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Extinction for the Laotian Elephant:
An Austrian Critique of State Conservation

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Abstract

Once known as Pathetlao Lanexang, “The Land of a Million Elephants,” the country of Laos is in danger of losing its national heritage to extinction. Recent estimates for Laotian Elephant populations range anywhere from 3300 to as low as 500, showing no indication of recovery despite national, as well as international, conservational initiatives. Unfortunately for the Laotian Elephant, the failure of these initiatives was inevitable, leaving only the Laotian Elephants’ resultant severity of decline uncertain.

The derivation for this inevitable failure is the pervasive misdiagnosis of the threats facing the Laotian Elephant, thereby culminating in misguidedly devised solutions. These inadequate solutions themselves often exacerbating the problem, leading to further regulations and initiatives. In pursuit of an adequate, long-term solution, the goal of this paper is to evaluate the environment of decline for the Laotian Elephant and, using Austrian Economic Theory, identify viable solutions for long-term sustainability.

The analysis begins with a history of the Laotian Elephant’s progressive extinction, which is derived from the Ivory Trade, the Timber Industry’s deforestation and exhaustive elephant labor, land clearance for Agriculture, and contaminated habitat and population displacement from War; as well as, most importantly, the tenuous property rights which connect these factors. Whereas many other inquiries into the subject strictly cover the necessity of public conservation efforts based on democratic collaboration or simple legalization of the ivory trade, this study delves into the complex relationship between Laotian Elephants and the Ivory Trade, Lumber Industries, Agriculture, Scars of War, and the necessity of private entrepreneurship via private property rights and capitalist entrepreneurs. Such consideration is essential to understanding the Laotian Elephant, and the subsequent sustainability solutions, as all previous and current literature continues to err on the side of continuing inadequate policy.

Recognizing the fact that these “factors of decline” are interdependent and derived from inadequate property rights does not spell disaster; on the contrary, it’s the Lao people’s only means for securing the Laotian Elephant as a long-term sustainable species within the modern global economy. My research concludes that this property rights-based interdependence has a simpler solution than has yet been politically devised; and will not only preserve the Laotian Elephant population, but also foster long-term sustainability for the Ivory Trade, Lumber Industry, and UXO clearance.

JEL Codes: K11, K32, L51, P14, P51, Q20

Keywords: Elephants, Lao PDR, Ivory, Deforestation, Agriculture, UXO, Entrepreneurship, Conservation, and Property Rights.

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I. Introduction

The Asian Elephant (*Elephas Maximus*) has been an important socio-economic factor for the people of the Lao PDR for centuries. The elephant's significance to Laos is reflected in its ancient name Pathetlao Lanexang, "Land of a Million Elephants," as well as its former royal standard, which bore a three-headed elephant. Historically, domesticated elephants have assisted the Lao people in economic industries such as agriculture, timber, transportation and even warfare; whereas wild elephants were hunted for their ivory and meat. Elephants were even used in religious and cultural ceremonies; entire legends being written about the relationship between elephant and man. Even with this close and ancient relationship between man and elephant; however, the Laotian Elephant continues its progress toward the precipice of extinction.

Although elephant population estimates vary significantly within the Lao PDR, due to differences in time, resources, methods, etc., even conservative estimates on the decline of the population are disconcerting.² They are disconcerting because, by all estimates, the population is continuing to decline, both wild and domesticated, while birthrates also continue to decline. To complicate things further, the identified factors of decline are the very same factors which endeared the people of Laos to the elephant for centuries. Conservation efforts over the past several decades, be they national or international, have focused specifically on regulating these factors of decline as a means of stabilizing the population. These regulations include severe limitation, or even total prohibition, on the economic activities in which elephants are a factor of

² The Care and Management of Domesticated Asian Elephants in Lao PDR pg. 174

production, yet the effect of these regulations have proven to be either benign or detrimental, rather than helpful.

In this paper, I propose that securing private property rights over land/capital and allowing for free trade in elephants and the final goods they assist in producing are the catalysts to saving the Asian Elephant population in the Lao PDR. The beginning of the analysis concerns the purported “factors of decline,” some of which are the industries in which elephants constitute a historic factor of production, whilst others concern the capital and land upon which elephants depend. The specific “factors of decline” covered herein are the ivory trade, timber industry, and general loss of habitat. Following the analysis on the “factors of decline” is a section concerning the land tenure rights of citizens and commercial interests within the Lao PDR. The third section is a critique of Laos’ current land tenure rights using Austrian Economic Theory concerning entrepreneurship and property rights. The paper concludes by recognizing the interdependence of the “factors of decline,” and proposing a private property-based solution for the survival of the Asian Elephant in Lao PDR.

II. Factors of Decline for the Laotian Elephant

The Ivory Trade

The Ivory Trade in the Lao PDR

Perhaps the best-known contributor to the decline of the Asian Elephant, and elephants in general, is their role in the ivory trade. No doubt, due to the fact that harvesting ivory

necessitates the death of the elephant supplying the ivory. For this reason, the ivory trade is the predominant focal point of conservationists from all over the globe. Article upon article is written on the nefarious nature of the trade, and the necessity of its eradication. Statistics on poaching and illegal ivory seizures are recorded and closely monitored by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to aid in its enforcement. Yet, even this impressive international effort seems to have done little to stem the tide of elephant population decline in Laos, if anything, it has created an entire black-market dedicated to non-replenishing resource consumption directly bordering two of the world's largest consumers of ivory products.

Regulation of the ivory trade, for the purpose of conservation, entered the international stage after the first CITES convention in 1975.³ Among the first species to be listed under Appendix I, which are the most endangered, was the *Elephas Maximus*, or Asian Elephant. The *Loxodonta Africana*, African Elephant, would not be moved from Appendix II to Appendix I until 1989, but since then many African Elephant populations have been moved back to Appendix II (Botswana, Namibia, South Africa, and Zimbabwe).⁴ Nevertheless, 1989 marked the beginning of the international war on the ivory trade, the intent of such regulation being the conservation of elephant populations from overconsumption.

When species are listed under Appendix I the final products, of which they are factors of production, are heavily regulated and all forms of trade either require a permit or are prohibited outright. Once the CITES appendices were amended to include all elephants under Appendix I the war on ivory began in earnest, political pressure was exerted on countries to participate in the

³ The Convention on International Trade... page 1

⁴ CITES Appendices 2017

eradication of the trade and confiscation of illicit collection and transportation of ivory. The economic justification for such regulation being an increased cost, with the intent of deterrence, for poachers and those individuals/organizations considering non-sustainable consumption of elephants for the production of ivory.⁵ Although the first several years of the ban, post-1989, did report decreased rates of elephant poaching,⁶ ivory confiscation statistics indicate that the illicit ivory trade is not only still present but is also getting worse;⁷ furthermore, due to international ivory regulations Laos is becoming a trade hub for “Asian-run, African-based crime syndicates.”⁸

Ivory Trade in the Lao PDR

For impoverished countries such as the Lao PDR, the ivory regulations enforced by CITES, along with all participating nations regulations, have negatively affected both the human and elephant populations. The Lao PDR’s near absence of political influence within the region of Siam, coupled with excessive prevalence of government corruption and the impoverished conditions of the general populace, have cultivated the perfect atmosphere for illicit ivory production and trade, whether it’s shipped from Africa or produced locally.⁹

The Lao PDR must not have been a consideration when countries were considering strict regulation of the ivory trade, and if it was, they underestimated the significance of the

⁵ Ivory: Why the ban must stay

⁶ Ivory: Why the ban must stay

⁷ Illicit Ivory Trade Worse than Ever

⁸ Illicit Ivory Trade Worse than Ever

⁹ The Role of Lao PDR in the Ivory Trade

consequences. Laos is a poor country, the poorest country in the region; consisting of rugged terrain and low population density, and bordering the world's two largest consumer markets of ivory, Thailand and China. Such an environment has not only resulted in serious poaching concerns but also ivory trafficking from Africa to both Thailand and China, especially with China's increasing adherence to, and enforcement of, ivory trade regulations.¹⁰

For the ivory markets of Thailand and China, the Lao PDR increasingly acts as a “back door,” by which ivory can meet the countries' respective demands.¹¹ As a result of both legal loopholes and general cultural acceptance, ivory carving remains a thriving industry for these countries and the corrupt, near lawlessness of Laos assists in the continuation of this industry despite trade regulations.¹² Although the exact nature of this trade network is obscure, and “very little, if any, ivory has been confiscated in Lao PDR and none has been reported to ETIS,”¹³ there are numerous cases of shipments being seized while en route to Laos¹⁴ indicative of an illicit trade network within the region and potential cooperation of state authorities.

Not all the ivory being illicitly transported out of Laos is foreign, given Laotian regional poaching data which, although suspect due to the difficult nature of elephant population accounting in general, indicates high rates of poaching. This high rate of poaching is most prominent near its border with Thailand,¹⁵ wherein poachers are even so bold as to attack privately owned elephants.¹⁶ Some reports place the annual poaching rate within the Lao PDR at

¹⁰ The Role of Lao PDR in the Ivory Trade pg. 39

¹¹ Although listed under Group 9 by ETIS, Lao PDR has been identified as a growing transit market.

¹² The Role of Lao PDR in the Ivory Trade pg. 37

¹³ The Role of Lao PDR in the Ivory Trade pg. 39

¹⁴ The Role of Lao PDR in the Ivory Trade pg. 39

¹⁵ Current Status of Asian Elephants in Lao PDR pg. 63

¹⁶ The Role of Lao PDR in the Ivory Trade pg. 35

about ten elephants per annum,¹⁷ which ultimately serves as a conservative estimate given that this estimate relies on actually locating elephant carcasses or recording the prolonged disappearance of a consistently studied elephant specimen residing on a reserve. The annual poaching estimate of ten elephants may seem like a low number, hardly a significant statistic compared to poaching rates of other countries, but the loss of ten elephants a year is considerable given the already low population of elephants residing in Lao PDR. Not to mention the elephants' exceptionally low replenishment rate of elephant populations, due to low breeding rates and 22-month gestation period.

In short, the international ban on ivory has not accomplished its intended purpose. If anything, ivory's near prohibition has exacerbated the Laotian Elephants' population decline by driving a vast majority of the trade underground; thereby empowering corrupt government officials, crime syndicates, and para-military organizations.¹⁸ Simultaneously, these regulations have placed practically all control of elephant populations into the hands of central authorities, eliminating private incentive, if not the possibility in general, to sustain elephant populations; whereby otherwise enterprising entrepreneurs are either deterred from entering the market entirely or enter the illicit ivory trade.¹⁹ Both of which ultimately resulting in a non-replenishing consumption of elephants for the purpose of meeting the demands of the suppressed ivory market.

¹⁷ Current Status of the Asian Elephant in Lao PDR pg 64

¹⁸ Has International Law Failed the Elephant? Pg. 19

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The Lumber Industry

Lumber and the Laotian Elephant

A unique factor of decline for the Laotian Elephant, and other Asian Elephants throughout India, Thailand, Myanmar, etc., is their relationship with the Lumber Industry, wherein they are a centuries old factor of production.²⁰ For centuries, elephants have been used as manual labor in the Lumber Industry, procured at a young age and domesticated for the express purpose of transporting timber products, a purpose at which they are significantly more efficient than other draught animal substitutes. Such utilization of the Laotian Elephant continues even today due to, apart from their obvious size and strength, the, “rugged topography of the country and its poor economic conditions [which] make the use of machinery more or less impossible.”²¹ The distribution of the majority of domesticated elephants, in the northwest province of Sayaboury and the southwest province of Champasak,²² is a likely reflection of this advantage in utilization.

Although the continued use of draught animals within the Lumber Industry seems out of place during the modern era, a single elephant can haul logs in excess of 3,000 pounds.²³ Not to mention, unlike modern machinery, the use of elephants negates many of the problems subpar supply lines to isolated production locations since elephants employed by the Lumber Industry are fueled by land subsistence instead of costly refueling shipments. “[Elephants] enter and exit

²⁰ The Care and Management of Domesticated Asian Elephants in Lao PDR pg. 178

²¹ Lao People’s Democratic Republic Forestry Outlook Study. Pg. 178

²² The Care and Management of Domesticated Asian Elephants in Lao PDR. Pg. 175

²³ Working Elephants. Pg. 86

the forest on narrow paths, obviating the need for an extensive network of logging roads.”²⁴ And given the relative sparsity of transport networks within the Lao PDR borders this allows for marginal Lumber Industry activity to occur. However, as the number of domesticated elephants continue to decrease and the transportation network and general prosperity of the region increases, the historic revealed preference of elephant labor in this industry will likely decline if not disappear; this decline in elephant demand is already a factor for elephant decline in neighboring Thailand.

The reason for the Lumber Industry identification as a factor of decline for the Laotian Elephant is twofold. First, and most prominent, is the fact that the Lumber Industry in the Lao PDR is notorious for its destructive deforestation, responsible for the reduction of forest cover from an estimated 70% forest cover in the mid-1960’s to its current 46.7%.²⁵ Deforestation, it should go without saying, increasingly limits the habitat possibilities of the Laotian Elephant given that their habitats of choice are forests. Secondly, the exhaustive labor practices of the Lumber Industries; these practices being shared by their neighboring Southeast Asian counterparts. Although discussed in many articles as well as U.N. reports, the aspects of exhaustive labor seems to be the topic of environmentalists and political scientists rather than the economist, an unfortunate trend given the economic nature of the problem.

²⁴ Working Elephants. Pg. 83

²⁵ The Struggle over Lao PDR’s Forests: New Opportunities for Improved Forest Governance? Pg. 4

Deforestation in the Lao PDR

For reasons of resource availability and population sparsity, Laos has long been a region where the Lumber Industry could thrive. Around the mid-1960's what is now the Lao PDR had a total forest cover estimated to be around 70% of the country.²⁶ Such an abundance of lumber resources has provided the country with ample opportunity to capitalize on the lucrative export of valuable tropical timber products to regional and global markets by expanding national lumber operations. With the formation of the new communist government under the Pathetlao in 1975²⁷ the New Lao PDR did just that; under the newly formed communist government forest cover dropped from around the mid-1960's estimate of 70% to a mere 47% in 1987.²⁸ "The volume of logs (roundwood) removed for industrial purposes increased by about 70 percent between 1975-77 and 1985-87, to about 330,000 cubic meters."²⁹ Such rampant deforestation having been the result of socialist planners' objective to increase agricultural development, an objective necessitating the increase in the Lumber Industry's output to clear arable land.³⁰

The situation began to change though, leading up to the fall of the Soviet Union in 1991, as the Lao PDR began to normalize trade relations with its neighbors and adopt more market style trade policy. So called market-economy reforms were introduced in 1986 with the intent of curbing the inefficiencies of the previous national planning by encouraging the private sector; however, due to the impotence of the reforms, coupled with pernicious illicit logging operations, deforestation continued. This continuance inevitably leading to a ban on timber exports in 1988:

²⁶ The Struggle over Lao PDR's Forests: New Opportunities for Improved Forest Governance? Pg. 4

²⁷ COIN Paper about new government?

²⁸ Lao People's Democratic Republic Forestry Outlook Study. Pg. 8

²⁹ Laos: A Country Study. Pg. 161

³⁰ Lao People's Democratic Republic Forestry Outlook Study. Pg. 8

The government needed to reconcile its opposing objectives of decentralized forestry management and environmental protection. In January 1989, the government imposed a ban on logging—initially announced in January 1988 as a ban on the export of unprocessed wood—although exemptions are granted on a case-by-case basis. This measure was followed by the imposition of high export taxes on timber and other wood products, included in the June 1989 tax reforms. Toward the end of 1989, logging was again permitted, but only based on quotas extended to individual forestry enterprises.³¹

Ultimately, this cycle would continue to the present with the years 1991 and 2016 both seeing a return of logging bans, all of which attempting, and failing, to mitigate illicit logging operations and curb the rate of deforestation. This is apparent within Asian Development Bank reports, which show that after each subsequent timber export prohibition the corresponding decrease in exports was closely followed by an increase back to previous levels.³²

Illicit Lumber Operations

As may be readily apparent, evidenced by the extensive loss of forest land coverage and its consistent continuity, elephants have lost vast areas for potential habitation with little sign of long-term sustainability, even with intermittent efforts at reform.

The prevalence of illicit logging operations within Laos has been an integral component in the decade's long process of deforestation, a component which stems from the underlying cause of deforestation itself.

³¹ Laos: A Country Study. Pg. 161

³² Laos: A Country Study. Pg. 161

Impact on Laotian Elephants

The significance deforestation has played in the loss of elephant habitat is of clear concern and, to make matters worse, elephants were often employed as labor in the process of clearing old habitats. Their use as a factor of production was especially prevalent at the onset of the decades of rampant deforestation, but of course, has decreased with the passage of time as domesticated elephant populations have declined and available capital in the country has increased.

Even though the Lao PDR was not a signatory to the CITES convention until 2004, the political pressure and regulations imposed by previous international signatories still had an effect within Laos. For example, “the government of Lao PDR banned the capture of elephants from the wild for domestication in the late 1970’s.”³³ This, and many other regulations within Laos, reflects the mirroring of Laotian regulatory measures to those of the international community in placing elephant populations under more centralized management. Such regulations inevitably lead to illegal domestication along with the already present poaching problem, these illegally domesticated elephants are often used alongside legal elephants for labor intensive production.

³³ Current Status of the Asian Elephant in the Lao PDR

Agriculture

Agriculture and the Laotian Elephant

The practice of agriculture is an integral part of the history of Laos, a history in which the elephant once again contributed to the production process; wherein, they facilitated the clearance of land and transportation of products.³⁴ Similar to industries such as the lumber industry, the rugged terrain of the Lao PDR and the relatively poor level of development meant that the implementation of elephants for these tasks has continued into the modern era. Increasingly; however, the decline of the elephant population, coupled with a rising level of development in the Lao PDR, has resulted in a gradual shift away from using elephants as draught animals in the agriculture industry in favor of modern machinery. This transition has had, as with the lumber industry, the unfortunate effect of limiting the convertibility of the Laotian Elephant as a profitable factor of production while concurrently their habitat is becoming increasingly profitable to the growing agricultural industry.

Although the use of elephants in the field of agriculture is not as prevalent today as it may be in the lumber industry, as it is rarely mentioned in the literature of working elephants at all, elephants were once used extensively by the Lao people in the field of agriculture. Just as elephants could be used to transport supplies to logging sites or extract fallen timber, so too could elephants be used to clear land for the purpose of cultivating crops and transport goods.³⁵ Their use in the agricultural industry; however, would appear to have been marginal since the decline in the elephant population and the inability to domesticate new elephants from the wild

³⁴ The Care and Management of Domesticated Asian Elephants in Lao PDR. Pg 178

³⁵ Ibid.

population saw the vast majority of the captive elephant population converted to the roles of either lumber or tourism. “Traditionally utilized for transportation and small-scale village use, the majority of captive elephants in Laos are now employed in the professional logging or tourism industries.”³⁶ Unsurprisingly, this conversion from transportation and small-scale village use is due to changes in the demand for elephant services and their mahout handlers. Mahouts could make significantly more money when employing their elephants in the logging industry as compared with agriculture; furthermore, although tourism earns significantly less than logging it still, generally, generates more revenue for the mahout than agriculture and has added job security and lower workload.³⁷

Although the relevance of the Laotian elephant in the field of agriculture is reaching its end the importance of agriculture to the Lao PDR continues. As of 2018, nearly 65%³⁸ of the population of the Lao PDR was listed as living in a rural area, with 66%³⁹ of males and 69%⁴⁰ of females in Laos being employed in the agricultural industry. Even though agriculture as a percent of GDP has declined to just below 16%,⁴¹ land used for agriculture continues to expand. In 1961, land employed for the use of agriculture was 15,500,000km² and increased to 23,690,000km² in the year 2016.⁴² Although this growth in land concessions and conversion of land for the purpose of agricultural don’t inherently precipitate interference with potential

³⁶ Population viability of captive Asian elephants in the Lao PDR. Pg 2

³⁷ Population viability of captive Asian elephants in the Lao PDR.

³⁸ <https://data.worldbank.org/topic/agriculture-and-rural-development?locations=LA>

³⁹ <https://data.worldbank.org/indicator/SL.AGR.EMPL.MA.ZS?locations=LA>

⁴⁰ <https://data.worldbank.org/indicator/SL.AGR.EMPL.FE.ZS?locations=LA>

⁴¹ <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=LA>

⁴² <https://data.worldbank.org/indicator/AG.LND.AGRI.K2?locations=LA>

habitats of the Laotian Elephant, "...a considerable share of the granted land is located in areas zoned as 'conservation forest' (almost 25,000 ha)."⁴³

Clearly, habitable land of the Laotian elephant is not only under threat by the practices, both legal and illegal, of the lumber industry but are, and have, been subject to displacing pressures from increased demand for arable land for the purpose of agriculture. This increased demand for arable land and the subsequent land clearance is in response to a growing development of the Lao PDR's agricultural industry. Development, which is supported by both the Lao PDR's government and neighbors of the Lao PDR; neighbors who are often granted lucrative land concessions for the purpose of cultivating cash-crops.⁴⁴ The cultivation thereof no longer employing the Laotian Elephant, due to their marginal profitability, but; instead, will increasingly consume their potential habitats.

Scars of War

The 2nd Indo-China War and the Laotian Elephant

The Lao PDR is no stranger to war, from ancient times to the present, the people of Laos have experience countless conflicts throughout their remote nation.

⁴³ On the right path? Land concessions in Laos. Pg 3

⁴⁴ On the right path? Land concessions in Laos.

III. Property Rights and Entrepreneurship

Land Tenure in the Lao PDR

Tenuous Property Rights

The Lao PDR, although transitioning to a more market based economy, still clings to its founding tenets of collectivism through authoritarian means.

Ownership and Entrepreneurship

A Future for the Laotian Elephant

The purported “factors of decline” as described by the conservationists of the world are not the true factors of decline but are merely processes which are the natural result of the real problem.

IV. Conclusion