

**INTERPLAY AMONG LAND LAW AND POLICY,  
THE ENVIRONMENT, THE WAR ON DRUGS,  
NARCOTERRORISM, AND DEMOCRATIZATION:  
PERSPECTIVES ON PERU'S UPPER HUALLAGA VALLEY**

by

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## SUMMARY

Coca production is of obvious concern to the United States. It causes environmental damage. It threatens the health of our citizens. It has contributed to violence in the US, Peru, and elsewhere, and threatens the functioning of some newly formed democracies. It also distorts the economy and discourages productive participation by the poor. Policymakers are discussing land law and policy in this fight against coca.

Since 1969 in Peru's Upper Huallaga Valley (UHV), the Peruvian Department of Agriculture has carried out extensive land reform programs and titling efforts. Land is effectively titled, traded, and sold in an organized fashion. Unfortunately, the UHV is also now a world-leading source of the coca leaf used to produce cocaine.

Various experts have debated how to conquer the drug problem. Governments have taken steps against cultivation, refining, trafficking, selling, buying, consuming, and money laundering. In the fight against the element of cultivation, policymakers have suggested several solutions, including legalization, repression, government-sponsored coca purchases, and titling. Of these, the *Instituto Libertad y Democracia* (ILD) has advocated titling as the best means to restrict coca production. Governments have tried many of these solutions, but no single one is adequate. The current strategy is probably the best—making coca an economically unattractive good to produce relative to other agricultural commodities. This can be done through a multifaceted approach combining several of these efforts with attempts to decrease demand.

The ILD antinarcotics titling plan will not accomplish its goal. Coca producers neither want nor need title, and they are motivated not by legal formality but by economic interest. Further, the ILD plan does not properly consider: (1) titling and registration efforts already in place, (2) the dynamic of land markets and coca production in the region, and (3) the role of *Sendero Luminoso* (or "Shining Path," a Peruvian guerrilla group).

To be successful, we will need improvement of the property registry base created by the Department of Agriculture as one element of a broader package. This package would also include improved infrastructure, hard (roads, bridges, electricity, phones, etc.) and soft (basic education, university extension, credit, access to appropriate technologies, etc.). Repression can play a role by increasing the costs associated with coca production. Yet, it is not likely to succeed without corresponding efforts to make alternative crop-producing activities economically viable. Implementation of this plan will continue to be expensive and will involve continued research and definition of the problem.

In analyzing this problem, it would be intellectually dishonest to disregard the driving force of coca production—demand. The solutions above are designed to make alternatives to coca production less expensive and more lucrative. Yet, they are likely to prove futile while demand remains high.

## INTRODUCTION

On 18 August 1989, President George Bush and President Virgilio Barco of Colombia declared "war" on the drug traffickers.<sup>1</sup> Last winter, the Fujimori Initiative went into effect to control of drugs.<sup>2</sup> In the summer of 1991, the United States and Peru entered an agreement on drugs and development.<sup>3</sup>

Ambassador James H. Michel, Assistant Administrator for the Latin America and Caribbean Bureau of the Agency for International Development, has stated:

The production, trafficking, and consumption of drugs is a serious problem that affects every corner of the Hemisphere and threatens to interfere with the attainment of market-based economic growth and the evolution of stable, democratic societies. . . . Alternatives must be available in order to persuade individuals to stop growing, producing and processing illicit drugs.

The overall goal of the Andean Counterdrug Initiative is to disrupt and dismantle the multinational criminal organizations that support the production, processing, transportation, and distribution of cocaine to the United States and to other nations. It is only within this overall context that alternative development and income-substitution programs will have any chance of success. Sustained, vigorous law enforcement can successfully disrupt the coca market and lower the farm-gate price of coca leaf. Alternative economic opportunities then become viable.<sup>4</sup>

The Latin America and Caribbean Bureau of the Agency for International Development, in its statement of objectives, has dedicated itself to: "Contribute to the formulation and implementation of United States Government strategies for dealing with issues of particular concern, such as the production, trafficking and consumption of drugs, terrorism and environmental degradation."<sup>5</sup>

The war on drugs itself is a difficult one. "Peruvian coca leaves are processed by Colombians who ship their product through the Caribbean or Mexico. Jamaican middlemen distribute in the United States. Drug cash, often 'laundered' through Panama, Hong Kong or Liechtenstein, zips from Switzerland to Canada as electronic blips of bank funds. Cocaine barons troll Europe for customers, while assassins kill Latin American judges with weapons bought at Miami gun shops."<sup>6</sup>

In short, there is great interest in the drug issue which is itself difficult to solve. The United States<sup>7</sup> and other countries have tried to address issues of consumption,<sup>8</sup> money laundering,<sup>9</sup> corruption,<sup>10</sup> smuggling,<sup>11</sup> and apprehension of suspects.<sup>12</sup> Since Peru is the world's largest coca producer, attention has turned to this nation as a "cause" of the

problem.<sup>13</sup> Moreover, Peru's Upper Huallaga Valley (UHV) is the largest coca-growing area in Peru.<sup>14</sup>

This report examines the coca problem in Peru's UHV.<sup>15</sup> It is organized into the following sections: (1) background on Peru and the Upper Huallaga Valley; (2) coca production; (3) cash-flow and other economic effects of coca production; (4) environmental effects of coca production; (5) present land tenure situation of the UHV; (6) analysis of policy to combat environmental degradation, coca, narcoterrorism, and poverty; and (7) conclusions and recommendations.

## 1. BACKGROUND ON PERU AND THE UPPER HUALLAGA VALLEY

Peru is South America's third largest country. It borders Colombia and Ecuador in the north, Bolivia and Chile to the south, Brazil to the east, and the Pacific Ocean to the west. Land is categorized as (1) coastal<sup>16</sup> (where most of the population live), (2) sierra<sup>17</sup> (mountains), or (3) selva<sup>18</sup> (forest, jungle). The UHV is located between the Sierra and the Selva, northwest of Lima.

Between 1940 and 1970, Lima began a colonization plan for the UHV.<sup>19</sup> During this period, *campesinos* (peasant farmers) began to raise corn, yucca, pigs, and chickens, and, later, coffee, tea, cacao, fruits, and livestock,<sup>20</sup> with the centuries' old, traditional coca crop.<sup>21</sup> Manual labor flowed in and out of the valley from the nearby mountains to help in cultivation.<sup>22</sup> The UHV remains an area with the potential to be one of the world's important breadbaskets.<sup>23</sup>

In the 1960s, the Peruvian government built a highway to connect the UHV with surrounding areas. Next, it began a second push to colonize the land near Tingo María and Campanilla. The Inter-American Development Bank funded some colonization expenses.<sup>24</sup>

Then, in the 1970s, coca quickly became the only crop that was profitable to produce.<sup>25</sup> The economy became "cocalized." Narcotraffickers moved in and introduced violence through mafia-like practices. The greatest expansion in coca production has come in the last five years.<sup>26</sup>

Now, the UHV is also home to *Sendero Luminoso* ("Shining Path"). *Sendero* is a guerrilla movement which began in May 1980 and quickly spread from its original base in Ayacucho.<sup>27</sup> In 1983, *Sendero* moved into the UHV to increase its area of influence<sup>28</sup> and to impose taxes on the drug trade as a source of revenue for its insurgency. In 1984, the government placed the UHV in a "state of emergency" under military command.

In the UHV, propeller planes carry 1,000-kilo loads of coca leaves back to Colombia with little or no interference.<sup>29</sup> *Sendero* forces coca growers and narcotraffickers to pay *cupos* (taxes) at almost every step in the production process. Although this is a great expense to the growers and traffickers, they pay it, since the presence of *Sendero* keeps the armed forces, the police, and the US Drug Enforcement Agency (DEA) out.<sup>30</sup>

There is no clear, official connection between the indigenous terrorists "and the narcotics traffickers, although reports of arrangements between them have been made. However, traffickers and the terrorists tend to operate in some of the same areas. This complicates anti-narcotics efforts, since narcotics control cannot be accomplished in areas controlled by guerrillas."<sup>31</sup> Indeed, *Sendero Luminoso* advocates production of a diversity

of crops for self-sufficiency, and does not exclude coca. In this regard, *Sendero* and the narcotraffickers are at odds.<sup>32</sup>

In the UHV, there is a clear division of labor in coca production. Peruvians provide the coca leaves and sometimes coca paste.<sup>33</sup> Colombian drug traffickers refine the coca. The Colombians also transport it to the distribution centers in wholesale markets. Retailers purchase it there for sale in the United States.<sup>34</sup>

Some observers have tried to distinguish between the small farmer, who may grow coca with other crops, and the farmer who produces coca exclusively as a cash crop. The former produces coca to make ends meet—there should be no sin in having to produce coca out of poverty. The latter, however, earns a supernormal profit and is generally not accepted politically.<sup>35</sup> Yet, Peruvian law currently holds that both the *campesinos* and the Colombian narcotraffickers are criminals.<sup>36</sup>

Still, this distinction is becoming less and less useful. In the past, coca growers were cultivators, not processors. This has changed. In the last five years, the growers have educated themselves in chemistry and have entered the processing market as well. They are not simple, uneducated farmers anymore.<sup>37</sup>

Farmers have gone into processing for several reasons. First, it is lucrative. Second, products must be taken to a place to be sold, and carrying a week's supply of agricultural produce is very heavy work while hauling a week's supply of processed coca to market is easy. Further, a producer can often arrange for a pickup of coca paste by a person on a motorbike,<sup>38</sup> and this eliminates the hassle of carrying a product altogether.<sup>39</sup>

Coca production has led to a process of rapid fragmentation of land into smaller parcels.<sup>40</sup> It is estimated that coca growers can support themselves economically by cultivating as little as 2 hectares.<sup>41</sup>

Coca growers have insecure tenure because they have been unable legally to obtain title to land.<sup>42</sup> Generally, Peruvian law declares coca production unlawful,<sup>43</sup> and title can be rescinded if a farmer cultivates coca.<sup>44</sup>

The UHV is plagued by problems besides narcotrafficking. Infrastructure is spotty at best, and most of the rural area is without electricity.<sup>45</sup> The UHV has tremendous nutrition and health problems.<sup>46</sup> The population, having migrated to the region in search of employment, is now having to learn how to adapt to a new environment.<sup>47</sup>

Within the UHV, agricultural markets are few and often oversupplied.<sup>48</sup> In contrast, coca production provides a stable and increasing market with payment upon delivery.<sup>49</sup> Yet, attractive, external markets do exist in Lima and throughout the country for legal agricultural produce, provided growers can overcome transportation and security problems.

## 2. COCA PRODUCTION

Land has been classified into three basic categories in the UHV: (1) alluvial plains, where food production has traditionally taken place (about 210,000 ha, suitable for annual and perennial crops); (2) gentle sloping high terraces (about 417,000 ha, suitable for pasture); and (3) hillsides (of which 539,000 ha are suitable only for forestry, the remaining 834,000 ha being unsuitable for agriculture and in need of protection).<sup>50</sup>

Typically, depending on "climate zone" (a land classification which includes the altitude and soil quality, etc.), one crop may grow better than another. Coca, for example, grows in arid, fragile, acidic soil, at an elevation of 500 to 2,000 meters, where little else grows besides forest products.<sup>51</sup> It does less well in the moist, rich soils of the river basin. Yet, the question is one of degree: it can grow in the valley basin, it just does better at the higher climate strata.<sup>52</sup> One study found that between 60 and 70 percent of farmers in the UHV grew coca despite the location of their land.<sup>53</sup>

Coca farming has five distinct phases: (1) slash and burn (*reso*), (2) seedling preparation, (3) hole digging (*poseada*), (4) transplanting, and (5) cultivating.<sup>54</sup> Coca leaves can be harvested three to five times a year and then dried to prevent rotting.<sup>55</sup> Thus, coca has an additional advantage over other, legal crops, that is, multiple harvests.

The leaves of the coca bush are used to make coca paste. "After the fresh leaves have been mashed with alkali, kerosene and sulfuric acid (and sometimes potassium permanganate) are added. Further processing yields an off-white or light brown paste or semi-solid containing 40 to 70% cocaine (in both the salt and free-base forms), other alkaloids, benzoic acid, kerosene residue, and sulfuric acid, as well as other impurities."<sup>56</sup>

Although numbers are always shaky in this part of the world—for obvious reasons—one study has concluded that alternatives to planting coca are possible. Today, coca is 4.5 times more profitable than coffee and 1.9 times more lucrative than either cacao or *achiote*. Corn is not a viable alternative: coca is 37 times more profitable to produce.<sup>57</sup> It may be that improvement of infrastructure would decrease the cost of production for legitimate crops, while increased repression would drive up the costs of producing coca.

The *Proyecto Especial del Alto Huallaga* ("Special Project for the Upper Huallaga," or PEAH), financed by the Agency for International Development (AID) since 1981, encouraged the cultivation of food and cash crops other than coca leaf. The PEAH includes research, training, agricultural credit, infrastructure, and water.<sup>58</sup> Ongoing AID projects in the UHV related to land under the PEAH include titling, land registries, cadastres and mapping, soil classifications, and agricultural statistics generation. AID began these land-



related projects in 1982 and gave them a big push starting in 1985. They have continued to the present day.<sup>59</sup>

Promotion of alternative crops will continue to experience difficulties, however. *Sendero Luminoso* has attacked efforts to diversity production.<sup>60</sup> Fertile land in the valley, once cleared for agriculture and later abandoned for higher ground used to produce coca, has now become overgrown. It will need to be cleared again.

### 3. CASH-FLOW AND OTHER ECONOMIC EFFECTS OF COCA PRODUCTION

A staff study carried out in the US House of Representatives concluded that:

Contrary to the popular belief that narcotics money is crucial to the economic health of these countries, in fact the great majority of these illicit gains flow out of these countries and into off-shore bank accounts in the Caribbean and the United States. The laundered funds which are returned are mainly used for non-productive activities, such as real estate speculation, and conspicuous consumption of luxury goods.<sup>61</sup>

Indeed, it appears that most of the billions of dollars earned by cocaine traffickers stay abroad in offshore havens. Money is stored in such places as the Cayman Islands and Panama or invested in real estate, securities, and businesses overseas.<sup>62</sup> The central bank loses control over the flow of these dollars. No taxes are ever paid on the profits, depriving Peru of tax revenue from economic activity.<sup>63</sup>

Dollar inflows have led to unrealistic exchange rates in Peru. This in turn has caused Peru's legal exports to be less competitive in the world market, worsening its balance of trade.<sup>64</sup>

Small farmers sometimes use coca production as a means to finance perfectly legitimate crops. The *Banco Agrario* (Agrarian Bank) is presently without liquidity and is therefore making no loans. A small coca crop can be used to obtain quick cash to finance more traditional crops. Thus, by using coca production, the small farmer avoids long-term indebtedness, and he is more profitable in a shorter time span.<sup>65</sup>

Access to financing is important for several reasons. First, in the UHV, inputs to farming are expensive: the small farmer competes with coca growers for fertilizer,<sup>66</sup> pesticides, hired labor,<sup>67</sup> land, and so on.<sup>68</sup> Consequently, the small farmer's costs are high under coca-induced inflation.<sup>69</sup> Transportation of produce by hand is heavy and extremely expensive.<sup>70</sup> Guarding property from theft or invasion is also very costly. Simultaneously, the small farmer's income is less, given that the price of legal products is so much lower than that of coca.<sup>71</sup>

Second, small farmers can get credit only if they have title or at least a certificate of possession. To get a certificate of possession, the farmer must have held the land for at least a year—a time during which he is ineligible for credit. The obvious solution is to plant coca to finance this year of ineligibility.<sup>72</sup>

In theory, AID set up the PEAH to finance agricultural loans through the *Banco Agrario* and promote alternatives to coca production.<sup>73</sup> "Unfortunately, while most of the loans appear to support elimination of the cocaine in the jungle, they are actually used for

planting coca rather than for crop substitution. The peasants' chances of complying with their financial obligations to the lending institution cannot be met with cash returns from their crops of corn, rice and cacao. To mask their real agricultural activities, they plant rice or oil palm trees, or they raise cattle on land included in the affidavit. Legal cash-crop farmers, as well as coca planters, have many good 'commonsense' reasons for either subsidizing their economy or depending entirely on illegal coca cultivation. <sup>74</sup>

Exclusive producers of coca have abused the credit system in the past. Coca growers obtained credit not because they needed to finance agricultural activities, but to (1) create the appearance that they were legitimate farmers and to avoid police harassment,<sup>75</sup> and (2) to purchase cars and other nonagricultural luxury items.<sup>76</sup>

#### 4. ENVIRONMENTAL EFFECTS OF COCA PRODUCTION

In recent years, there has been a severe loss of natural resources in the selva.<sup>77</sup> Generally, we find coca expansion in places with little access and higher altitude. This results in heavy erosion and flooding<sup>78</sup> as well as alarming deforestation.<sup>79</sup> Further, coca production causes water pollution since it involves heavy use of insecticides, herbicides, and fertilizers,<sup>80</sup> and the chemicals used to process the coca leaf are themselves often dumped into the rivers.<sup>81</sup>

When we aggregate the coca production and look at the entire Huallaga region, we see dramatic environmental damage from coca paste production alone. The extremely toxic contamination generated in the valley includes: 57 million liters of kerosene, 32 million liters of sulfuric acid, 16 metric tons of active lime, 3,200 metric tons of carbon, 16,000 metric tons of hygienic paper, 6.4 million liters of acetone, and 6.4 million liters of toluene.<sup>82</sup>

In the UHV, those without legal title have engaged in deforestation at a rate of 2.72 hectares annually per cultivator. This rate is alarmingly high in contrast to legal titleholders who are fixed in location.<sup>83</sup> In other words, land squatters are characterized by a continual movement or migration to new, virgin lands.<sup>84</sup> The high profit from coca is the fundamental cause of why the titling of land in the UHV has not promoted greater use of titled land on the valley floor.<sup>85</sup>

Agricultural colonists, with formal titles, engage in deforestation at a much lower rate, since their products are overwhelmingly of a permanent nature. Coca production (performed by persons usually without title) is often a short-term operation.<sup>86</sup> Unfortunately, the expansion of the coca economy has led to a tremendous decrease in the development of technology for planting legal, alternative crops.<sup>87</sup> This may lead to increased environmental destruction on these untitled lands.

President Fujimori has stated, "According to the FAO, between 1985 and 1989, the annual pace of deforestation in Peru increased 75%. This period coincides with the decrease in legal agricultural crops and the significant increase in the coca crop. Currently some 350,000 hectares are deforested per year."<sup>88</sup>

Coca is grown mainly in forestlands, not in the agricultural lands. The forestlands are extremely fragile. If they are to be protected, the government should not grant title, for a title would be construed as a right to use, a right to access, and a legitimization of the coca production.<sup>89</sup>

In addition, people from the sierra do not value the forestlands and therefore would not want title to property in forestal areas,<sup>90</sup> presumably because they are valuable only for

forestry (and, of course, coca). Farmers prefer cleared land, since it is more useful and therefore more valuable. Replanting trees on land makes it less serviceable to these sierra residents.<sup>91</sup> Therefore, even if the lands were titled, this form of security would be no guarantee that local inhabitants would engage in the labor necessary to replant the trees.

The tragedy of the Alto Huallaga is that to detain deforestation, coca expansion must be restricted, and to reduce coca production not only must the economic crisis be solved, but also it is essential that Sendero be controlled. Consequently, deforestation has an unquestionable political element.<sup>92</sup>

## 5. PRESENT LAND TENURE SITUATION OF THE UHV

One of the basic mechanisms to guarantee a process of integral growth and increase the productivity of natural resources and the well-being of the population is the regularization and titling of land rights, keeping in mind a realistic analysis of the renewable natural resource base.<sup>93</sup> In the UHV, this regularization process involves cartographic information, floor soil studies, and land classification. Land is classified according to most productive use, forestal inventory, recognition of the potentials of natural resources like flora and fauna, and analysis of available infrastructure.<sup>94</sup>

The extent of land formalization in the UHV has been impressive.<sup>95</sup> Aerial photography has been used extensively<sup>96</sup> with surveys of the land itself.<sup>97</sup> According to data from the Peruvian Ministry of Agriculture, nearly all the agricultural land in the UHV has already been titled or granted "certificates of possession."<sup>98</sup> These data show that before 1965, 1,054 titles had been granted in the region.<sup>99</sup> Under the subsequent colonization programs for Tingo María, Tocache, and Campanilla, an additional 4,654 lots were titled.

Interestingly, 35 percent of landholders obtained their land from a previously titled owner. The remainder, 65 percent, received their title by indirect means. An example of an indirect method would be a farmer who moved into abandoned or state-owned property and then, after completing formal requisites, obtained title.

### AGRARIAN REFORM LEGISLATION UNTIL AUGUST 1991

Agrarian reform legislation requires that in order to maintain title, the farmer must continue in possession and use of the land.<sup>100</sup> Otherwise, the land reverts to state ownership.<sup>101</sup>

A farmer loses title if the land is abandoned for three consecutive years.<sup>102</sup> The three-year period will be presumed to have passed if, a year after an inspection by a judicial official, the land remains in disuse, or, to the contrary, the owner can show use during the first two years.<sup>103</sup> The original farmer also can lose title if another farmer begins to use abandoned land and the original owner does not begin action to remove the trespasser for a one-year period.<sup>104</sup> Other provisions sanction antisocial behavior with loss of title, including actions of abandonment, blocking of land markets, and fragmentation of parcels.<sup>105</sup>

Despite this provision, the government allows farmers to abandon their property without risk of loss, provided they do so out of fear of insecurity. The army is giving out *permisos* to document that the land is in fact not abandoned.<sup>106</sup>

Agrarian reform titles are not absolute. They require, among other things, that the farmer: work the land;<sup>107</sup> live on or near the land;<sup>108</sup> and not sell, mortgage, or transfer the land without completing certain formal prerequisites with the government.<sup>109</sup> Further, the titleholder may not grow coca.<sup>110</sup> Rental arrangements are also generally prohibited on agrarian reform land.<sup>111</sup>

The minimum size required to title a lot is 10 hectares.<sup>112</sup> *Sendero Luminoso*, acting as a de facto government, has begun to issue land certificates of its own. Unfortunately, *Sendero* is allowing for the subdivision of land, thereby increasing the problems associated with *minifundios* and easing coca production.<sup>113</sup>

Six procedures to regularize or clarify land tenancy are legally available: (1) "Extinction of Dominion" is a process whereby title is removed when the state has not approved the title and the owner has not taken immediate possession.<sup>114</sup> It involves 8 legal steps and lawfully cannot be completed in less than 163 days.<sup>115</sup> The method can be used by current possessors of land to end the rights of formal titleholders. (2) "Termination of Title" entails taking away title when the conditions of the title have not been complied with by the beneficiary. This process cannot be legally completed in less than 163 calendar days.<sup>116</sup> This procedure also can be used by current possessors of land to extinguish the rights of formal titleholders. (3) "Declaration of Ownership" is available and functions like an action to clear title.<sup>117</sup> (4) "Rescission of an Adjudication Contract" occurs when the owner abandons a parcel; tries to cede, sell, or transfer the parcel; fails to use the land within 12 months of receiving it; or cultivates coca. This procedure takes at least 145 days to complete and involves at least 10 legal steps.<sup>118</sup> The government often will use this maneuver to free up land not in use and transfer it to another beneficiary. (5) "Qualification as a Beneficiary for Land Adjudication" authorizes a *campesino* for the titling program. It legally takes 40 days and 7 steps.<sup>119</sup> (6) "Issuance of Contracts of Adjudicated Free Titles" involves a minimum of 41 days legally and 4 discrete steps.<sup>120</sup> These lawfully imposed, bureaucratic delays are some evidence that titling and other normal legal procedures could be difficult and expensive.

The Ministry of Agriculture has completed sample studies to document how the procedures work. These studies involved the processing of an actual case through various steps. The case was selected at random. Since it is only one case and not a sample of cases, it should be viewed as illustrative, not determinative of the actual time needed to process actions through the formal system.<sup>121</sup> The Ministry found even more bureaucratic delays than those imposed by law.

The Ministry of Agriculture study found that: (1) Termination of Title took 594 calendar days to complete, (2) Rescission of Adjudication Contract took 57 months (1,729 days), and (3) Qualification as a Beneficiary for Land Adjudication took 151 days.<sup>122</sup>

Titles are important because they allow the Department of Agriculture to have control over ownership rights. They also provide for an inventory of agriculture and growers.<sup>123</sup> Thus, the bureaucracy is of great concern. Surprisingly, however, the data registered now

...ly current.<sup>124</sup> Apparently, to get a good picture of what is going on, it is not fair to look at how the formal process works in theory or in practice, but how registration in fact takes place.

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The truth is that the formal process has been adapted to local conditions, and it is working well. For example, some parcels with small amounts of coca have been allowed to be titled. This is done only where coca production is limited to 5-10 percent of the farmer's land and the land is located in an agricultural zone, not in a forestal zone.<sup>125</sup> The government requires examiners to note the crops being grown. Finding coca present under these conditions, examiners often simply mark the "other crops" box on the form.<sup>126</sup> A title is not denied because a farmer grows a small amount of coca, despite legislation to the contrary.<sup>127</sup>

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The Ministry of Agriculture has found that the market for land is very active. Sometimes, land just registered was found to be once again abandoned.<sup>128</sup> Thus, land is constantly changing hands. A continuous effort is needed to keep land registries accurate in a dynamic climate. This has been done. Complying with all formalities may actually slow down a market which has adapted well.<sup>129</sup>

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To adapt the system to their needs, local *campesinos* have used the "certificate of possession" as a quasi-title. The certificate can be transferred (sold) in an inexpensive legal process that takes less than a week and can be completed in the local community, using the simplified, informal process.<sup>130</sup> Thus, it appears that the delays associated with land titling in procedural areas are not nearly as important to the landholder.<sup>131</sup>

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As stated above, small farmers are ineligible for credit until they have a "certificate of possession." This in turn requires that they be in control of a plot for at least a year. Some farmers grow coca to get by during this period. One solution to this phenomenon would be to grant a "temporary" certificate of possession, allowing the farmer immediate access to credit.<sup>132</sup>

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Use rights have sometimes been granted for cultivation in fragile areas. This allows *campesinos* the right to cut trees, but not grow coca.<sup>133</sup> The approach allows the government to permit use of the land for legitimate purposes, without allowing environmental damage or encouraging coca.

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There are several disincentives to property registration besides the delays. People may be afraid of the government after years of repression and anarchy. Coca growers want to cultivate forbidden crops where they are not allowed. Thus, they will not register—they prefer to be unknown. Interestingly, lands suitable for coca are not as actively traded. They are more desirable and are not transferred.<sup>134</sup>



## THE NEW AGRARIAN REFORM LAW

In August 1991, President Fujimori issued a new agrarian reform law. The law attempts to create a uninhibited land market. This new legislation liberalizes farm credit and agricultural property ownership, effectively dismantling the two-decades-old agrarian reform. With food production levels dropping and farm credit almost nonexistent, the law permits anyone to own farm property (including a corporation).

The law allows the buying, selling, inheriting, mortgaging, and renting of land, including agrarian reform land.<sup>135</sup> No authorizations for land transfer are required.<sup>136</sup> Land has become, in a legal sense, a commercial asset, though size restrictions remain.<sup>137</sup>

The new legislation omits to mention how state and abandoned land can be distributed to beneficiaries.<sup>138</sup> It does state that beneficiaries must take additional steps to solicit land, including obtaining a performance bond.<sup>139</sup> This requirement seems entirely inappropriate for landless or land-poor populations.

The law does not refer to the *sierra*, community, or *campesino* groups when establishing size limits. Instead, it introduces several elements which cut against the disadvantaged. Unutilized land is given to the state rather than to indigenous groups.<sup>140</sup> The law specifically excludes native and *campesino* groups from access to credit through mortgages.<sup>141</sup> Article 163 of the Constitution also states that native and *campesino* community lands are inalienable and unmortgageable. Unfortunately, this exclusion applies to about a third of rural plots, or some 600,000 communal smallholders.

Administrative rules allow for credit to landholders of fewer than 500 hectares in most cases.<sup>142</sup> Still, since roughly 90 percent of smallholders are not registered, mortgage lending remains inaccessible.

The decree permits sales only in the formal sector, as under prior law. This means that a sale is recognized only if recorded. But the decree allows unrestricted sale, transfer, mortgage, and titling only for properties larger than 3 hectares. Many landholders are well under this limit; this represents 30 percent of all rural properties and the majority of the property holders. Transition provisions, Supreme Decree 018-91-AG (published 5 May 1991) and Art. 16 of Legislative Decree 653 contemplate the titling of landholdings smaller than 3 hectares which were in existence on the date of emission of the new law, that is, 3 May 1991. In short, they recognize the existence of such plots. Yet, the law will not permit registration of lots less than 3 hectares which come into being after the cutoff date. Presumably, the government assumes that one chance to register small parcels will deter property owners from further parcelization.

New procedures for simplifying parcelization of agrarian associations and cooperatives were subsequently announced. These allow organizations to register land to their members.

Unfortunately, old restrictions and red tape reappear, often generating prohibitive transfer costs.

It is unclear what impact the legislation will have on women. In Peru, the International Fund for Agricultural Development (IFAD) has found that women perform agricultural work in 86 percent of rural households.<sup>143</sup>

In theory, access to mortgages will increase the availability of credit, resulting in greater investment. As investment increases, productivity should increase.

Art. 159 (1 and 2) of the Constitution prohibits *latifundios* and sets forth to eliminate *minifundios* gradually. However, the new maximum size restriction may turn out to be ineffectual. Size limitations are based on a per-person hectareage. It may be possible for individuals to form companies which have no "per person" limit. After all, the law states that corporations, too, may own land. This reverses Art. 157 of the old agrarian reform law that contemplated only individual ownership.

The new law permits land rental, reversing prior law. This liberalization is important for several reasons. First, it provides access to land that might otherwise not be available for cultivation. Second, it eliminates a barrier to the land market economy, to which rental is an important element. Third, it allows for the exploitation of land so that it is not taken away under provisions for "abandonedment." Still, liberalization of rental controls was not complete. The Decree states that rental is allowed only in specified cases, and plots under 3 hectares in size cannot be rented.

The law could have potentially unfortunate environmental effects. It repeals Art. 71 of the Environment and Natural Resources Code,<sup>144</sup> which prohibited development activities that take advantage of nonrenewable energy and natural resources. The new law also opens these lands to the construction of oil and gas pipelines as well as mining and petroleum installations.<sup>145</sup>

Interestingly, the new law was never passed by the legislature: it is really a presidential decree made to look like a legislative product. The president exercised his power to issue decrees with regard to private sector investment (although everyone calls this the "new agrarian reform law," its formal title is the "law for the promotion of investment in the agrarian sector"). In effect, President Fujimori has used powers to regulate investment to legislate on land and environmental policy. This raises constitutional problems.

## 6. ANALYSIS OF POLICY TO COMBAT ENVIRONMENTAL DEGRADATION, COCA, NARCOTERRORISM, AND POVERTY

It should be recognized that legal reform is based on policy decisions, which in turn are based on perceptions of the problem. In the UHV, researchers have gathered little empirical data because of violence in the region. Thus, the problem has usually been defined in a theoretical way rather than with recourse to data, which themselves, when available, are often perceived to be inaccurate.<sup>146</sup>

Based on the information that is available, policymakers are debating several options: legalization, repression, purchasing all production with eradication, the ILD titling theory, and a multifaceted approach. Each is discussed and evaluated below.

### LEGALIZATION OF PRODUCTION

Several authors have suggested legalization of coca and cocaine.<sup>147</sup> This approach is not now a serious consideration in US policy.

### REPRESSION

The Anti-Drug Abuse Act of 1986 promotes an increased military involvement domestically and internationally to enforce US antidrug legislation.<sup>148</sup> Probably the most celebrated case involving military operations in the drug war was the case of Manuel Noriega. The US Drug Enforcement Administration (DEA) arrested Noriega on drug-trafficking indictments by the US invasion of Panama.

There is a perception of corruption among the Peruvian military, police, and judiciary.<sup>149</sup> A US Congressional staff report concluded that the corrupt judicial and penal systems in Peru made prosecuting and sentencing traffickers difficult.<sup>150</sup> "All impartial observers agree that the Peruvian Investigative Police (PIP), who are responsible for investigating all narcotics cases, is weakened by widespread corruption. This obviously limits the effectiveness of narcotics control actions in Peru."<sup>151</sup>

One study found that "the Peruvian military has been sent into . . . the Upper Huallaga, to control guerrilla activity. This has had the ironic effect of deterring narcotics control, for several reasons. First, while the military is occupying the area, the narcotics police (UMOPAR) has been confined to its barracks, with only occasional exceptions. Second, the military does not view narcotics control as part of its mandate. Third, there are disturb-

ing—though unconfirmed—reports that the military has actually collaborated with drug traffickers to identify guerrilla strongholds."<sup>152</sup>

According to another author, the military's unofficial alliance with narcotraffickers was effective at removing *Sendero*, but at the cost of human rights. As human rights abuses mounted, public opinion forced the military to back off from its pursuit of *Sendero Luminoso*.<sup>153</sup>

As the military backed off, this left the valley to the narcotraffickers. The traffickers benefited from the inaction of the military and the absence of the *Sendero* insurgents. Coca production began in full pace, leading to accelerated deforestation rates.<sup>154</sup> With increased production and no political competition, narcotraffickers then began a reign of terror to lower the prices of coca leaves, increasing the profit margins for the Colombian cartels. This initiative backfired, however, as residents sought protection from the narcotraffickers, leading to a return to favor of *Sendero Luminoso* as the people's protector. The insurgency was back.<sup>155</sup>

Neither the military nor the police are willing to enter most of the UHV.<sup>156</sup> Yet, narcotraffickers are not hard to locate. They broadcast their coming and going on short-wave radios to which officials in Lima can listen.<sup>157</sup> The narcotraffickers' operations are not very clandestine. And Peru utilizes no system of radar to intercept their aircraft.

The military have been criticized for not bombing airstrips that are clearly visible. AID has also been censured for rebuilding roads that could be used by narcotraffickers as landing strips. Yet, the pilots are good enough in this region to land on short dirt strips even with pot holes.<sup>158</sup> *Sendero* and the military have tried unsuccessfully to discourage narcotraffickers with road destruction.<sup>159</sup> Annual rains which destroy roads and prevent automobile traffic have not daunted drug trafficking either. Thus, it is impossible to stop air flights into the area simply by destroying airstrips. Indeed, destruction of airports and roads, while not deterring coca traffickers, will discourage legitimate business and hurt the poor who need the transportation infrastructure. Perhaps lack of coordination between Peruvian police and military can be understood in part in the United States by examining the analogous situation of US armed forces. Federal law often imposes criminal sanctions against the use of the military for civilian law enforcement.<sup>160</sup>

Constitutional safeguards in Peru have not worked effectively to guard against human rights abuses as the military and police fight the war against drugs and insurgency. This has been due mainly to "institutional failures and the abdication of civilian political, administrative, and juridical authority over the military and its counterinsurgency campaign."<sup>161</sup> As a result, the counterinsurgency effort has weakened the constitutional order of Peru. This has created a state within a state where the military exercises de facto control, protected from civilian institutions or political regulation.<sup>162</sup> We may wonder whether it is possible to fight *Sendero Luminoso* and the narcotraffickers in a military fashion while respecting human rights. Certainly this issue has been raised in the Peruvian debate.<sup>163</sup>

Congressional spending on repression as a weapon in the drug war has been great. Section 4004 of the Anti-Drug Abuse Act of 1986 allocated \$277.5 million for drug interdiction equipment and aircraft alone for the Department of Defense. The Defense Department has received other funds as well for other aspects of the drug war. And Customs and the Justice Department received funds for aircraft of their own. In contrast, all demand reduction activities received \$214 million under Section 4002 of the Act. From 1987 to 1989, military assistance to Colombia jumped from nearly zero to close to half a billion dollars.<sup>164</sup>

Assuming the crop could be eliminated in the UHV, this alone would probably not solve the problem of coca production. Growers could move to more remote areas, further damaging the environment.<sup>165</sup> When counternarcotics efforts do stifle a drug trafficker, another trafficker takes the former's place due to the high profitability of the business. Thus, repression will have limited successes in its implementation, but it, by itself, will not resolve the issue.

#### **PURCHASING ALL PRODUCTION, WITH ERADICATION**

The Front for the Defense of Coca Eradication for the Upper Huallaga, on 23 January 1991, presented a proposal to the Agency for International Development.<sup>166</sup> That proposal called for the United States and other coca-consuming countries to purchase all coca crops—guarantee a market for coca—and then destroy the coca purchased. As the coca bushes aged, they would not be replaced. This time lag would presumably allow local producers to use coca revenue to finance the changeover to legal crops, and no further coca would be planted. For each hectare eradicated, the grower would receive \$6,000. The proposal estimated that the cost of the entire project would be \$1.25 billion.

The proposal, in essence, is one of progressive eradication, with subsidies. It is not dissimilar to the system of repression, except that participation is said to be economically desired rather than imposed. This same approach was tried earlier in the 1980s with ENACO (*Empresa Nacional de Coca*, the National Coca Corporation), with unsuccessful results.<sup>167</sup> Under the ENACO scheme, coca production was regulated and registered. All production was supposed to be sold to the corporation, and no new plants were to be planted. As the old plants died, they would be replaced by alternative crops. Yet, during ENACO experiment, coca production continued to rise.

Peru was the first country to conduct a drug eradication effort (at least on a limited scale) in coordination with a development assistance program.<sup>168</sup> And the government has acted to make coca cultivation illegal.<sup>169</sup> In 1985, a Congressional report found:

Although the Peruvian eradication agency, CORAH, has eradicated some 3,000 hectares of coca this year, there are no records to indicate exactly where these fields were located or to whom they belonged, nor is there any assurance that these fields have not been replanted . . . . The eradication effort has become precarious since the

military entered the Huallaga and confined UMOPAR to its barracks. Previously, UMOPAR units accompanied CORAH workers on their eradication trips: now, CORAH personnel must face angry coca-growers, drug traffickers and guerrillas unarmed and with no such protection.<sup>170</sup>

In 1989, the DEA experimented with fumigating certain limited areas with "spike" (Tebuthiron) to eradicate coca plants. Although the action was an experiment, it led to distrust of the United States in the UHV, especially among coca growers and the narco-traffickers. This fear translated into violence. Ten policemen and two civilians were killed in retaliation in March 1989.<sup>171</sup> All antinarcotics activities then had to be suspended until the next September due to lack of security.<sup>172</sup>

The eradication effort has also been blamed for accelerating the rate of deforestation. Attempts at elimination in the UHV began near Tingo María. This forced coca growers northward into new lands. The dynamic was repeated as the eradication program followed the coca growers north through the valley, and the cultivators have also started to invade national forest reserves.<sup>173</sup>

Political reality also limits the effectiveness of eradication. With *Sendero Luminoso*, a group which openly defends coca growers, such efforts in the region will continue to be problematic.

Interestingly, a de facto eradication of coca is under way. A fungus, resulting from overuse and poor management of fertilizer and pesticides, has been attacking the coca bushes and killing them.<sup>174</sup> Some *campesinos* erroneously blame the Agency for International Development and the Drug Enforcement Agency for inventing the fungus, drawing on experience with "spike."<sup>175</sup>

## THE ILD TITLING THEORY

The ILD theory advocates property rights as the key to economic enfranchisement of the poor.<sup>176</sup> To achieve secure property rights, the ILD has created a *hipoteca popular* (popular mortgage) which includes a (1) property and possession registry, (2) right of possession and use, and (3) credit insurance.<sup>177</sup> Ambassador James H. Michel has said, "The ILD's greatest contribution has been and continues to be thinking about and finding practical ways to give effect to the role of the individual, to the entrepreneurial energy within the informal sector of the economy and to citizen participation in rulemaking and economic development."<sup>178</sup> In general, the ILD ideas are very well received.<sup>179</sup>

Hernando de Soto, president of the ILD, wishes to expand the institute's rural titling program to the UHV to stop coca production.<sup>180</sup> He advocates three principles: (1) we should differentiate between common growers of coca and the narco-traffickers;<sup>181</sup> (2) the Peruvian people will support efforts to stop the funding of terrorism with drug money and the

corruption of the Peruvian state;<sup>182</sup> and (3) institutional reforms are needed in the coca-growing regions, including secure property rights.<sup>183</sup>

More specifically, the ILD, and President Fujimori have recommended the following for the UHV:

1. **Create secure property rights by giving farmers title to their land through the ILD-developed Rural Property Registry which can be easily extended to the coca growing areas. Fact: Only 10% of rural Peru is currently titled.**
2. **Deregulate the markets for other crops so that Peruvian farmers can produce and sell alternative crops, competitively. Fact: It takes 45 days to go through the 36 administrative steps at 7 agencies to export an alternative crop.**
3. **Establish democratic institutions to foster citizen participation in and feedback to the rulemaking process, thus allowing the law to reflect, rather than restrict, the will of the people.<sup>184</sup>**

Titling land, the ILD notes, will lead to decreased popularity of *Sendero Luminoso*. The ILD points out that in prior titling projects in Peru, the new landholders became conservative in their political views after becoming property owners; insurgents lost local support. "*Sendero* is fragile," the ILD asserts.<sup>185</sup> Yet, the immediate prospects for implementation of an ILD plan are bleak. The ILD will not begin any program in the UHV until the region is clear of *Sendero Luminoso*.<sup>186</sup> Thus, it is not constructive to list titling as a means to deter insurgency if the ILD will not start its plan until *Sendero* leaves.

Even if the ILD went into the UHV with its titling efforts, it is doubtful whether they would have any effect on *Sendero Luminoso*. The population in the UHV already holds property. Landowners have between 10 and 30 hectares a piece, making them an affluent and conservative group by national standards. As a result, they do not particularly support *Sendero Luminoso* in the first place: *Sendero* is there not out of popular support, but to tax coca production to finance its operations in other areas of Peru where it does have a large base of support.<sup>187</sup> In the ILD urban-titling case, "titles" were given to previously landless persons who supported the urban guerrilla group MRTA, most popular among the poor. The urban case and the UHV are incomparable.

The ILD notes that as *campesinos* get titles, they will have access to credit. This will enable them to finance crop substitutions.<sup>188</sup> This view ignores four important facts about the UHV: (1) Titles are not needed to access the Agrarian Reform Bank, only certificates of possession, which nearly all *campesinos* already have. (2) The Agrarian Reform Bank is nearly bankrupt. It has no money to lend even to those with title. With insecurity in the region, it is doubtful that any private capital will flow in either. (3) Coca production provides much easier financing than traditional credit. (4) Lack of investment is not due to lack of credit—it is driven by lack of physical security and absence of economically viable alternatives to coca.

The ILD maintains that titling does not functionally exist in the UHV. Aerial mapping will be necessary along with cadastres, it contends. The ILD suggests creating a "stream-lined" registry system which will involve far fewer bureaucratic steps and allow people to get title to land they currently possess.<sup>189</sup> Exact, fully detailed maps are not needed, according to the ILD. Rather, the registration process could be "informalized" so that only "essential" data and steps are required.<sup>190</sup>

Contrary to ILD's supposition, titling, aerial photography, and mapping do exist in the UHV and are relatively up-to-date and working well. It may be true that as little as 10 percent of the rural land in Peru is titled. But in the UHV, nearly all agricultural land is titled already. An additional, less exact system would create legal uncertainty over which system was the correct one. It also would provide less information to the users.

The ILD "registry" in urban areas is a parallel registry—it is not the official government record book.<sup>191</sup> The parallel registry is combined with a form of title insurance for the title recipient<sup>192</sup> that often is more than adequate for the needs of an urban dweller. The ILD does not work with existing registries, which it views as cumbersome, bureaucratic, and expensive. Instead, it makes a "fresh" start with a new record book, which is not a replacement for the old, but a second, alternative registry. In the UHV, this would be a duplication of effort.

The ILD suggests that restrictions to land rights be eliminated, allowing the owner to sell and partition the land.<sup>193</sup> The reality of the UHV is that landowners already have at their disposal a legal system which allows for the transfer of land. With respect to the ability to partition land, the 10-hectare limitation was imposed to prevent *minifundios* (excessively small farms). Smaller parcels are viable only for coca production. Thus, partition of lands smaller than 10 hectares may encourage coca cultivation.

Even assuming that elimination of restrictions to land under the ILD hypothesis would stimulate the land market, is this desirable? The more active the land market, the more likely resources will be allocated to their most economically efficient use.<sup>194</sup> In the UHV, this means coca production. The ILD approach could be construed as one that promotes use of land for growing coca.

The ILD would not give title to *campesinos* holding land in fragile areas. Instead, it would give them title to alternative lands which are appropriate for the farming of legal crops.<sup>195</sup> This assumes that there is unclaimed, "free" land available for distribution. Unfortunately, this is not so. Data affirm that there is almost no available land in the UHV.<sup>196</sup> New land could presumably be created by parceling existing plots. But this would lead to diseconomies of scale and ever-decreasing sizes of lots, or *minifundios*.

Relocation of coca growers to valley agricultural lands also assumes that the coca growers do not already have land in the valley. This is not the case. Some coca growers may have abandoned land in the fertile valleys. They climb the hillsides in search of land



better suited to coca. If denied access to the hillside land, such growers could return to their original land and would not need additional compensation.

Relocation schemes have other undesirable effects. For example, originally some farmers in the UHV refused to produce coca. Because of insecurity in the region, lack of educational opportunities for their children, or possibly deficiency of infrastructure, the farmers moved their families to nearby towns. Consequently, they could not protect their lands. Instead, they left them fallow or simply planted a crop and returned periodically for maintenance and eventual harvest.<sup>197</sup>

In the absence of some of these noncoca-producing farmers, *Sendero* has sent in an *afiliado* (associate) to occupy the land, steal the crops, and plant coca. Should we now "normalize" the tenancy, giving the land to the current occupant? This seems to violate everyone's sense of justice and would be acceptable only to *Sendero Luminoso*.

The ILD's mention of debureaucratization is well taken in Peru, where overregulation has inhibited many businesses. Yet, by noting the legal steps required to export, the ILD creates the illusion that the UHV would be capable of exporting were it not for the bureaucratic titling and regulatory processes. Yet, even if all *campesinos* had the alternative ILD title today and all export restrictions were lifted, the producers would not be able to export. They lack infrastructure, security, credit, and technology. And exporting makes little business sense when the domestic market needs servicing. Thus, the ILD-Fujimori observation on market and export overregulation would appear to have little relevance to the reality of the region.

Robert Litan, Senior Fellow at the Brookings Institution, has been critical of the ILD proposal's ability to deter coca production:

[L]et us suppose that we provide property rights and the program takes off. What do economics tell you about what will happen? All things being equal, as some people leave coca, the supply of coca will diminish and the price of coca will rise. What are conditions of entry into coca growing? I suspect there is relatively free entry, requiring a peasant only to cut down forests and plant the crop. Assuming there is a relatively limitless supply of land on which to grow coca, what would happen in a simplified world is that as some leave coca, others will enter. At the end of the day, the new equilibrium would probably involve a lot more legitimate crops being grown if we solve all the impediments de Soto has talked about, but the same amount of coca. We will have improved agriculture in Peru, which is a net plus, but the drug problem will not be solved. There are some variables, of course. If the marginal costs of going into coca go up, this will restrain entry. I suspect, though, that the only way to get people out of coca in Peru are the old remedies we all know about, i.e., making it more risky to be in that business through increased law enforcement. In summary, while it seems to me that the Fujimori initiative is good, I am skeptical it will solve the drug problem without the other measures I have mentioned.<sup>198</sup>

Another strong point of ILD work in the urban areas has been its participation with so-called "base" (community) groups. This has a strong "democratic" appeal. One problem in the UHV, however, is identifying the base group: Who is it? Sometimes the base leaders represent the views of only some inhabitants, not all. Some base leaders have been accused of corruption, and in the UHV, some may be *senderistas*.<sup>199</sup>

Coca growers are motivated by the high profits associated with coca production.<sup>200</sup> De Soto states: "Only a very small area of the land which could be used for coca is actually cultivated. The idea is to convert the whole area to private property, but property that is controlled and where offenders can be punished."<sup>201</sup> Yet, they will not abandon lucrative coca production simply because "policy" has now made production of other crops a bit better. Instead, **titling of coca-producing lands, in addition to the grave environmental effects, may lend coca production a stamp of legitimacy and official recognition.**

It is unquestionable that the ILD has met success in the projects it has undertaken in urban Lima. The key to its positive reception in urban area seems to be its efforts to include the people in decision-making and to reduce the often burdensome bureaucracy. The UHV needs a more detailed, critical look. Still, with the ILD's urban experience, the institute could make important contributions in the areas of democratization and debureaucratization in the UHV. This in turn would stimulate the natural economic abilities of the valley. In this way, the ILD's strengths could be tapped while capitalizing on existing structures.

## THE MULTIFACETED ECONOMIC APPROACH

A multifaceted economic approach is fundamentally the one being used today to deal with coca production. Its ultimate goal is to make coca-growing uneconomic. To do so, it incorporates incentives for alternative production (increased infrastructure, technical assistance, education, etc.) along with disincentives to growing coca (eradication, repression, illegality, etc.), and attempts to reduce demand at home ("just say no" education plans, new search and seizure laws, drug testing, etc.).

The ILD approach advocates an improvement in titling. There certainly are opportunities to improve the Peruvian property registry system. Yet, this work should be done **within** the present structure and not **outside** it. Further, it should be done because it will impact economic productivity, not because it will decrease coca production. And it will increase economic productivity only if it is one element of a broader package that addresses other bottlenecks to development. These bottlenecks include availability of credit, adequate technology and infrastructure (roads, electricity, phones), regional security, access to markets, and so on. Only then can the government protect the environment and discourage coca production.

The Department of Agriculture already has developed a new strategy for titling properties in the UHV in a faster, more efficient manner. Alas, to date, it has not been

implemented.<sup>202</sup> The ILD, with its populist and deregulatory approach, could make an invaluable contribution to modernizing the property registries in the UHV. Registration needs to be faster and simpler. It needs to be decentralized. **The ILD should work with existing law and registry systems, and the Department of Agriculture strategy, to improve the current legal framework, making the system more agile.**

Today, transport and security costs make the UHV unprofitable for agricultural production. A box of 18 papayas in the UHV costs 3,500 intis. In Lima, papaya costs 750 intis per kilo, and each papaya weighs about 2 kilos. If the UHV had a safe and open road connecting it to Lima, *campesinos* in the valley could sell their produce. What the UHV needs is a simple uninterrupted road, not a superhighway.<sup>203</sup>

By combining repression, market stimulation, infrastructure development, education, and eradication with reform of titling and land registration, coca production could be further discouraged.

Finally, in analyzing this problem it would be intellectually dishonest to disregard the driving factor involved with coca production: demand.<sup>204</sup> Coca was produced for thousands of years without abuse, until the 1800s, when cocaine was introduced to Europe. Since then, coca has been in demand, and the supply has risen to meet that demand. The solutions above are designed to make alternatives to coca production less expensive and more lucrative to growers. Steps are being taken in consuming countries to discourage demand. Yet, while demand remains high, any measures are likely to prove futile.

## 7. CONCLUSIONS AND RECOMMENDATIONS

The most viable approach to deterring coca production is not titling. This method advocated by ILD does not consider that coca producers neither want nor need title, and that they are not motivated by legal formality but by economic interest. Further, the ILD plan does not properly account for: (1) titling and registration efforts already in place; (2) the dynamic of land markets and coca production in the region; and (3) the complex role of *Sendero Luminoso*.

A multifaceted economic approach (consisting at present of repression, eradication, economic incentives, infrastructure, land titling, and efforts to curb demand) is probably still the best way to deter illicit production. To achieve this goal, however, will take continued, comprehensive, and expensive efforts. Among these should be a package of incentives for the UHV. In the meantime, all the best attempts to discourage coca production might still fail if demand continues to drive the economic situation toward maintaining supply.

As we work to diminish the supply and demand for coca, we should continue to explore other options for combating the coca problem. The ILD titling notion, while an ingenious and positive contribution, is not sufficient to deal with the complexity of the UHV. Yet, debate should be encouraged as we struggle against the enemy in the drug war. To succeed, further study and dedication will be needed, and solutions will not be easy.

## ENDNOTES

1. See, for example, Richard L. Fricker, "The Abello Conspiracy," *ABA J.*, Dec. 1990, at 55. President Bush is not the first to declare "war" on drugs. President Nixon did so in 1973. See Jerald W. Cloyd, *Drugs and Information Control* 88 (1982) (hereinafter referred to as Cloyd). The Harrison Act, passed in 1914, in all likelihood actually began the effort. See Cloyd at 55.

2. Executive Order, 5 Dec. 1990.

3. Convenio entre los Estados Unidos de América y el Perú sobre la Política de Control de Drogas y Desarrollo Alternativo, entered into 14 May 1991.

4. Prepared Statement of James H. Michel, Assistant Administrator, Latin America and the Caribbean Bureau, Agency for International Development, before the Subcommittee on Foreign Operations, Committee on Appropriations, US Senate, Washington, DC, 23 April 1991.

5. Latin America and Caribbean Bureau Objectives, Article III-A (1990).

6. Fred Strasser, "Crime Has No Borders, So Countries Close Ranks," 12 *N.L.J.* 1 (No. 8, 30 Oct. 1989).

7. The most direct statement of the US strategy may be the Anti-Drug Abuse Act of 1986, Pub. L. No. 99-570, Section 2005, 100 Stat. 3207, 61-63 (1986).

8. See, for example, *Skinner v. Railway Labor Executives' Association*, 489 US 602, 103 L.Ed. 2d 639, 109 S.Ct. 1402 (1989), which upheld drug testing of railroad employees to discourage their consumption of drugs.

9. A United Nations Convention, adopted in December 1988, regarding Illicit Traffic in Narcotic Drugs and Psychotropic Substances, has led to new US-style money-laundering laws in many countries.

10. For example, Washington's Mayor Marion Barry was arrested on 18 January 1990 on drug charges. Another celebrated case of official corruption is the case of Manuel Noriega.

11. The search and seizure laws are a good example of where the influence of antinarcotic policy has changed privacy law. See, for example, *Alabama v. Rose White*, 496 US \_\_\_, 110 L.Ed. 2d 301, 110 S.Ct. \_\_\_ (1990); *California v. Hodari D.*, 499 US \_\_\_, 113 L.Ed. 2d 690, 111 S.Ct. \_\_\_ (1991). The impact is probably best seen in cases involving airports, such as *United States v. Sokolow*, 490 US 1, 104 L.Ed. 2d 1, 109 S.Ct. 1581 (1989).

12. In *US v. Verdugo-Urquidez*, 856 F. 2d 1214 (1988), the court of appeals suppressed the search by Mexican authorities of a suspect's two homes in Mexico to provide evidence for a DEA case against the suspect. This was reversed by the Supreme Court, effectively cutting back on the 4th Amendment rights we enjoy in the US and allowing for operations abroad by foreign governments.

13. "The Extraterritorial War on Cocaine: Perspectives from Bolivia and Colombia," 12 *Suffolk Transnat. L.J.* 39 (1988) at 45, notes that United States Strategy has focused on the origin of illegal narcotics, citing "Narcotics Control Strategy Report Released," 86 *Dep't St. Bull.* 80, 80-81 (Apr. 1986). And, with respect to cocaine, the key to US policy has been reduction in the supply of the coca leaf, citing J. Whitehead, "US International Narcotics Control Programs and Policies," 86 *Dep't St. Bull.* 37, 39 (Oct. 1986).

14. The UHV accounts for about 68,000 hectares (58%) of the total illegal area (117,500 ha) in Peru (1 hectare = 2.47 acres). Source: NAU, January 1990. Other coca-producing regions include Ucayali and the central selva and Convención. Agency for International Development, Lima Mission, Special Projects Office, *The Upper Huallaga Valley* (1991) at 4.

15. In the preparation of this report, I met with the following individuals: (1) William A. Binns, Esau Hidalgo Murrieta, and Dennis del Castillo, each of USAID/Lima (26-28 June, 1 July 1991); (2) Julio A. Echevarria, USAID/Lima (1 July 1991); (3) Carlos E. Aramburú, Consejo Nacional de Población, Regional Vice-president of the Pathfinder Fund, and former AID advisor in the UHV, Lima (27 June 1991); (4) Manuel Cristobal Nuñez, Director of the Titling and Cadastral Program, Ministry of Agriculture, and Carlos Mendoza Mejía, also of the Ministry of Agriculture, Government of Peru, Lima (28 June 1991); (5) José Corbera Vilcarromero, former Agrarian Reform Director, and Director of Colonization, Government of Peru, and now an AID contractor, Lima (26 June 1991); (6) Carlos Mora Bernasconi, President, Centro de Investigación y Promoción Amazónica (CIPA), Lima (28 June 1991); (7) Albert Forsyth and Mariano Cornejo B. of the *Instituto Libertad y Democracia* (ILD), Lima (27 June 1991); (8) Erhardt Rupprecht, AID/Lima, Peru (28 June 1991); (9) Rudolfo Griego, Chief, Office of Food and Agriculture, USAID/Lima, Peru (27 June 1991); (10) Frank Record, Minority Senior Staff Consultant, Committee on Foreign Affairs, Washington, DC (22 July 1991); (11) Henry Dietz, Department of Government, University of Texas (6 April 1991); and (12) Susana Lobatón, *Cooperación Técnica, Embajada Suiza*, Lima, and Carlos Camacho of IDEA, Lima (27 June 1991) [Carlos Camacho was again consulted on 19 July 1991 in a telephone conversation].

Also in preparation of this report, I examined, among other documents, the following: (1) Notarial and Public Registry Legislation; (2) Agrarian Procedural Legislation; (3) Civil Procedure Code of Peru; (4) Commercial Code of Peru; (5) Peru's new Civil Code; (6) Peru's new Penal Code; (7) relevant original Agrarian Reform Legislation; (8) recent decrees 009-91-AG (31 March 1991) and 018-91-AG (5 May 1991); and other laws, documents, and reports, as deemed necessary.

16. This land is mainly arid or semi-arid. It is roughly 10 to 100 miles wide and has widespread irrigation.

17. The Sierra lies in the Andes. Indigenous people engaged in subsistence agriculture live in this region. Climate varies from temperate to very cold. These lands are well-watered, covering 27% of the country's territory.

18. The Selva contains high and low tropical jungle lands. It is mainly undeveloped, though it has the potential for a number of commercial crops. Water is plentiful.

19. Ley 8687 (1 July 1938) and its accompanying *reglamento*.

20. Ibán de Rementarfa, "La sustitución de cultivos como perspectiva," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) at 361, 369; meeting with Carlos Mora Bernasconi, President, Centro de Investigación y Promoción Amazónica, Lima (28 June 1991).

21. Before the 1970s, coca was produced mainly for traditional consumption and legally for medical purposes. Edmundo Morales, *Cocaine: White Gold Rush in Peru* (1989) at 67.
22. José Corbera V., *Patrones de Asentamiento en Selva* (1990) at 59.
23. Interview with William Binns, US Agency for International Development, Lima Mission, 29 June 1991.
24. Bruno Lesevic R., "Dinámica demográfica y colonización en la selva alta peruana: 1940-1981," in *Población y Colonización en la Alta Amazonia Peruana*, ed. Centro de Investigación y Promoción Amazónica (1984) at 28.
25. Ibán de Rementarfa, "La sustitución de cultivos como perspectiva," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) 361, 370.
26. Meeting with Carlos Mora Bernasconi, President, Centro de Investigación y Promoción Amazónica, Lima (28 June 1991).
27. The guerrillas are sometimes referred to as the *turucos*.
28. José E. Gonzales Manrique, "Perú: Sendero Luminoso en el Valle de la Coca," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) at 207, 210. *Sendero* killed the mayor of Tingo María, Tito Jaime, in the process of moving into the UHV. See Ibán de Rementarfa, "La sustitución de cultivos como perspectiva," in *ibid.*, at 361, 372.
29. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).
30. *Ibid.*
31. "US Narcotics Control Programs Overseas: An Assessment," Committee on Foreign Affairs, US House of Representatives, 99th Congress, 1st Session (22 Feb. 1985) at 13.
32. Eduardo Bedoya Garland, *Las Causas de la Deforestación en la Amazonía Peruana: Un Problema Estructural* (1991) at 113.
33. There are usually up to eight "middlemen" between the grower and the Colombian purchaser. By making coca paste, the grower can cut out some of these people and thus increase his/her profit. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).
34. Humberto Campodónico, "La política del avestruz," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) 225, 254-5.
35. Meeting with Carlos E. Aramburú, Consejo Nacional de Población, Lima (27 June 1991). See also, Comments by Hernando de Soto, in *Toward a Peaceful Revolution: Report on the First Annual Program Review Conference*, ed. Instituto Libertad y Democracia (28 Jan. 1991) at 5. De Soto

claims, "When we talk about coca growers, we are talking about 200,000 farmers. With their families, they represent one million persons. When we talk about drug traffickers, we are talking about 500 criminals. Programs to solve the drug problem must distinguish between these two classes of individuals. Any initiative that does not make the distinction will only give the terrorists and drug traffickers one million additional supporters."

36. Comment by Mariano Cornejo, in a meeting with Albert Forsyth and Mariano Cornejo B. of the Instituto Libertad y Democracia, and William Binns, Special Projects Officer, Agency for International Development, Lima (27 June 1991).

37. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).

38. The motorbike driver is referred to as a *mochila*.

39. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).

40. Carlos Aramburú, "La economía parcelaria y el cultivo de coca: el caso del Alto Huallaga," in *Pasta Básica de Cocaína: Un Estudio Multidisciplinario*, by Frederico R. Leon (1989) 231, 254.

41. Meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).

42. Carlos Aramburú, "La economía parcelaria y el cultivo de coca: el caso del Alto Huallaga," in *Pasta Básica de Cocaína: Un Estudio Multidisciplinario*, by Frederico R. Leon (1989) at 254.

43. Decreto-Ley 22095 originally made coca production illegal. Now, this provision is included among the felonies against public health in the revised Penal Code. Possession of drugs, as a crime, must have trafficking as its purpose. The law establishes how to determine if the drug is held simply for personal consumption. See "Exposición de motivos," Art. 10 of the Código Penal, Decreto Legislativo No. 635 (1991) at 9; Penal Code, Second Book, Title XII, Chapter III, Section II, "Tráfico ilícito de drogas," Arts. 296 through 303. Decreto Ley No. 122 (12 June 1981), Art. 55, imposes penalties for coca production in certain cases. See also, Carlos Aramburú, "La economía parcelaria y el cultivo de coca: el caso del Alto Huallaga," in *Pasta Básica de Cocaína: Un Estudio Multidisciplinario*, by Frederico R. Leon (1989) at 55. Coca production in protected lands could also be punished using Art. 310 of the Penal Code's Second Book, Title XIII, Sole Chapter, which forbids the destruction or damage of forest lands legally protected. The punishment for violation is not less than one year, and not more than three years, of imprisonment.

44. Decreto Supremo 040-83-AG (Art. 112 of the Decreto Supremo 147-81-AG).

45. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).



46. Meeting with Carlos Mora Bernasconi, President, Centro de Investigación y Promoción Amazónica, Lima (28 June 1991).
47. Ibid.
48. Agency for International Development, Lima Mission, Special Projects Office, *The Upper Huallaga Valley* (1991) at 3.
49. Ibid.
50. Ibid., at 2.
51. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991); Agency for International Development, Lima Mission, Special Projects Office, *The Upper Huallaga Valley* (1991) at 3.
52. Meeting with Carlos E. Aramburú, Consejo Nacional de Población, Lima (27 June 1991).
53. Carlos Aramburú, "La economía parcelaria y el cultivo de coca: el caso del Alto Huallaga," in *Pasta Básica de Cocaína: Un Estudio Multidisciplinario*, by Frederico R. Leon (1989) at 253.
54. Edmundo Morales, *Cocaine: White Gold Rush in Peru* (1989) at 52.
55. Agency for International Development, Lima Mission, Special Projects Office, *The Upper Huallaga Valley* (1991) at 3.
56. Mahmoud A. El Sohly, Rudolf Brenneisen, and Alan B Jones, "Coca Paste: Chemical Analysis and Smoking Experiments," 36 *J. of Forensic Sciences* 93 (1991).
57. Ibán de Rementarúa, "La sustitución de cultivos como perspectiva," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) 361, 380.
58. Bruno Lesevic R., "Dinámica demográfica y colonización en la selva alta peruana: 1940-1981," in *Población y Colonización en la Alta Amazonia Peruana*, ed. Centro de Investigación y Promoción Amazónica (1984) at 32.
59. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).
60. Meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).
61. "US Narcotics Control Programs Overseas: An Assessment," Committee on Foreign Affairs, US House of Representatives, 99th Congress, 1st Session (22 Feb. 1985) at 20.
62. Rensselaer W. Lee III, *The White Labyrinth: Cocaine and Political Power* (1989) at 37.

63. Agency for International Development, Lima Mission, Special Projects Office, *The Upper Huallaga Valley* (1991) at 6.
64. *Ibid.*, at 6-7.
65. Meeting with Carlos E. Aramburú, Consejo Nacional de Población, Lima (27 June 1991).
66. No fertilizer is available for sale at the "official" government price. Meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).
67. There is not a great deal of heavy labor involved with coca. Children can grow it. Traditional crops require much more work.
68. See also, Eduardo Bedoya Garland, *Las Causas de la Deforestación en la Amazonía Peruana: Un Problema Estructural* (1991) at 83.
69. Agency for International Development, Lima Mission, Special Projects Office, *The Upper Huallaga Valley* (1991) at 6.
70. Interview with William Binns, Special Projects Officer, Agency for International Development, Lima (27 June 1991) [hereinafter referred to as Binns, 27 June].
71. Meeting with Carlos E. Aramburú, Consejo Nacional de Población, Lima (27 June 1991).
72. *Ibid.*
73. Bruno Lesevic R., "Dinámica demográfica y colonización en la selva alta peruana: 1940-1981," at 32, and Alvaro Salazar Pereira, "Situación actual de los proyectos especiales de selva," at 264-268, both in *Población y Colonización en la Alta Amazonia Peruana*, ed. Centro de Investigación y Promoción Amazónica (1984).
74. Edmundo Morales, *Cocaine: White Gold Rush in Peru* (1989) at 152.
75. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).
76. Meeting with Carlos E. Aramburú, Consejo Nacional de Población, Lima (27 June 1991).
77. "Conclusiones y recomendaciones del seminario: 'Población y colonización en la alta Amazonia peruana,'" in *Población y Colonización en la Alta Amazonia Peruana*, ed. Centro de Investigación y Promoción Amazónica (1984) at 275.
78. Alejandro Camino, "Coca: del uso tradicional al narcotráfico," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) at 91, 103.
79. Eduardo Bedoya Garland, *Las Causas de la Deforestación en la Amazonía Peruana: Un Problema Estructural* (1991) at 109, notes that in 1986 alone, coca was responsible for the deforestation of 150 thousand hectares. Somewhere between 100 and 150 thousand hectares of land

were devoted to coca production in 1987 and 1988, according to Bedoya. In short, 10% of all deforestation during this century in the Peruvian Amazon has been due to coca production. Bedoya at 110.

80. Alejandro Camino, "Coca: del uso tradicional al narcotráfico," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) at 103.

81. *Ibid.*

82. *Ibid.*, at 104.

83. Eduardo Bedoya Garland, *Las Causas de la Deforestación en la Amazonía Peruana: Un Problema Estructural* (1991) at 81.

84. *Ibid.*

85. *Ibid.*, at 83.

86. *Ibid.*, at 84.

87. *Ibid.*

88. Instituto Libertad y Democracia, *ILD-IN Brief* (Nov. 1990) at 2.

89. Interview with José Corbera, former director of the agrarian reform from 1978 to 1981 (26 June 1991). An alternative to titling would be some sort of registration of possession, so that the grower would feel that he was recognized and that the state was interested in helping him. *Id.*

90. Eduardo Bedoya Garland, *Las Causas de la Deforestación en la Amazonía Peruana: Un Problema Estructural* (1991) at 86.

91. *Ibid.*

92. *Ibid.*, at 114. Translation from Spanish is my own.

93. Juan del Aguila, "Titulación y regulación en la tenencia de tierras," in *Población y Colonización en la Alta Amazonia Peruana*, ed. Centro de Investigación y Promoción Amazónica (1984) at 151.

94. *Ibid.*

95. For statistics on the number of parcels adjudicated under the colonization and land reform programs, among others, see Juan del Aguila, "Titulación y regulación en la tenencia de tierras," in *Población y Colonización en la Alta Amazonia Peruana*, ed. Centro de Investigación y Promoción Amazónica (1984) at 152-165.

96. *Ibid.*, at 158.

97. Indeed, the entire UHV has been photographed for mapping. A cadastre exists for all areas except the most dangerous regions where *Sendero Luminoso* has been present since 1985. The classification of soils and lands is well under way. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).

98. Ministerio de Agricultura, "Regularización de la tenencia de la tierra rústica en el ambito del alto Huallaga" (24 June 1991).

99. This was done pursuant to Ley 1220.

100. Texto Único Concordado de la Ley de Reforma Agraria, Decreto 17716, Decreto Supremo No. 265-70-AG, Arts. 1, 3(e).

101. Ibid., Art. 7(a).

102. Ibid., Art. 8.

103. Ibid.; Art. 1, Decreto Ley 18296.

104. Texto Único Concordado de la Ley de Reforma Agraria, Decreto 17716, Decreto Supremo No. 265-70-AG, Art. 8.

105. Ibid., Art. 15.

106. Comment by William Binns in a meeting with Albert Forsyth and Mariano Cornejo B. of the Instituto Libertad y Democracia, and William Binns, Special Projects Officer, Agency for International Development, Lima (27 June 1991).

107. Texto Único Concordado de la Ley de Reforma Agraria, Decreto 17716, Decreto Supremo No. 265-70-AG, Art. 86(a).

108. Ibid., Art. 86(b).

109. Ibid., Art. 86(c).

110. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991); sample document of title, Art. 6, found in Ministerio de Agricultura, "Regularización de la tenencia de la tierra rústica en el ambito del alto Huallaga" (24 June 1991).

111. Texto Único Concordado de la Ley de Reforma Agraria, Decreto 17716, Decreto Supremo No. 265-70-AG, Art. 127.

112. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).

113. Meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).

114. This falls under Art. 32 of Decreto Ley 22175 (in general terms) and Art. 53 of Decreto Supremo 003-79-AA (procedural law). Cited in Ministerio de Agricultura, "Regularización de la tenencia de la tierra rústica en el ambito del alto Huallaga" (24 June 1991) at 3.

115. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991), at which was discussed Ministerio de Agricultura, "Regularización de la tenencia de la tierra rústica en el ambito del alto Huallaga" (24 June 1991) at 3.

116. Ibid., at 4. Art. 32 of Decreto-Ley 22175; Art. 53 of Decreto Supremo 003-79-AA, as modified by Decreto-Supremo No. 004-83-AG.

117. Ibid. Art. 53 and Art. 54 of Decreto-Supremo 003-79-AA.

118. Ibid., at 5. Art. 59 of the Decreto-Ley 22175, modified by Art. 2 of Decreto-Ley No. 2 and Art. 112 of Decreto Supremo 147-81-DG, which in turn was modified by Decreto-Supremo No. 040-83 AG.

119. Ibid., at 6-7. Art. 45 of Decreto-Ley 22175 and Arts. 74 and 75 of Decreto-Supremo 003-79-AA establish the legal basis. Art. 73 of Decreto-Supremo 003-79-AA sets the procedure.

120. Ibid., at 7. The legal basis is found in Art. 43 of Decreto-Ley 22175, as modified by Art. 64 of Decreto-Ley No. 2 and Art. 2(2) of Decreto-Ley 22936.

121. Indeed, it will be unrepresentative to the extent that the Ministry of Agriculture paid all legal fees involved. *Campesinos* normally would have to pay their own bills and this might introduce additional delays.

122. Telefax dated 5 July 1991 from Esau Hidalgo, Special Projects Division of AID addressed to Steven E. Hendrix, Land Tenure Center.

123. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).

124. Ibid.

125. Ibid.

126. Interview with José Corbera, former director of the agrarian reform from 1978 to 1981 (26 June 1991).

127. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).

128. Ibid.
129. Interview with José Corbera, former director of the agrarian reform from 1978 to 1981 (26 June 1991).
130. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991). The process involves writing a *minuto* (minute) of the transaction with the public notary, creating a "public" document which evidences the change in ownership.
131. An exception to this is found where a landholder wishes to sell only a portion of his land. The notary will not approve the deal unless the resulting lots are each greater than 10 ha, the minimum legal requirement to prevent *minifundios*. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).
132. Meeting with Carlos E. Aramburú, Consejo Nacional de Población, Lima (27 June 1991).
133. Interview with José Corbera, former director of the agrarian reform from 1978 to 1981 (26 June 1991).
134. Ibid.
135. Arts. 5, 6, 7(a), 8, and 9 of Decreto Legislativo No. 653 (1 Aug. 1991).
136. Art. 16 of Decreto Legislativo No. 653.
137. Arts. 7, 12-15 of Decreto Legislativo No. 653.
138. José Manuel Mejía, "Propiedad de la tierra y ley agraria," presented at the seminar, "Legislación agraria y desarrollo económico" (20 June 1991, Lima, Peru) at 5.
139. Art. 10 of Decreto Supremo No. 011-91-AG.
140. Art. 23 of Decreto Legislativo No. 653.
141. Art. 9 of Decreto Legislativo No. 653.
142. Reglamento de la Ley de Promoción de las Inversiones en el Sector Agrario: Decreto Supremo 0048-91-AG/OGA-OAD.UT (11 Nov. 1991).
143. Candy Gourlay, "Development: 'Invisible Women' Bear Brunt of Poverty," *Inter-Press Service* (23 Nov. 1992).
144. Legislative Decree No. 613.
145. Second "Final Disposition" of Decreto Legislativo No. 653.

146. Meeting with Carlos E. Aramburú, "Consejo Nacional de Población," Lima, 27 June 1991.
147. The most notable is the magazine *The Economist*. Other proponents of legalization have included Milton Friedman and Mike Royko.
148. See The Anti-Drug Abuse Act of 1986, Pub. L. No. 99-570, Section 2005, 100 Stat. 3207, 61-63 (1986).
149. For an analogous situation, see "The Extraterritorial War on Cocaine: Perspectives from Bolivia and Colombia," 12 *Suffolk Transnat. L.J.* 39 (1988) at 54, where the author states that in Bolivia, traffickers knew US armed forces were entering the country and had time to remove all cocaine from the processing plants prior to the soldiers' arrival.
150. "US Narcotics Control Programs Overseas: An Assessment," Committee on Foreign Affairs, US House of Representatives, 99th Congress, 1st Session (22 Feb. 1985) at 14.
151. *Ibid.*, at 20.
152. *Ibid.*
153. José E. Gonzales Manrique, "Perú: Sendero Luminoso en el Valle de la Coca," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) at 207, 210.
154. Eduardo Bedoya Garland, *Las Causas de la Deforestación en la Amazonía Peruana: Un Problema Estructural* (1991) at 112-13.
155. José E. Gonzales Manrique, "Perú: Sendero Luminoso en el Valle de la Coca," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) at 210.
156. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).
157. I listened to such broadcasts while in Lima the week of 26 June 1991.
158. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).
159. *Ibid.*
160. 18 USC Section 1385 (1982). The law does not, however, completely forbid all military assistance to civilian law enforcement agencies. The Act gives Congress and the Constitution the power to willfully authorize the use of military for such purposes. Otherwise, a fine or imprisonment is imposed. Given the policies embodied in the law, one can understand the reluctance by the military to become involved.

161. Americas Watch, *Abdicating Democratic Authority: Human Rights in Peru* (New York: Oct. 1984), as cited in Angela Cornell and Kenneth Roberts, "Democracy, Counterinsurgency, and Human Rights: The Case of Peru," *12 Human Rights Q.* 529 (1990) at 530.

162. Diego García-Sayán, "Peru: estados de excepción y régimen jurídico," in *Estados de Emergencia en la Región Andina*, ed. Diego García-Sayán (Lima: Comisión Andina de Juristas, 1987), at 117, as cited in Angela Cornell and Kenneth Roberts, "Democracy, Counterinsurgency, and Human Rights: The Case of Peru," *12 Human Rights Q.* 529 (1990) at 530.

163. See, for example, Americas Watch, *Abdicating Democratic Authority: Human Rights in Peru* (New York: Oct. 1984), as sighted in Angela Cornell and Kenneth Roberts, "Democracy, Counterinsurgency, and Human Rights: The Case of Peru," *12 Human Rights Q.* 529 (1990) at 552; Gustavo Goritti, "Insurgencia y democracia," *Debate* 12, 59 (March-April 1990); Report of the Comisión Especial del Senado sobre las Causas de la Violencia y Alternativas de Pacificación en el Perú, *Violencia y Pacificación* (Lima: Desco and the Comisión de Juristas, 1989), at 309-12.

164. Comments by Marc Chernick of Columbia University in *The Battle For Colombia: A Report by Colombian Journalists* (New York University, Nov. 1989) at 28.

165. Meeting with Carlos E. Aramburú, Consejo Nacional de Población, Lima, 27 June 1991. See also Eduardo Bedoya Garland, *Las Causas de la Deforestación en la Amazonía Peruana: Un Problema Estructural* (1991) at 110.

166. This group is lead by Dr. Justo Silva, an UHV advisor to the ILD.

167. Meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).

168. "US Narcotics Control Programs Overseas: An Assessment," Committee on Foreign Affairs, US House of Representatives, 99th Congress, 1st Session (22 Feb. 1985) at 20.

169. Ley 22095. This was not always the case. Coca production of less than 2 ha was legal. See "US Narcotics Control Programs Overseas: An Assessment," Committee on Foreign Affairs, US House of Representatives, 99th Congress, 1st Session (22 Feb. 1985) at 20.

170. *Ibid.*, at 21.

171. José E. Gonzales Manrique, "Perú: Sendero Luminoso en el Valle de la Coca," in *Coca, Cocaína y Narcotráfico*, ed. Diego García-Sayán (1989) at 216.

172. *Ibid.*, at 211.

173. Eduardo Bedoya Garland, *Las Causas de la Deforestación en la Amazonía Peruana: Un Problema Estructural* (1991) at 111-12. New coca lands of the 1990s will be the Rfo Callarfa, the highlands part of the Rfo Ucayali, and the Rfo Pachitea.

174. Meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).



175. Meeting with Dennis del Castillo, Office of Economic Recovery, and Esau Hidalgo Murrieta, Special Projects Advisor, Agency for International Development, Lima (25 June 1991).
176. Instituto Libertad y Democracia, *Update* (April 1990) at 6.
177. *Ibid.*; see also *Update* (July 1990).
178. Comments by Hernando de Soto, in Instituto Libertad y Democracia, *Toward a Peaceful Revolution: Report on the First Annual Program Review Conference* (28 Jan. 1991) at 1.
179. See, for example, David Asman, "A Break in the Dark Clouds that Hover over Peru," *Wall St. J.* (15 Feb. 1991) at A13.
180. Hernando de Soto, "Peru's Ex-Czar on Cocaine: The Supply Side," *Wall Str. J.* (14 Feb. 1992) at A11 (editorial).
181. Comments by Hernando de Soto, in Instituto Libertad y Democracia, *Toward a Peaceful Revolution: Report on the First Annual Program Review Conference* (28 Jan. 1991). See also Roberto MacLean (Ambassador of Peru, Washington, DC), "Peru: A Better Future," *Newsweek* (2 March 1992), at 19 (editorial), for an affirmation of the distinction between growers and refiners of coca.
182. Comments by Hernando de Soto, in Instituto Libertad y Democracia, *Toward a Peaceful Revolution: Report on the First Annual Program Review Conference* (28 Jan. 1991) at 5.
183. *Ibid.*, at 5-6. Bernard Aronson, Assistant Secretary for Inter-American Affairs, US Department of State, commenting on the official State Department view of the ILD approach to counternarcotics, stated, "If you can make \$10,000 per hectare growing coca leaf in the Upper Huallaga Valley of Peru, you are not going to grow macadamia nuts or cut flowers. However, if you make it economic to go into an alternative crop, but bureaucratic obstacles prevent you from competing, it is a Pyrrhic victory. I think Mr. de Soto's approach is very positive. We're working very closely with him and with the Fujimori government. The kind of comprehensive approach he envisions is exactly what we believe in." *Ibid.*, at 8-9.
184. Instituto Libertad y Democracia, *ILD-IN Brief* (Nov. 1990) at 1. President Fujimori has adopted these ideas.
185. Comment by Mariano Cornejo in a meeting with Albert Forsyth and Mariano Cornejo B. of the Instituto Libertad y Democracia, and William Binns, Special Projects Officer, Agency for International Development, Lima (27 June 1991), Lima, Peru, referring to the ILD project in Huacán.
186. *Ibid.*
187. Meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).
188. Comment by Mariano Cornejo in a meeting with Albert Forsyth and Mariano Cornejo B. of the Instituto Libertad y Democracia, and William Binns, Special Projects Officer, Agency for International Development, Lima (27 June 1991).

189. Ibid.

190. Comment by Albert Forsyth in a meeting with Albert Forsyth and Mariano Cornejo B. of the Instituto Libertad y Democracia, and William Binns, Special Projects Officer, Agency for International Development, Lima (27 June 1991).

191. Comment by Mariano Cornejo in a meeting with Albert Forsyth and Mariano Cornejo B. of the Instituto Libertad y Democracia, and William Binns, Special Projects Officer, Agency for International Development, Lima (27 June 1991).

192. Ibid.

193. Ibid.

194. Eric B. Shearer, Susana Lastarria-Cornhiel, and Dina Mesbah, "The Reform of Rural Land Markets in Latin America and the Caribbean: Research, Theory, and Policy Implications" (1991) at vii.

195. Comment by Mariano Cornejo in a meeting with Albert Forsyth and Mariano Cornejo B. of the Instituto Libertad y Democracia, and William Binns, Special Projects Officer, Agency for International Development, Lima (27 June 1991).

196. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991).

197. This polemic was suggested during a meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).

198. Comments by Hernando de Soto, in *Toward a Peaceful Revolution: Report on the First Annual Program Review Conference*, comp. Instituto Libertad y Democracia (28 Jan. 1991) at 12.

199. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June 1991). The term *senderistas* refers to the followers of *Sendero Luminoso*.

200. Meeting with William A. Binns, Special Projects Officer, Agency for International Development, Lima (26 June 1991).

201. Comments by Hernando de Soto, *Toward a Peaceful Revolution: Report on the First Annual Program Review Conference*, comp. Instituto Libertad y Democracia (28 Jan. 1991) at 12.

202. Meeting with Ing. Manuel Cristobal Nuñez, Program Director for Cadastres and Titling, Department of Agriculture, Office of Titling, UHV, and Ing. Carlos Mendoza Mejía, also of the Peruvian Department of Agriculture, Office of Titling, UHV (28 June, 1991).

203. Ibid.

204. Juan Gómez Martínez, Mayor of Medellín, Colombia, states, "When a kilo of cocaine comes into the United States worth 12 million dollars, and is then distributed, it is sold for 200 million dollars. That is where the war must be waged. Not only in our country, where we receive military equipment and we're supposed to run after some of these gentlemen on the streets of Medellín and chase them with aircraft." See comments by Marc Chernick, of Columbia University, in *The Battle for Colombia: A Report by Colombian Journalists* (New York University, Nov. 1989) at 23. Nancy Reagan, appearing before the United Nations, declared that the coca cartel does not begin in Medellín. It begins in the streets of New York, Miami, Los Angeles and in each city of the US where crack is bought. See Diego García-Sayán, *Coca, Cocaina y Narcotráfico* (1989) at 18.