops and Their Social, Environmental and Political Impacts in Colombia*, pp. 22–23.
119. David Mansfield and Jim Whetton, "Illicit Drugs in Developing Countries: A Literature Review," University of Swansea, Centre for Development Studies, 1996, p. 43; LaMond Tullis, *Unintended Consequences: Illegal Drugs and Drug Policies in Nine Countries* (Boulder: Lynne Rienner, 1995), p. 163.
120. Roncken, op. cit., p. 52; Menzel, *Cocaine Quagmire*, p. 125.
121. Howard, op. cit., p. 31; Riley, op. cit., p. 191.
122. Filippone, op. cit., p. 341.
123. Menzel, *Fire in the Andes*, p. 167.
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129. Arlene B. Tickner, "Colombia and the United States: From Counternarcotics to Counterterrorism," *Current History* 2003 (101: 661), 77–85, here p. 80.
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131. "Birth of the Baby Cartels," *Newsweek* 1995 (21 August 1995), p. 16.
132. Ricardo Vargas, "The Impact of U.S. Fumigation Programs," in *Counter-Narcotics Policy and Prospects for Peace: Eradication and Alternative Development in Southern Colombia*, Report of a Seminar Sponsored by the George Washington University and the Washington Office on Latin America, 29 October 1999.
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134. Riley, op. cit., pp. 107–108; Youngers, *Fueling Failure*, pp. 3–4; Bruce H. Kay, "Violent Opportunities: The Rise and Fall of 'King Coca' and Shining Path," *Journal of Interamerican Studies and World Affairs* 1999 (41:3), 97–127, here p. 109.
135. David Scott Palmer, "Peru, the Drug Business and Shining Path: Between Scylla and Charybdis?," *Journal of Interamerican Studies and World Affairs* 1992 (34: 3), 65–88.
136. McClintock/Vallas, op. cit., p. 115.
137. Dietrich, op. cit., p. 26.
138. Kay, op. cit., pp. 114–115.
139. McClintock/Vallas, op. cit., pp. 78–84. For a slightly different interpretation see Rojas, op. cit., p. 197.
140. National Narcotics Intelligence Consumers Committee, op. cit., p. 25.
141. Quoted in: Roncken, op. cit., p. 7.
142. Menzel, *Fire in the Andes*, p. 184; McClintock/Vallas, op. cit., p. 115.
143. Zirnite, *The Militarization of the Drug War in Latin America*, pp. 170–171; Zirnite, *Reluctant Recruits*, pp. 28–29.
144. Independent Task Force, op. cit., p. 48; Roncken, op. cit., p. 48, footnotes 99 and 100; McClintock/Vallas, op. cit., p. 115.

145. McClintock/Vallas, op. cit., p. 115.
146. For a high figure see Robert Lessmann, "Amerikanisierung und Militarisierung: Die auswärtige Drogenpolitik der USA," in P. Rudolf and J. Wilzewski (eds.), *Weltmacht ohne Gegner: Amerikanische Aussenpolitik zu Beginn des 21. Jahrhunderts* (Baden-Baden: Nomos, 2000), 335–362, here p. 348, footnote 31. For a lower estimate see Bruce M. Bagley, "Drug Trafficking, Political Violence and U.S. Policy in Colombia in the 1990s," *Working Paper*, 5 January 2001 (Miami: University of Miami), p. 5, [http://www.mamacoca.org/junio2001/bagley\\_drugs\\_and\\_violence\\_en.htm](http://www.mamacoca.org/junio2001/bagley_drugs_and_violence_en.htm) (last accessed on 1 December 2005).
147. Roncken, op. cit., p. 48.
148. Vargas, *The Anti-Drug Policy, Aerial Spraying of Illicit Crops and Their Social, Environmental and Political Impacts in Colombia*, p. 22.
149. Transnational Institute: *Progress Report as a Contribution to the Midterm (2003) Review of UNGASS*, pp. 3–4.
150. Hoffmann, op. cit., p. 587, footnote 3; Central Central Intelligence Agency, op. cit.
151. Riley, op. cit., p. 183. Chávez later accused Montensinos of complicity in the drug trade. See Rojas, op. cit., p. 208.
152. Menzel, *Fire in the Andes*, p. 54.
153. Author interview with senior US government official of the Narcotics Affairs Section (NAS), US Embassy, Lima, 28 August 2003; author interview with senior US government official of the NAS, US Embassy, La Paz, 2 September 2003.
154. Painter, op. cit., p. 91. See also Riley, op. cit., p. 123.
155. For the DEA assessment see Roncken, op. cit., p. 10. For the opposite view see Ricardo Vargas, "Die ökonomischen und sozialen Auswirkungen einer Gangster-Wirtschaft: Drogengeschäft und Arbeitsplätze in Kolumbien," in B. Rüttsche and P. Stirnimann (eds.), *Drogen und dritte Welt: Plädoyer für eine neue Nord-Süd-Drogenpolitik* (Luzern: Exodus, 1997), 62–73, here p. 64.
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