Cigarette Tax and Price:
Affordability and Impacts on Consumption and Revenue

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This policy paper is based on the research paper “Cigarette Affordability in Lao PDR and the Impact of Tobacco Tax Increases on Government Revenue and Public Health, 2010” by Mr. Thammaloth Rasphone, Tax Department, Ministry of Finance Lao PDR.

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FACT SHEET

Growing smoking prevalence and tobacco-related health care costs
In 2003, the smoking prevalence among adults (above 18 years old) in Lao PDR was 40.3% (67.7% of males and 16% of females). The poor smoke more than the rich; 44.8% of smokers reside in poorer rural areas, and 27% reside in affluent urban areas. In addition, among the ethnic groups, the smoking prevalence of Kamou ethnic group is the highest (57.8%). As a result, Lao PDR health care costs due to smoking-related diseases were estimated to be as high as 28,507,000,000 Kip (USD 3,341,577).

Much room to raise taxes
Although government revenue from tobacco tax has slowly increased over the past several years, its contribution to the total government revenue remains small. This is largely because of the 25-year Investment License Agreement between Lao government and the tobacco industry signed in 2001, allowing a five-year profit tax holiday (2002-2006), and a fixed lower excise tax rate (15%-30%) for 25 years. As a result, the actual tax rate applied at present is much lower than the rate (55%) required by Lao PDR’s Tax Law 2005. In addition to depriving the government of revenues, the low tax rates keep cigarette prices low and do not help to curb cigarette consumption in the country.

Increasing affordability of cigarettes
While nominal prices of expensive cigarettes have increased in the past ten years, prices of local brands that are considerably cheaper have not increased much at all. Additionally, when looking at affordability of cigarettes in Lao PDR, despite expensive brands having increased in nominal price (around 18,000 Kip in 2010), they have in fact become more affordable over the past decade, and local brands have also similarly become more affordable over time. This is due to Lao PDR’s economic growth, household income growth, and the limited taxes imposed on cigarettes.

Positive fiscal and health impacts of increasing taxes
Simulations of an additional specific excise tax (500 Kip in 2011, 1,000 Kip in 2012 and 1,500 Kip in 2013), and a health tax of 200 Kip per pack beginning 2012 show that the government revenue from these tobacco tax increases will grow significantly to 162,885 million Kip in 2011, 270,722 million Kip in 2012, and 347,043 million Kip in 2013, while the industry revenue will also grow, even surpassing the government’s revenue. With these additional specific taxes, the smoking prevalence will also drop; however, the decreases in prevalence rates will be very small (0.72% lower in 2011, 0.57% in 2012 and 0.47% in 2013).

Policy Recommendations
The government should continue to raise additional specific excise taxes as the most effective means to impose higher tax on tobacco products. The additional specific excise tax should increase yearly to be in line with the World Bank’s recommendation. In addition, the dedication of 200 Kip per pack from the additional tobacco tax revenue should be provided to health promotion and tobacco control purposes. Ministry of Health should update the health care costs through the regular nation-wide survey whereas Ministry of Finance should annually undertake the study on cigarette affordability to keep track of cigarette consumption rate and price trend. Ministry of Finance should also work closely with the Ministry of Industry to agree on prices that are high enough to reduce tobacco consumption, and to prevent initiation by the youth population through an annual fixed-priced policy.

1 The Lao PDR Health Survey 2003
I. Introduction and background

Smoking Prevalence

In 2003, the smoking prevalence rate in Lao PDR was 40.3% among adults (above 18 years old), 67.7% among adult males, 18% among adult females. Smoking prevalence was higher in the poorer rural areas (44.8%) than in the more affluent urban areas (27%), indicating that the poor smoke more than the rich. The survey also revealed smoking prevalence rate among the various ethnic groups. The Kammou ethnic group has the highest prevalence rate (57.8%) followed by the Laolum (36.5%), Hmong (24.9%) and other ethnic groups (52.2%).

Tobacco Tax Revenue Trends

Although government revenue from tobacco taxes has been slowly increasing from 19,782 million Kip in 2003 to 78,111 million Kip in 2008, its contribution to total government revenue has remained small, increasing only from 2.10% to 2.39%.

Tobacco Taxation System

The 25-year Investment License Agreement (ILA) between the National Committee for Planning and Investment and the tobacco industry signed in 2001 (valid until 2026) has become a major obstacle to increasing excise taxes on tobacco. The contract allows a five-year profit tax holiday (2002-2006), and a lower excise tax rate for 25 years. According to the ILA, if production costs are not more than 1,500 Kip per pack of 20 cigarette sticks, an excise tax rate of 15% will be applied, and a 30% rate will be applied on cigarettes produced at a higher unit cost. Evidently, these rates are much lower than the ceiling rate of 55% required under Lao PDR's Tax Law of 2005. Currently, the production cost per pack as reported by tobacco companies is approximately 764 Kip, excluding the costs of labour, royalties, and miscellaneous; if included, the production costs would rise to more than 1,500 Kip, allowing the government to impose a 30% excise tax rate. In order to offset the government losses due to the ILA, the government issued decrees in 2010 to collect value-added tax (VAT, set at 10% of the product retail price) and an additional specific excise tax of 100 Kip per pack, in addition to the limited ad valorem tobacco excise rates stipulated in the ILA. Thus at present, three types of tobacco tax are applied to locally produced cigarettes: (1) ad valorem excise tax, (2) additional specific excise tax, and (3) value-added tax (VAT). The Customs Department is responsible for controlling the sales of imported cigarettes and issues different types of customs stamps for duty-paid cigarettes and duty-free cigarettes.

Health Care Costs of Tobacco Consumption

Tobacco smoking causes a wide variety of serious diseases including stroke, chronic obstructive pulmonary disease (COPD) and lung cancer. The total national costs of in-patient health care of these three smoking-related diseases was estimated to reach 28,507,000,000 Kip (USD 3,341,577) representing 0.80% of Lao PDR’s GDP and 22% of its national health expenditure. Households directly financed 77% of these costs; the rest was financed either by the government (21%) or by the insurance sector (2%).

II. About this research

Because economic growth coupled with low cigarette prices contribute directly to rising cigarette consumption, there is a need to examine the level of cigarette affordability in terms of percentage of income used to purchase a pack of cigarettes, the trend of affordability over time, and the fiscal and public health impacts of tax increases.

This research therefore has two important objectives:

1. To study the affordability of tobacco in Lao PDR.
   a. To establish at least two appropriate affordability measures to be used in the analyses of the affordability of tobacco in Lao PDR.
   b. To study tobacco affordability trends over time in Lao PDR using the established affordability measures. To study the

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2. fiscal and public health impact of tobacco tax increases in Lao PDR.
   a. To study the impact of tobacco tax increases on cigarette prices, excise tax revenue, and industry revenue.
   b. To study the impact of tobacco tax increases on cigarette consumption, smoking prevalence, and smoking-related mortality

Such findings would indicate an appropriate level of cigarette excise burden to make cigarettes less affordable in Lao PDR.

In particular, this research uses measures such as Relative Income Price developed by Blecher and van Walbeek in their cigarette affordability model\(^4\) and the “percentage of daily wage” measure for analysis based on secondary data sources on cigarette price and income in the past 10 years.

The simulation model introduced by van Walbeek\(^5\) was used to study the fiscal and public health impact of tobacco taxes.

III. Research results and analysis

A. Cigarettes are becoming more affordable

While nominal prices of expensive cigarettes have increased in the past ten years from around 10,000 Kip in 1999 to 18,000 Kip in 2010, nominal prices of cheaper local cigarettes have remained stable without much increase (Figure 1). Thus, local brands are much cheaper and more affordable to the majority of consumers. One of the main reasons for stagnant cigarette prices is the government’s ILA with the tobacco industry.


\(5\) Van Walbeek C. A simulation model to predict the fiscal and public health impact of a change in cigarette excise taxes. Tobacco Control 2010; 19 (1), 31–36.
As a measure of affordability, the Relative Income Prices (RIP) of cigarettes have decreased over time. Although expensive brands have increased prices, they have in fact become more affordable over the years as have the local brands (Figure 2). It is expected that the cigarette affordability rate will increase even more due to economic and income growth, as well as the government’s limitation in increasing excise tax on cigarettes.

**Figure 2. Relative Income Prices (RIP) of cigarettes in Lao PDR, 1999 – 2010**

When compared with rice, cigarettes have become increasingly more affordable over the past 10 years with consistent price declines noted for expensive, average-priced, and cheap brands, but more so for expensive brands. Significantly, one kilogram of rice (an essential good) costs more than average-priced and cheap cigarettes (harmful products). Compared with eggs, expensive and average-priced brands have become more affordable overtime, while cheap brands have remained affordable despite a small increase in relative price in the past few years. Similarly with rice, it costs much more to buy a dozen eggs (a food product) than a pack of average-priced and cheap cigarettes that are harmful to health.

Cigarette prices also have declined somewhat or remained unchanged over the past 10 years in comparison with minimum wages. This means that as a result of economic growth in Lao PDR and a much slower rise in cigarette prices, a poor minimum-wage earner can afford to purchase at least two packs of expensive cigarettes per day and ten or more packs per day of average-priced and cheap cigarettes.

**B. Impact of raising taxes**

In the first of four scenarios, based on a retail price of 4,000 Kip per pack for the popular cigarette brand in the year 2010, if an additional specific tax of 100 Kip is collected per pack, and the total tax collected per pack is 579 Kip (Table 1), then the total cigarette tax revenue will be over 91,706 million Kip, whereas the industry revenue will be 522,954 million Kip; however, but given the very small increase in tax and price, there are no expected lives saved from a reduction in consumption (Table 2).

In the second scenario, if the popular cigarette brand is sold at 5,000 Kip per pack in the year 2011 and the additional specific tax is increased to 500 Kip per pack, then the total tax collected per pack will be 1,077 Kip (Table 1), the total cigarette tax revenue will be 162,885 million Kip, and the industry revenue will increase to 575,460 million Kip but the smoking prevalence will drop by less than 1% (Table 2).
In the third scenario, if the popular cigarette brand is sold at 6,000 Kip per pack in the year 2012, the additional specific tax is increased to 1,000 Kip per pack, and the health tax is collected at 200 Kip per pack, then the total tax collected per pack will be 1,855 Kip (Table 1), the total cigarette tax revenue will be 270,722 million Kip, and the industry revenue will increase to 586,309 million Kip, but there will still be only a small reduction of the smoking prevalence and few lives saved (Table 2).

In the fourth and last scenario, in the year 2013, if the popular cigarette brand is sold at 7,000 Kip per pack, the additional specific tax is increased to 1,500 Kip per pack, and the health tax is collected at 200 Kip per pack, then the total tax collected per pack will be 2,452 Kip (Table 1), the total cigarette tax revenue will be 347,043 million Kip, and the industry revenue will increase to 624,682 million Kip, while the smoking prevalence will drop only slightly by another by 0.47% (Table 2).

Table 1: Tax Impact Simulation Data Inputs

<table>
<thead>
<tr>
<th>(Kip)</th>
<th>Year 2009 (Baseline)</th>
<th>Year 2010 (Scenario 1)</th>
<th>Year 2011 (Scenario 2)</th>
<th>Year 2012 (Scenario 3)</th>
<th>Year 2013 (Scenario 4)</th>
</tr>
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<tbody>
<tr>
<td>Retail price of popular brand</td>
<td>3,000</td>
<td>4,000</td>
<td>5,000</td>
<td>6,000</td>
<td>7,000</td>
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<tr>
<td>Total cost of production</td>
<td>764</td>
<td>764</td>
<td>813</td>
<td>893</td>
<td>853</td>
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<td>Ad valorem excise tax</td>
<td>101</td>
<td>115</td>
<td>122</td>
<td>128</td>
<td>134</td>
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<tr>
<td>Additional specific excise tax</td>
<td>-</td>
<td>100</td>
<td>500</td>
<td>1,000</td>
<td>1,500</td>
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<tr>
<td>VAT</td>
<td>204</td>
<td>364</td>
<td>455</td>
<td>527</td>
<td>618</td>
</tr>
<tr>
<td>Health Tax</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Tax revenue per pack</td>
<td>305</td>
<td>579</td>
<td>1,077</td>
<td>1,855</td>
<td>2,452</td>
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</tbody>
</table>

Table 2: Tax Impact Simulation Results

<table>
<thead>
<tr>
<th>(Kip)</th>
<th>Year 2009</th>
<th>Year 2010</th>
<th>Year 2011</th>
<th>Year 2012</th>
<th>Year 2013</th>
</tr>
</thead>
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<tr>
<td>Ad valorem excise tax revenue</td>
<td>15,900,490,016</td>
<td>18,352,804,396</td>
<td>18,432,931,179</td>
<td>18,663,250,833</td>
<td>19,002,293,170</td>
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<td>Additional specific excise tax revenue</td>
<td>-</td>
<td>15,821,383,100</td>
<td>75,668,847,205</td>
<td>149,932,057,492</td>
<td>212,261,577,131</td>
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<tr>
<td>VAT/ sale tax revenue</td>
<td>15,900,490,016</td>
<td>57,532,302,181</td>
<td>68,783,592,413</td>
<td>76,940,746,026</td>
<td>87,478,473,404</td>
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<tr>
<td>Health tax revenue</td>
<td></td>
<td></td>
<td></td>
<td>29,186,411,498</td>
<td>28,301,543,617</td>
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<tr>
<td>Total government revenue</td>
<td>31,800,980,032</td>
<td>91,706,489,678</td>
<td>162,885,370,797</td>
<td>270,722,465,849</td>
<td>347,043,887,322</td>
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<tr>
<td>Total industry revenue</td>
<td>410,469,859,93</td>
<td>522,954,243,757</td>
<td>575,460,119,144</td>
<td>586,309,791,198</td>
<td>624,682,383,439</td>
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<tr>
<td>Quantity consumed (packs)</td>
<td>158,213,831</td>
<td>158,213,831</td>
<td>151,337,694</td>
<td>145,932,057</td>
<td>141,507,718</td>
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<tr>
<td>Smoking prevalence (%)</td>
<td>40</td>
<td>40</td>
<td>39.28</td>
<td>38.71</td>
<td>38.24</td>
</tr>
<tr>
<td>Lives saved (persons)</td>
<td>8,708</td>
<td>6,998</td>
<td>5,838</td>
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</table>
IV. Policy Recommendations

While the government has already started to implement a specific tobacco tax in order to increase government revenues, the simulations show that even if it increased the additional specific excise tax to 500 Kip in 2011, 1,000 Kip in 2012, and 1,500 Kip in 2013, the industry will still earn more revenue than the government, and the smoking prevalence will not drop significantly. Therefore, the government should increase the additional specific excise tax even further each year, in order to gradually achieve the levels recommended by the WHO and World Bank, and thus be able to reduce cigarette affordability, control smoking prevalence, and prevent the initiation of smoking by the youth and the poor.

With the additional tax revenue gained, the government should establish a health promotion fund; 200 Kip per pack from the additional tax revenue should be dedicated to health promotion and tobacco control purposes. Thus, the Ministry of Health will be able to more effectively deal with tobacco consumption, provide public education on the dangers of smoking, and promote healthier lifestyles and habits for the public.

The health tax on tobacco products (200 Kip/pack) should be maintained. This measure will generate more tax revenue and help promote stronger health policies within the country.

The Ministry of Health should work closely with the Ministry of Finance to update the information on health care costs through a nationwide survey, estimating health care costs related to tobacco consumption, so that future effective tax measures can be put in place and government officials are well informed about the link between tobacco consumption and health costs in the country.

The Ministry of Finance should undertake studying tobacco affordability in Lao PDR and forecast annually the impact of tax increases so as to keep track of the impact of price changes on affordability. In addition, they should work closely with the Ministry of Industry to agree on prices that are high enough to reduce smoking prevalence and to prevent initiation by the youth population. In this case, an annual fixed-price policy could be applied in agreement with the Ministry of Industry.

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Vision:
Towards a healthy, tobacco-free ASEAN

Mission:
Working together to save lives by accelerating effective implementation of the FCTC in ASEAN countries