

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).⁵⁰

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.⁵¹ 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.⁵² One study found that between 60 and 70 percent of farmers in the UHV grew coca despite the location of their land.⁵³

Coca farming has five distinct phases: (1) slash and burn (*reso*), (2) seedling preparation, (3) hole digging (*poseada*), (4) transplanting, and (5) cultivating.⁵⁴ Coca leaves can be harvested three to five times a year and then dried to prevent rotting.⁵⁵ 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."⁵⁶

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.⁵⁷ 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.⁵⁸ 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.⁵⁹

Promotion of alternative crops will continue to experience difficulties, however. *Sendero Luminoso* has attacked efforts to diversity production.⁶⁰ 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.⁶¹

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.⁶² 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.⁶³

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.⁶⁴

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.⁶⁵

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,⁶⁶ pesticides, hired labor,⁶⁷ land, and so on.⁶⁸ Consequently, the small farmer's costs are high under coca-induced inflation.⁶⁹ Transportation of produce by hand is heavy and extremely expensive.⁷⁰ 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.⁷¹

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.⁷²

In theory, AID set up the PEAH to finance agricultural loans through the *Banco Agrario* and promote alternatives to coca production.⁷³ "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."⁷⁴

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,⁷⁵ and (2) to purchase cars and other nonagricultural luxury items.⁷⁶

4. ENVIRONMENTAL EFFECTS OF COCA PRODUCTION

In recent years, there has been a severe loss of natural resources in the selva.⁷⁷ Generally, we find coca expansion in places with little access and higher altitude. This results in heavy erosion and flooding⁷⁸ as well as alarming deforestation.⁷⁹ Further, coca production causes water pollution since it involves heavy use of insecticides, herbicides, and fertilizers,⁸⁰ and the chemicals used to process the coca leaf are themselves often dumped into the rivers.⁸¹

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.⁸²

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.⁸³ In other words, land squatters are characterized by a continual movement or migration to new, virgin lands.⁸⁴ 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.⁸⁵

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.⁸⁶ Unfortunately, the expansion of the coca economy has led to a tremendous decrease in the development of technology for planting legal, alternative crops.⁸⁷ 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."⁸⁸

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.⁸⁹

In addition, people from the sierra do not value the forestlands and therefore would not want title to property in forestal areas,⁹⁰ 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.⁹¹ 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.⁹²

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.⁹³ 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.⁹⁴

The extent of land formalization in the UHV has been impressive.⁹⁵ Aerial photography has been used extensively⁹⁶ with surveys of the land itself.⁹⁷ 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."⁹⁸ These data show that before 1965, 1,054 titles had been granted in the region.⁹⁹ 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.¹⁰⁰ Otherwise, the land reverts to state ownership.¹⁰¹

A farmer loses title if the land is abandoned for three consecutive years.¹⁰² 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.¹⁰³ 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.¹⁰⁴ Other provisions sanction antisocial behavior with loss of title, including actions of abandonment, blocking of land markets, and fragmentation of parcels.¹⁰⁵

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.¹⁰⁶

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

The minimum size required to title a lot is 10 hectares.¹¹² *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.¹¹³

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.¹¹⁴ It involves 8 legal steps and lawfully cannot be completed in less than 163 days.¹¹⁵ 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.¹¹⁶ 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.¹¹⁷ (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.¹¹⁸ 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.¹¹⁹ (6) "Issuance of Contracts of Adjudicated Free Titles" involves a minimum of 41 days legally and 4 discrete steps.¹²⁰ 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.¹²¹ 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.¹²²

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.¹²³ Thus, the bureaucracy is of great concern. Surprisingly, however, the data registered now

are fairly current.¹²⁴ 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.

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 and continue 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.¹²⁵ 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.¹²⁶ Thus, title is not denied because a farmer grows a small amount of coca, despite legislation to the contrary.¹²⁷

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.¹²⁸ Thus, land is constantly changing hands. A continuous effort is needed to keep land registries accurate in this dynamic climate. This has been done. Complying with all formalities may actually slow down a market which has adapted well.¹²⁹

To adapt the system to their needs, local *campesinos* have used the "certificate of ownership" 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 existing, formal process.¹³⁰ Thus, it appears that the delays associated with land titling found in procedural areas are not nearly as important to the landholder.¹³¹

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. Thus the 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.¹³²

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

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.¹³⁴

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.¹³⁵ No authorizations for land transfer are required.¹³⁶ Land has become, in a legal sense, a commercial asset, though size restrictions remain.¹³⁷

The new legislation omits to mention how state and abandoned land can be distributed to beneficiaries.¹³⁸ It does state that beneficiaries must take additional steps to solicit land, including obtaining a performance bond.¹³⁹ 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.¹⁴⁰ The law specifically excludes native and *campesino* groups from access to credit through mortgages.¹⁴¹ 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.¹⁴² 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.¹⁴³

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 hectare. 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,¹⁴⁴ 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.¹⁴⁵

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.