

# Illegal Logging in Costa Rica: an analysis for discussion

## Executive Summary

Costa Rica's National Plan for Forest Development contains a chapter on Sustainability Evaluation, Monitoring and Control, which sets forth several goals for finding solutions to the problem of illegal logging in Costa Rica. A Commission for Implementation of the Plan (National System of Conservation Areas, National Forest Financing Fund and National Forestry Office), assigned to address this issue with support from the PROFOR Project of UNDP, asked the Tropical Agricultural Research and Higher Education Center (CATIE) to put together an interdisciplinary team that could prepare a report on illegal logging in Costa Rica. With such a report, it would be possible to conceptualize the issue clearly, identify causes and characteristics, and propose suitable solutions.

This paper is based on an analysis of national and international documentation, reports on the national lumber market, regional audit reports on the administration, control and development of forestry activities, and complaints filed for illegal logging. Document analysis was combined with the findings of a survey of 79 representatives of various institutions, organizations and groups associated with forest management, and the results of a workshop held with "lumberjacks."

The discussion begins with a look at the historical background of illegal logging in Costa Rica. The origins of this activity lie in a broad, complex array of political, institutional, social and economic factors that interacted and evolved over time, and that are not easy to grasp. Illegal felling of trees was actually encouraged politically through policies for land settlement and rural development, some of which are still on the books, that hold out incentives for converting forest into agricultural land.

The problem of illegal timber cutting cannot be interpreted merely as the outcome of current conditions; the subject is as complex as the very relationship between society and the forest. Moreover, it changes and develops constantly with time, influenced by diverse currents of thought and economic and social trends. To date, Costa Rica has lacked any comprehensive document analyzing the problem of illegal logging, but this report was written as a first step in this direction.

As the name says, "illegal logging" is an activity that takes place in violation of current law. It is not synonymous with "deforestation" per se or with particular ways of using trees that may or may not be acceptable to certain groups of society. Although Forestry Law 7575 fails to define the concept of illegal logging, it does prohibit a number of specific, punishable human activities that run counter to legal provisions for the conservation and sustainable use of forest resources.

The illegal removal of timber in Costa Rica should be understood as *any cutting that is prohibited by current forestry legislation*. This includes felling or other uses that are inconsistent

with the regulations and provisions of the Forestry Law; that fail to meet requirements and regulations; or that breach logging bans. Crimes that involve illegal cutting of timber, along with corresponding sanctions, are set forth in articles 58 and 61 of Forestry Law 7575, to wit:

- § developing forest resources on land owned by the State and in Protected Areas, for purposes other than those established in Law 7575;
- § violating declared logging bans;
- § developing forest production activities on private property without permission from the State Forest Department; or if permits are obtained, conducting activities not covered therein; and
- § conducting activities that change land use (removal of the forest).

Nevertheless, Forest Law 7575 as written does not reflect the principal of full legal definitions of criminal conduct, according to which every law should establish sanctions for violations defined in the text. This shortcoming hampers the work of judicial and administrative officers whose job is to penalize offenses. It is largely responsible for rendering legal sanctions largely inapplicable, and engendering numerous procedural dismissals, courtroom acquittals, suspensions of criminal processes, dismissals for lack of grounds, and unmanageable time extensions. In practice, these situations amount to impunity for offenders.

Illegal logging in Costa Rica can be expected to produce diverse of impacts:

The ecological services of private and state-owned forests will be lost or threatened. Deforestation will accelerate, together with the resulting loss of biodiversity. Even the remaining forests will suffer from greater fragmentation, isolation and degradation due to the removal of trees without regard for notions of sustainability.

Forest owners who choose to manage their resources sustainably will face unfair market competition and negative incentives. Timber resources will deteriorate and, over the medium term, Costa Rican society will find that the supply of wood for its own use has shriveled as the forestry industry shrinks and its contribution to society dries up. This in turn will drive down the production value of land and the quantity and quality of environmental services provided by forests and agroforestry systems (trees in pastures).

Illegal logging also deprives the State of tax revenue and payments of other kinds, while obliging it to incur greater budgetary outlays for investigations, audit studies, and administrative and judicial processes. Ultimately, the country's economy will become less efficient, grow more slowly, and be rendered less competitive. Worse yet, this activity damages the country's reputation, driving away investments in forestry and other sectors such as tourism.

For overall society, illegal cutting exerts great pressure on the forestry sector, both public and private, that could culminate in radical measures such as logging bans, restrictions, moratoriums, etc. Quickly disappearing from the landscape is any realistic hope of building a forestry culture based on the multiple functions of the forest, such as that found in developed countries that are achieving stable or growing forest cover and an economically significant forestry sector.

Illegal timber cutting is associated with many causal factors:

In the legal and institutional arena, many gaps contained in current laws and policies actually discourage sustainable forest management, as outlined above. In addition, the State Forest Department lacks the resources and backing necessary to provide oversight and technical assistance for the management of forest resources. Even those who are willing to take out a legal logging permit find themselves faced with confusing, tedious paperwork requirements.

From the socio-cultural standpoint, illegal cutting is fed by an agricultural tradition deeply rooted among Costa Ricans, and which stands in contrast to a nearly nonexistent culture of sustainable forest use. The forest is seen as a nonproductive, practically useless occupation of the land. Illegal cutting also reveals the widespread presence of corruption, an ill that can be found in other sectors of Costa Rican society as well.

Economic pressures are another bane. Many owners of forest resources face short-term financial needs. At the same time, many are interested in expanding agriculture at the expense the forest, exacerbated by market demand for “cheap wood” and tempting offers held out by timber interests.

Where does the illegally cut wood come from?

Survey respondents were asked about the effectiveness of legal and technical regulations to ensure proper use of Costa Rica’s forest resources. They stated that 50% of the timber cut illegally came from production systems that would be eligible for a logging permit, and 11% from land for which requested permits had been denied for various reasons. The remaining 39% was cut under conditions that do not qualify for a felling permit, such as protected zones on the farm (steeply sloping lands, river banks, and very broken land), entailed rare tree species whose cutting is prohibited or restricted, or was taken from land within State-owned protected areas (mostly national parks and biological reserves).

In the view of survey respondents, illegal extraction of wood takes various forms, most commonly: removal of isolated trees from places such as pastures; logging in primary forests for which permits do not exist (but without changing land use); felling seed-bearing trees that had remained behind after the close of an authorized operation; and destruction of secondary forest for the purpose of changing land use.

Survey respondents cited various methods used to move illegally cut wood into the legitimate market:

- § reusing shipping bills (unstamped bills used repeatedly, color photocopies of unused bills, purchase of unused bills, or bills reclaimed from the sawmill);
- § paying bribes to employees at various highway check points;
- § transporting concealed wood, either milled or as smooth logs (in small trucks, hidden among farm produce or covered with canvas tarps; in closed trailers; or in open trucks covered with sand);

- § using a purchase invoice or an invoice for “sawmill services” issued by a sawmill or lumberyard;
- § combining illegal operations with an authorized activity (overestimating the volume of certain trees to obtain more shipping bills and tree tags; stacking all cut logs in a single landing, thus combining wood extracted under an authorized plan with trees cut illegally);
- § shipping restricted kinds of wood under a certificate of origin issued for transport of legally authorized species;
- § transporting wood during off-hours (nights, weekends, holidays); and
- § bypassing check points by shipping to local markets via off-roads or rivers.

According to this same poll, around 50% of the wood cut illegally is sold at the sawmill, while the rest is distributed to small-volume lumberyards, furniture makers, the construction market, handicrafts businesses, producers of pallets, and the like.

Two indirect methods of analysis were used to produce an estimate of the volume of illegal logging in Costa Rica: a) the difference between the documented legal supply (permits issued) and the industrial demand for wood (at the sawmill); and b) evaluation of stumps in areas harvested under a logging permit. Using the first method, a review of three reports indicated that illegal cutting has accounted for 26% to 58% of the total market, a trend which appears to be declining (Lux and von Platen 1995; Barrantes *et al.* 1999; McKenzie 2000). It should be understood, however, that these figures are an underestimate because much of the illegally cut wood is not consumed by sawmills, but taken to other markets. Moreover, a certain percentage cannot be estimated, as it results from changing land use, is consumed on the farm, or is discarded. The second method found that an estimated 18% to 26% of the total volume of wood extracted under audited management plans was cut illegally (Ortiz *et al.* 1998; Ortiz *et al.* 1999; Ortiz *et al.* 1999). It cannot be stated conclusively whether some of these stumps were from trees that had been taken in lieu of others that, although authorized for cutting, had been left standing. It should be emphasized that this method estimates rates of illegal cutting only within approved management plans.

In order to compensate for some of the shortcomings of figures obtained using these two methods, an estimate was made on the basis of a survey taken in September 2001 among key informants in the forestry sector. This method suggested that illegal operations could have contributed as much as 28% to 41% of total volume cut in the country, with a weighted average of 35%. This estimate may be closer to the real volume of illegal felling of trees in Costa Rica.

These estimates cannot be understood correctly without considering the origin of the wood. According to McKenzie (2000), 41% of the wood consumed in the country in 1998 came from forest management plans, followed by 38% taken from trees outside forests, and 21% from tree plantations. By 2000, according to estimates by Sage (2001), the distribution had changed substantially: the major source of wood today is trees growing in pastures (53%), followed by tree plantations (33%), and finally, forest management plans (barely 14%). This drastic reduction in the role of forest management plans in total wood consumption in Costa Rica can be combined with findings from the stump analysis (Ortiz *et al.* 1998; Ortiz *et al.* 1999; Ortiz *et al.* 1999) to

suggest that at present, wood taken illegally under management plans accounts for only about 4% of the nation's wood consumption. This is consistent with the findings of the present study, in which key informants claimed that the largest proportion of illegal wood comes from trees in pastures, while lesser amounts could be attributed to management plans. Contrary to past assumptions, then, the problem of illegal timber cutting is associated more with removal of trees from pastures than with cutting in primary forests.

The figures clearly suggest that, if illegal logging is to be reduced, there is an urgent need to improve processes for approval and oversight of permits for cutting trees outside the forest, to rein in the illegal conversion of forests into pastures, to encourage and facilitate sustainable forest management, and to exercise more effective control over illegal cutting in natural forests, both inside and outside management plans.

Measures to ban management plans or restrict them excessively would address only a small part of the problem. In fact, such an approach could actually spark an increase in the conversion of true forests to pastures containing trees, thus increasing the indiscriminate removal of trees unprotected by management plans.

Many alternatives for addressing the complex problem of illegal logging are available and should be considered by the various institutions and organizations active in the sector. It is more economical to promote and oversee good management of forest resources than to enforce outright prohibition; in either case, it is clear that the State will need to contribute the resources that are essential for consolidating an effective strategy.

The study proposes six broad lines of action that should serve as the foundation for a strategy to fight illegal timber cutting. They focus on verifying the origin of wood in the market and on attacking the very roots of the problem and its manifestations over the short, medium and long term. These proposals are:

### **1. Promote sustainable management of forest resources**

This is probably the most effective strategy for preventing illegal logging and deforestation in Costa Rica. An environmentally sustainable and economically attractive forest management option will encourage landowners to protect their forest resources and refrain from resorting to illegal practices. This is why State-sponsored measures to control forest management must be analyzed in terms of costs and other practical implications for the producer. Effective mechanisms to guard against illegal cutting would also eliminate unfair competition by illegal operations and activate a market where it is more attractive for producers to manage their forests well than to risk operating illegally.

For this reason, there is a pressing need to overhaul procedures for the approval of management plans, forestry permits and control systems. As this study has shown, current mechanisms are defective and need to be redirected so that those who wish to manage their forests well can process their applications through a simpler, more efficient, more attractive system. Potential liability for illegal practices needs to be shouldered by everyone involved in the production chain

(landowners, forest regents, timber operations, shippers, industrialists, merchants). Serious consideration should be given to promoting the sale of wood that is certified to have come from sustainable management programs, as a way to make good management more attractive and reduce enforcement costs. Sustainable management should also be a high-priority consideration for the payment of environmental services.

## **2. Use information technology to control and monitor illegal logging**

The National System of Conservation Areas (SINAC) and the forestry sector should have a computerized information system including data bases loaded into a Geographic Information System (GIS). Such a tool would provide up-to-date information on the country's forest resources and quickly detect any move to convert forests into pastures. It would provide a yardstick for evaluating applications for forestry management permits. This would make it possible, over the medium term, to have accurate figures on the amount of land that is held in privately owned natural forest, and to monitor this land; over the long term, annual production capacity could be quantified for the different regions and/or Conservation Areas.

The process should be combined with more accurate systems for measuring industrial consumption of wood (sawmills, lumber yards, furniture shops) and fuelwood consumption by larger industries (such as coffee processing plants). These actual figures can be compared with authorized volumes to give a better estimate of illegal cutting in the country.

## **3. Special Brigade for control and protection**

This measure calls for the creation of a highly professionalized group to carry out control and protection activities. The Brigade would be made up of professionals in different disciplines, located at the headquarters office of SINAC and supporting field work for protection and monitoring, planning and training. It would act in close, direct coordination with the Conservation Areas and particularly with regional control and oversight staff.

The purpose of the Brigade would not be to take over the tasks of the regional offices, but rather to contribute to their work of supervision, monitoring, oversight and evaluation, thus helping them perform better. The experience should begin with a single Brigade working preferably in the most critical Conservation Areas, whose members are highly trained in technical, legal and administrative spheres involving the use of forest products and wildlife. Standing members of the Brigade would include a director with training and extensive experience in protection and control, and professionals in natural forest management and low-impact operations, ecology and biodiversity, dendrology, environmental law, administrative standards of the State Forest Department, information systems, and public security. In the course of its work, it would conduct operations for oversight, procedural review, training of public officers in the Conservation Areas, and planning.

## **4. A training strategy for sustainable use of forest resources**

A training strategy will need to be created for the various sectors involved in forest development,

responding to needs detected among target groups. Trainees would be: officers who operate permanent control check points (Rural Guard, Civil Guard, SINAC), forest owners, business operators from the lumber industry, sawmill operators, truck drivers and tractor drivers, forestry professionals (regents), employees of SINAC, members of NGOs, conservation associations, COVIRENA's, employees of the Judicial Police, other police officers, judges and prosecutors.

Topics for training will be determined through studies to assess real needs, and will probably include: learning to navigate the bureaucracy, sustainable forest management, other options for using the forest (environmental services, ecotourism, other marketing opportunities), professional ethics, forest and environmental legislation, environmental crimes, and how to file complaints. The training program could include a variety of activities such as: workshops based on real-life case studies, lectures with up-to-date information on relevant topics, motivational talks to raise awareness of the value of forest resources or of the importance of consuming wood and forestry products derived from sustainable management, technical assistance, and public education campaigns. Regional organizations of producers and forestry professionals should contribute to these programs, including: CODEFORSA, FUNDECOR, and ASUNFORT.

## **5. Participation of civil society to promote the sustainable use of forest resources**

Recognizing that the State Forest Department (SINAC) is not the only entity responsible for protecting the forests and has neither the capacity nor the resources to solve the problem of illegal timber cutting, civil society needs to become involved. Because of the growing participation and environmental awareness of the general population, there are many opportunities for civil society to contribute effectively, supporting processes of public education and training, and promoting both national and international forestry certification programs.

Financial resources may come from various sources, including private companies that wish to support a program initiated by civil society and backed by the State, an earmarked percentage of the forestry tax collected in each region, or support from the National Forestry Financing Fund (FONAFIFO) in recognition of the positive impact such programs can have on the credibility of the Environmental Services Payments program.

In this work, it is important not to keep Costa Ricans from consuming wood products. To the contrary, civil society can play an important role in promoting the consumption of wood derived from sustainably managed forest resources and discouraging the consumption of other materials that, because they consume greater quantities of energy in the production process, may have a more damaging impact on the environment.

## **6. Improve forestry legislation**

The regulatory framework must undergo an in-depth review to determine clearly what changes are needed in existing decrees, laws, resolutions, and administrative procedures. Criminal acts need to be clearly defined in order to establish liability for illegal logging. This would solve the problem of deficient definitions of criminal acts, which give rise to impunity under today's

forestry laws. Another pressing need is to make lumber companies and shippers share legal responsibility for forest management.

A large-scale effort must be undertaken to train judicial employees, and a major role can be played by NGOs and such organizations as the Bar Association and the Judicial Training School. Among the explicit goals would be: developing a legal and criminal structure ideally suited to facilitate procedural and administrative actions, creating sanctions that will have the desired dissuasive effect, ensuring that criminal behavior is punished, and tackling the high incidence of impunity and frequent waivers of criminal liability for actions that are in violation of the Forestry Law.