

Sri Lanka

Overview of

TOBACCO USE, TOBACCO CONTROL LEGISLATION, AND TAXATION

World Bank Group
Global Tobacco Control Program
Country Brief

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Sri Lanka

Overview of Tobacco Use, Tobacco Control Legislation, and Taxation

A Country Brief

Executive summary

Sri Lanka ratified the Framework Convention on Tobacco Control in 2003 and implemented some comprehensive tobacco control policies. From June 1, 2015, health warnings on cigarette packages in Sri Lanka have to cover 80% of the large sides.

In 2005-2006, about 38.0% of men and less than 1% of women were current tobacco smokers in Sri Lanka. The prevalence smoking among men was about 40% in 2005-2006 and decreased to about 32% in 2009-2014.

The volumes of cigarette production in Sri Lanka were fairly steady at the level of 5.2 billion sticks in the late 1990s, and then the production gradually decreased to about 4 billion cigarettes in 2013-2016.

The government has the power to change excise tax rates several times a year. The taxation system used for cigarettes is 5-tier specific. In 2005-2015, excise rates for most tiers were increased by more than 300%; however, the inflation rate for those eleven years combined was 260%; so, real cigarette prices did not change much.

In late 2014, the VAT liability on cigarettes was temporarily removed. For two years, excise was the only tax levied on cigarettes in Sri Lanka. While the excise rates were increased in 2014, the overall tax burden almost did not change. Such a shift between VAT and excise tax was the main factor of the excise revenue increase by 40% in 2015 as excise revenue mainly replaced VAT revenue.

The largest changes in cigarette taxation in Sri Lanka took place in October-November 2016:

- (1) Excise rates were increased by 26-28% for two higher tiers, by 37-40% for two middle tiers, and by 67% for the lowest tier;
- (2) The VAT rate was increased from 12% to 15%, and cigarettes were again made liable for VAT.

However, after the increase in cigarette tax burden in late 2016, in the first four months of 2017, the excise revenue from cigarettes and tobacco products declined by 17%, and cigarette production decreased by 31%.

The VAT-excise reverse shift was the main factor of excise revenue reduction in early 2017. The VAT revenue increased, and its increase was larger than the reduction in the excise revenue.

Another factor of revenue decline in early 2017 was forestalling: tobacco industry overproduced cigarettes to pay taxes before tax increases. As the tax increase was announced in July 2016, manufacturers had 4 months to increase cigarette production and taxable wholesales. In the first nine months of 2016, the cigarette excise revenue increased much higher than the excise rates. As the industry had large numbers of cigarettes in stocks, cigarette production and revenue decreased in early 2017.

Another factor behind cigarette sales reduction in Sri Lanka was the pricing policy of the tobacco industry. In 2008-2015, the industry increased its net-of-tax part of the price to a larger extent than inflation and excise increase required, and this resulted in reduced tax share in the final price. The final retail price increased

more than expected, and this higher price contributed to the reduction in tobacco consumption over recent years.

The cigarette tax increase in 2016 was high enough to increase cigarette prices, and it reduced tobacco affordability and tobacco consumption in Sri Lanka. The cigarette excise revenue decline in early 2017 was temporary, and strong tobacco taxation policy should be continued.

The following recommendations can help to ensure both the reduction in tobacco consumption and the increase in government revenues from tobacco taxes:

1. The excise tax rates for all kinds of cigarettes should be increased to the current excise rate of the most expensive cigarettes. This will minimize incentives to shift to cheaper products.
2. Then, the unified specific tax rate for cigarettes should be annually increased above the inflation and income growth to ensure the decrease in tobacco affordability.
3. Tax rates for bidis and other tobacco products should be increased at least to the same extent as cigarette excise rates to discourage the use of such products.
4. Some effective anti-forestalling measures should be introduced to ensure that extra revenue from tax increases goes to the authorities, rather than producers or importers of tobacco products.
5. Effective policies to counteract tobacco smuggling and other kinds of illicit tobacco sales should be implemented in line with the provisions of the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products.

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Introduction

The Objective of the Country Brief

This country brief presents an overview of current tobacco control legislation, tobacco use, and taxation policy in Sri Lanka. Data and information were collected from various sources. The brief is intended to serve as the context for complementary assessments on different aspects of tobacco taxation in the country to be shared with government teams and other national and international stakeholders.

Tobacco control legislation

Sri Lanka ratified the Framework Convention on Tobacco Control on 11 November 2003, being the first country in Asia and the fourth in the world to do so.

Tobacco control policies

In 2006, Sri Lanka passed the National Authority on Tobacco and Alcohol (NATA) Act N° 27 that made it illegal to sell tobacco or alcohol products to minors under 21 years, required the inclusion of health warnings on product labels, increased the tax on cigarettes, restricted mass media advertising, and prohibited smoking in all public places [14, 26]. This document [26] also established the national body called NATA and specified its structure, powers, and mechanisms of executing its functions. The document also contains the prohibition on the installation of vending machines for dispensing tobacco product or alcohol product; prohibition of tobacco or alcohol advertisements and sponsorships. Free distribution of tobacco products was prohibited. Use of trademarks of tobacco products on any article which is not a tobacco product was forbidden. The documents introduced tests for constituents of tobacco products.

In July 2012, NATA issued Tobacco Products (Labeling and Packaging) Regulations, No. 01 of 2012 [27], which addressed the issue of false, misleading or deceptive messages on tobacco products packaging and introduced pictorial health warnings to cover 80% of the total area of a packet, package or a carton. The regulation also required that information on the relevant constituents and emissions should be printed on tobacco packages. Every cigarette manufacturer of the different brands of cigarette products shall ensure that, there shall be printed on any packet, package or carton containing cigarette product, only one type of pictorial health warning of each category as is set out in the Schedule to these regulations and such pictorial health warning shall be changed once in every six months. However, these regulations issued in 2012 were challenged by the tobacco industry, and in May 2014, the Sri Lanka Court of Appeal ordered the Ministry to amend the regulations and to reduce the allocated warning size to 50-60% of the package. On July 11, 2014, the Supreme Court of Sri Lanka approved the revised regulations and ordered the Ceylon Tobacco Company to display pictorial health warnings that cover 60% of the front and back panels of all packages by January 1, 2015 [28]. However, in February 2015, the Parliament passed a bill which increased pictorial warnings to 80%¹. This amends the National Authority on Tobacco and Alcohol Act No 27 of 2006. The warnings should include pictorials printed on both sides of every cigarette packet, package or carton containing cigarettes, and 80% of the total area of a packet, package or a carton. Health warnings have to be changed every six months. The pictorials, pictograms, and messages that can be used were made available by the National Authority on Tobacco and Alcohol. The manufacturers and importers of existing stocks of tobacco products were granted a grace period up to June 1, 2015, to comply with the provisions. With effect from 1 June

¹ <http://www.asianmirror.lk/news/item/7145-parliament-approves-80-percent-pictorial-warnings-on-cigarette-packets>

2015, health warnings on cigarette packages in Sri Lanka have to cover 80% of the large sides [29]. Increasing the size of the illustrated warnings on cigarettes packets to 80 % was one of the promises made in the 100-Day program undertaken by President Maithripala Sirisena².

As of 2016 [30], Sri Lanka is characterized by the use of all measures of the MPOWER package.

Complete smoke-free laws were reported effective in health care, educational and government facilities, indoor offices and workplaces and in public transport. Enforcement of these regulations was supported with relevant funds, and fines of the smokers and the establishments were required.

Smoking cessation help is provided through a toll-free telephone quit-line/help-line and smoking cessation support in most health care facilities. NRT and bupropion are available by prescription [30].

Ban of most tobacco advertising activities was introduced in 2006, as explained above. As of 2016 [30], tobacco advertising is banned in most media except for international ones.

Tobacco use

Tobacco use among adolescents and young people

In a survey of adolescents aged 11 to 18 conducted before 1990 [1], the prevalence of smoking in urban and rural children was 7.2% and 4.3% respectively. 0.5% of children were users of chewing tobacco or tobacco snuff.

Global youth tobacco survey [2] was conducted in Sri Lanka several times and the results were as shown in Table 1. The use of other tobacco products among male adolescents became higher in 2007-2011 compared to 1999; otherwise, the prevalence of tobacco use among adolescents remains stable.

Table 1. Tobacco use among young people

		1999	2003	2007	2011	2015
Current smokers of cigarettes (%)						
	Total	4.0	2.4	1.2	1.5	1.5
	Boys	6.2	1.3	1.6	2.8	2.9
	Girls	1.6	3.0	0.9	0.3	0.0
Current users of other tobacco products (%)						
	Total	7.2	7.0	8.6	10.0	3.7
	Boys	9.2	5.8	11.6	14.6	6.7
	Girls	5.0	7.9	5.6	5.4	0.7

Among medical students, the prevalence of cigarette smoking decreased from 4.1% (3.4 - 5.0) in 2006 to 3.2% (3.0 - 3.5) in 2011, and the prevalence of use of other tobacco products in these years was 3.6% and 3.0% respectively [2].

A survey conducted in 2004 among students aged 15-19 in southern provinces, found that the current prevalence of smoking was 10.6% among males and 0.0% among females [3].

² <http://www.sundaytimes.lk/150215/news/pictorial-warning-to-cover-80-of-cigarette-pack-law-from-friday-135928.html>

A survey carried out by the National Authority on Tobacco and Alcohol (NATA) revealed that there was a decrease in the number of school students who smoke cigarettes. In 2011, the percentage of school student smokers was revealed as 8%. According to the Director of NATA Dr. Palitha Abeykoon, the percentage has reduced to three percent in 2015. Dr. Abeykoon noted that there are around 40,000 school student smokers between the ages of 13 and 16³.

Tobacco use among adults

The 1991 survey that was confined to three districts found that 38%-51% of men (lowest in Colombo district, higher in the farming areas) and 1% of women currently used tobacco. Small percentages (5-9% for men) were previous users who had quit. The 2000 national survey (SLIS) found similar differentials across districts, but the prevalence was much lower among men (24% nationally), and a worrying rise of the prevalence among women to 6% nationally was found. The prevalence was highest in the 30-60 age groups, amongst people with low education, and those in the second and third lowest expenditure quintiles [4].

In a survey of 1565 adults conducted before 2005 [5], 41% of men were yearly smokers, 27.8% were monthly smokers and 21% were daily smokers. The corresponding figures for women were 3.4%, 2%, and 0.6% respectively. Higher prevalence rates were observed among less educated, middle-aged men who were from underprivileged families.

In a survey conducted in 2005-2006 among almost 5000 people aged 18 and over [6, 7], 38.0% of men vs. 0.1% of women were found to be current tobacco smokers. Smoking was associated with lower education, lower income, and middle age.

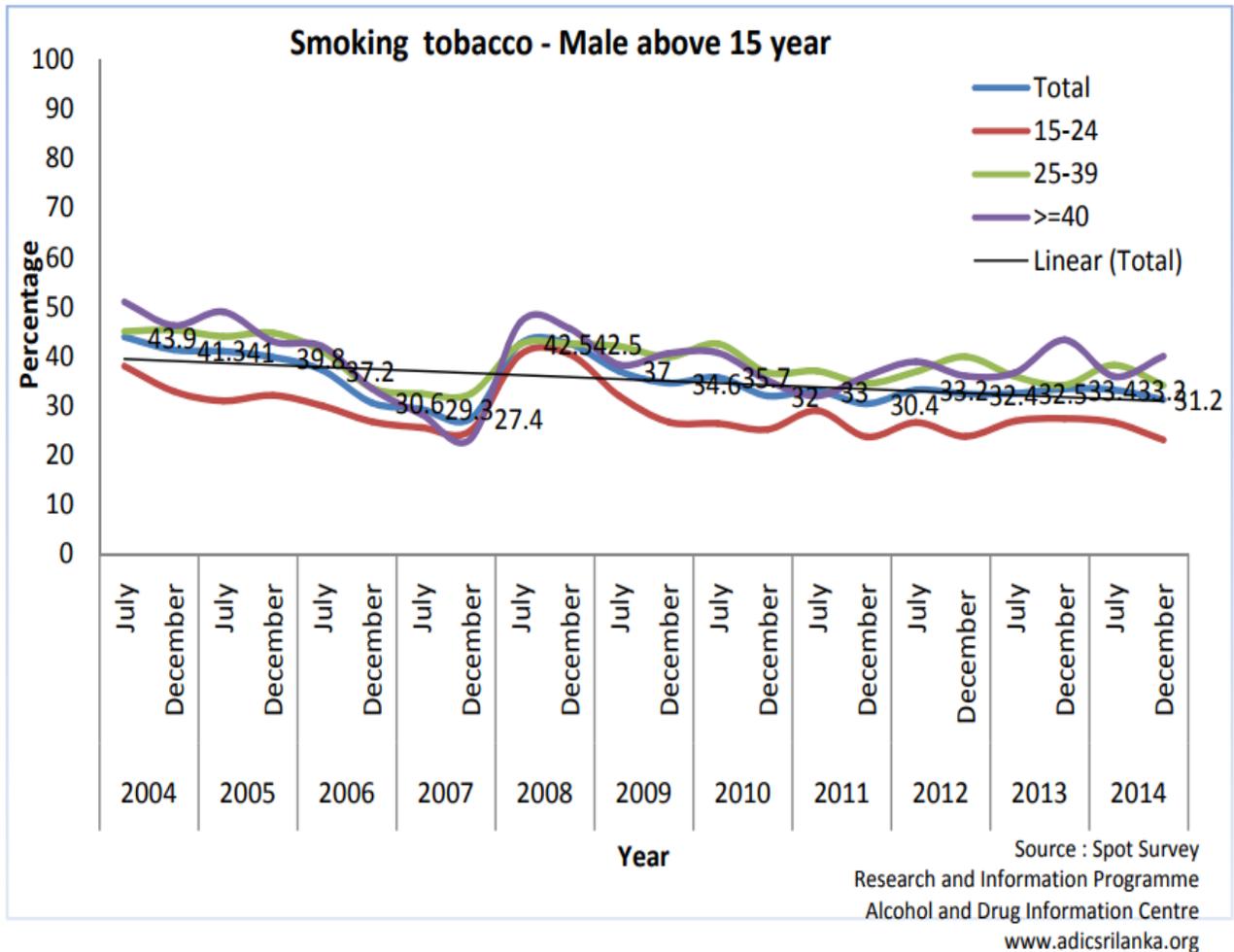
The Demographics and Health survey conducted in 2006-07 [8] found that less than 1 percent of ever-married women in Sri Lanka smoke cigarettes or use tobacco products.

The Non-Communicable Diseases Risk Factors STEPS Survey was conducted in 2003 in western provinces and in 2014-15 as a nationally representative survey of people aged 18-69. In 2003 [9], the prevalence of daily tobacco smoking was 16.6% among all, 32.6% among men and 0.7% among women. In the 2014-15 STEPS survey, the prevalence of current smoking was 15.0% (29.4% among men and 0.1% among women) while the prevalence of daily smoking was 10.2% (19.9% among men) [10]. Thus, the prevalence of daily smoking in the second survey (2014-15) is substantially lower (19.9% among men) than in the first one (2003 - 32.6% among men). However, these differences might arise due to sampling issues, as the prevalence of tobacco use among men in Sri Lanka was shown to be higher in urban areas than in rural ones [11]. The prevalence of current daily cigarette smoking was 7.9% (6.9-9.0) overall and 12.4% (11.1-13.7) among men [12]. Additionally, the 2014-15 STEPS survey measured that 26.0% of men, 5.3% of women, and 15.8% overall were current users of smokeless tobacco [12, 13]. Some 8.6% of the youth are current users of smokeless tobacco. And the prevalence was reported higher among rural and disadvantaged groups [13]. Because of the use of locally grown tobacco, as in other tobacco-growing countries, some significant but unknown fraction of tobacco use occurs via the consumption of illegal, unregulated products [14].

As seen from semi-annual spot surveys conducted by ADIC Sri Lanka among about 2500 men aged 15 and over [15], the male prevalence of tobacco use was around 40% in 2000-2006, dramatically decreased in 2007 to 29%, then increased to 42% in 2008, and later stabilized at about 32% in 2009-2014 (Figure 1). No information is available on the spot surveys in 2015-2017.

³ <http://newsfirst.lk/english/2016/07/decrease-school-student-smokers/142127>

Figure 1. Dynamic of tobacco use among men in Sri Lanka: data of spot surveys conducted by ADIC Sri Lanka.



GTSS data

The prevalence of smoking among school personnel decreased significantly from 12.9% in 2003 to 4.6% in 2007 and 4.1% in 2011.

In a survey of 2,073 adults aged 18 or above in southern areas of Sri Lanka conducted between 2006 and 2013, 35.9% of men and 0.4% of women were found to be daily tobacco smokers. The prevalence of smoking was higher among people aged 35-54 and those more educated [14].

Tobacco production

British American Tobacco (BAT) holds a monopoly share of the Sri Lankan tobacco market. The company owns 84.13% of the shares of the Ceylon Tobacco Company PLC Ltd (CTC). Philip Morris International (through company FTR Holding SA) owns 8.32% of the CTC shares. So, transnational tobacco companies own more than 92% of the only cigarette producer in the country. CTC is responsible for the entire manufacturing process from tobacco cultivation to cigarette production in Sri Lanka. CTC owns 99% of the market with the remaining 1% comprised of imported cigarettes. Almost 100% of the tobacco used for

cigarette manufacturing in Sri Lanka is cultivated in the country. CTC also exports its manufactured cigarettes, which contributes approximately 1% to its overall annual revenue. CTC employed a total workforce of just 1,426, of which 124 are direct factory employees⁴. In early 2017, CTC announced that it was compelled to make a 20% headcount reduction in its Colombo factory⁵.

According to FAO statistics [16], raw tobacco production in Sri Lanka was 18,602 tons in 1980 and then it gradually declined to 3,470 tons in 2002. In 2003-2014, annual tobacco production was rather stable – about 4,000 tons (Table 2).

Table 2. Tobacco and cigarette production, export and import in Sri Lanka

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Unmanufactured tobacco production, tons</i>	4390	4210	3710	4150	3770	3810	4200	3470	3620	5040	3322		
<i>Unmanufactured tobacco export, tons</i>			1399	1578	1278	686	695	708	861	1142	1162	880	
Cigarette production, million sticks	4859	4945	4791	4670	4467	4101	4286	4469	4320	4035	3777	4116	3789
Cigarette import, tons				45	73	54	83	171	181	298	148	169	
Cigarette export, tons				57	55	61	53	91	178	149	326	157	

Data sources: *Unmanufactured tobacco production* FAO [16]; *Unmanufactured tobacco export* – Central Bank of Sri Lanka. *Economic and Social Statistics of Sri Lanka, 2016*

http://www.cbsl.gov.lk/pics_n_docs/10_pub/_docs/statistics/other/econ_&_ss_2016_e.pdf; *Cigarette production* – Ministry of Finance. *Annual Reports* <http://www.treasury.gov.lk/web/guest/publications/annual-report>; *Cigarette import and export* – UN database <http://data.un.org/Search.aspx?q=cigarettes>

Cigarette production volumes were fairly steady between 1995 and 1999 averaging around 5.2 billion sticks [4], with a decrease to about 4.7 billion in 2000-2007. In 2008-2012, average annual cigarette production was 4.3 billion cigarettes, while it decreased to about 4 billion cigarettes in 2013-2016.

Tobacco taxation

Tobacco tax in Sri Lanka is governed by the Tobacco Tax Act⁶. The government can change excise tax rates several times a year. Currently, 5-tier specific system is used for cigarettes (Table 3).

Table 3. Excise tax rates for cigarettes (LKR per 1000)

Cigarettes (brand)	2005	2007	2008	2009	June 2010	Jan 2011	Oct 2011	March 2012	Oct 2012	July 2013	Oct 2014	Oct 2015	Oct 2016
Length below 60mm (Capstan)	1640	2215	2289	2289	2630	3465	3465	4037	4612	5722	6975	6975	11675
Length 60-67mm (Four Aces)	3137	4520	5215	5706	6246	6973	7540	8112	9258	10355	12675	12675	17375
Length 67-72mm (Bristol)	5088	7219	7991	8485	9028	9811	10381	10953	12100	12100	14660	14660	20500
Length 72-84mm (Gold Leaf)	5904	8850	9681	10715	11260	12108	13243	13819	14963	16610	21610	23750	30500
Length Exceeding 84mm (Benson)	6150	9870	11170	12710	13170	15000	16400	17100	18500	20000	25100	27240	34250

Data source. Ministry of Finance. *Annual Reports* <http://www.treasury.gov.lk/web/guest/publications/annual-report>

⁴ <http://www.lankaweb.com/news/items/2015/02/15/cigarettes-and-beedis/comment-page-1/>

⁵ <http://colombogazette.com/2017/01/09/government-lost-rs-13-billion-in-revenue-from-cigarettes/>

⁶ <https://www.parliament.lk/uploads/regulations/english/170.pdf>

In 2005-2015, the excise tax rates for most tiers increased by about 300%; however, the inflation rate for those eleven years combined was 260%.

The Nation-building tax (NBT) of 2% of the wholesale price is also levied on cigarettes. The value-added tax (VAT) rate was 15% in 2002-2008. From January 2009, the VAT rate was 12%. The VAT and NBT liability on cigarettes were removed from October 25, 2014⁷. For two years, excise was the only tax levied on cigarettes in Sri Lanka. The excise rates were increased also from October 2014 (Table 3) by 21-30%, but the overall tax burden almost did not change.

The largest changes in cigarette taxation in Sri Lanka took place at the end of 2016:

1. In October 2016, excise rates were increased by 26-28% for two higher tiers, by 37-40% for two middle tiers, and by 67% for the lowest tier.
2. From November 1, 2016, the VAT rate was increased to 15 percent, and cigarettes were again made liable for VAT and NBT.

From 2015, the tobacco industry also pays 40% corporate tax on profits [17].

Cigarette prices

In Sri Lanka, cigarettes of different price categories have different excise rates; however, brand *Gold Leaf* in 2005 had a market share of more than 50% [18] and over recent years its market share increased to 80%. We analyzed price trends for the brand Gold Leaf (Table 4) and for the cheap brand Capstan (Table 5), which had the second largest market share in 2009 [19]. Data on prices in 2009-2013 were taken from the industry report⁸ and data on prices in 2014-2016 were taken from media reports^{9 10 11 12}. As cigarettes are sold in packs with different numbers of cigarettes, we calculated price components per 1 cigarette of each brand.

Table 4. Price components of 1 Gold Leaf cigarette, LKR

	2008	2009	2010	2011	2012	2013	2014	2015	January 2016	October 2016	November 2016
Price	16	18	20	22	25	28	30	33	35	42	50
Excise	9.68	10.72	11.26	12.11	13.80	14.96	16.61	21.61	23.75	30.5	30.5
VAT	2.09	1.93	2.14	2.36	2.68	3.00	3.21	0	0	0	6.52
NBT	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0	0	0	1.0
Net-of-tax	3.9	5.0	6.2	7.1	8.0	9.5	9.6	11.4	11.3	11.5	12.0
Tax share, %	75.5	72.2	69.0	67.8	67.9	66.2	68.1	65.5	67.9	72.6	76.0

⁷ <http://archives.sundayobserver.lk/2001/pix/PrintPage.asp?REF=/2016/05/01/fin24.asp>

⁸ EQUITY RESEARCH. Ceylon Tobacco Company PLC. 31 October 2013
https://cdn.cse.lk/cmt/upload_report_file/460_1398260076495.pdf

⁹ <http://synergy.com/2016/10/new-cigarette-prices-in-sri-lanka-29438/>

¹⁰ <http://dailynews.lk/2016/11/01/local/97694>

¹¹ <http://www.onlanka.com/news/cigarette-prices-go-up.html>

¹² <http://www.hirunews.lk/94267/cigarette-prices-increased>

Table 5. Price components of 1 Capstan cigarette, LKR

	2008	2009	2010	2011	2012	2013	2014	2015	January 2016	October 2016	November 2016
Price	4	4	6	6	8	10	10	10	11	20	20
Excise	2.289	2.289	2.63	3.465	4.1	5.3	5.6	6	6.975	11.675	11.675
VAT	0.52	0.43	0.64	0.64	0.86	1.07	1.07	0	0	0	2.61
NBT	0.08	0.08	0.12	0.12	0.16	0.20	0.20	0	0	0	0.40
Net-of-tax	1.1	1.2	2.6	1.8	2.9	3.4	3.1	4.0	4.0	8.3	5.3
<i>Tax share, %</i>	<i>72.3</i>	<i>69.9</i>	<i>56.5</i>	<i>70.5</i>	<i>64.0</i>	<i>65.7</i>	<i>68.7</i>	<i>60.0</i>	<i>63.4</i>	<i>58.4</i>	<i>73.4</i>

In 2008-2016, excise rate for Gold Leaf cigarettes increased more than 3-fold, but tax share was almost the same in 2008 and 2016: 76% because net-of-tax part of the price also increased more than 3-fold. The similar situation is observed for Capstan cigarettes: both retail price and the net-of-tax price increased 5-fold, but the total tax share is still about 73%.

In the STEPS survey conducted in 2014-15 [12], the average sum spent on 20 manufactured cigarettes was LKR572.40. This average price is a little lower than the price of Gold Leaf brand (600 LKR per pack of 20), but taking into account consumption of cheaper cigarette brands, such average price looks quite reasonable.

Comparison of cigarette prices and taxes in Sri Lanka and neighboring countries

The WHO Global Tobacco Report, 2017 has information on cigarette prices and taxes in Sri Lanka and other countries of the WHO South-East Asia Region (SEARO) in 2016 [20] (Table 6).

Table 6. Cigarette prices and taxes in Sri Lanka and other SEARO countries

Country	Price of a 20-cigarette pack of the most sold brand			Taxes as a % of price of the most sold brand						<i>Net-of-tax part of the price, US\$</i>
	In reported currency	Reported currency	In US\$	Specific excise	Ad valorem excise	Total Excise	VAT/ Sales tax	Other taxes and duties	TOTAL TAX	
Bangladesh	100	BDT	1,28	0,00%	62,00%	62,00%	15,00%	0,00%	77,00%	0,29
India	158	INR	2,36	26,46%	0,00%	26,46%	16,67%	0,00%	43,12%	1,34
Indonesia	21 667	IDR	1,65	44,31%	4,43%	48,74%	8,70%	0,00%	57,44%	0,70
Maldives	47	MVR	3,05	0,00%	0,00%	0,00%	0,00%	53,19%	53,19%	1,43
Myanmar	850	MMK	0,72	35,29%	0,00%	35,29%	0,00%	0,00%	35,29%	0,47
Nepal	180	NPR	1,68	14,84%	0,00%	14,84%	11,50%	0,00%	26,35%	1,24
Sri Lanka	1 000	LKR	6,86	47,50%	3,93%	51,43%	10,71%	0,00%	62,15%	2,60
Thailand	86	THB	2,47	2,16%	64,77%	66,93%	6,54%	0,00%	73,48%	0,66
Timor-Leste	1,50	USD	1,50	25,33%	0,00%	25,33%	2,44%	0,23%	28,01%	1,08

We calculated the net-of-tax price of the most popular cigarette brand as: Price in USD * (1 – Total tax share). Cigarettes in Sri Lanka had the highest retail price in the Region, but it was partly caused by the highest net-of-tax cigarette price.

Tobacco affordability

Sri Lankan economist Nishan de Mel calculated the number of Gold Leaf cigarettes affordable on per capita income in 1980-2015¹³. According to his calculations, in 2000-2011 cigarettes in Sri Lanka became much more affordable.

In the current analysis, a modified tobacco affordability index (TAI) [21] is used to estimate the changes in tobacco affordability in 2007–2015. TAI is calculated as the percentage annual change in disposable income per capita divided by the tobacco price increase: $TAI = (\text{income increase}/\text{consumer price index tobacco} - 1) * 100$. A negative TAI value means that tobacco became less affordable, and tobacco consumption is expected to decrease.

As national statistics do not provide indicators of income at either the individual or household level for recent years, we used the World Bank indicator *Annual percentage growth rate of GDP per capita based on constant local currency*¹⁴. As the GDP change is expressed in constant (adjusted for the effects of price inflation) local currency, the price indicator also should be expressed in real (inflation-adjusted) terms. As the data for the consumer price index is not available, we used inflation-adjusted prices for Gold Leaf brand, which has 80% market share. For the inflation rate, we used the National consumer price index (NCPI)¹⁵ December to December previous year. As NCPI was not calculated before 2014, we used Colombo consumer price index (CCPI) for 2009-2013.

Calculations of TAI in Sri Lanka are presented in

Table 7.

Table 7. Cigarette affordability trends in Sri Lanka

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Price of 1 Gold Leaf cigarette, LKR	16	18	20	22	25	28	30	33	50
Nominal annual price increase (previous year = 100)	.	112.5	111.1	110.0	113.6	112.0	107.1	110.0	151.5
Inflation (previous year = 100)	.	103.5	106.2	106.7	107.5	106.9	105.3	104.2	104.2
inflation-adjusted annual price increase (previous year = 100)	.	108.7	104.6	103.1	105.7	104.8	101.8	105.6	145.4
GDP growth (previous year = 100)		102.8	107.2	107.6	108.3	102.6	104	103.9	103.2
Tobacco Affordability Index	.	-5.4	2.5	4.4	2.5	-2.1	2.2	-1.6	-29.0

In 2009, 2013 and 2015, cigarettes became slightly less affordable, but in 2010, 2011 and 2014, they were turning more affordable. In 2009-2015, combined cigarette affordability almost did not change. Only in 2016, cigarette affordability sharply decreased and some reduction of tobacco consumption is expected.

¹³ <http://www.dailymirror.lk/110319/Cigarette-taxes-need-Parliament-s-oversight>

¹⁴ <http://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG>

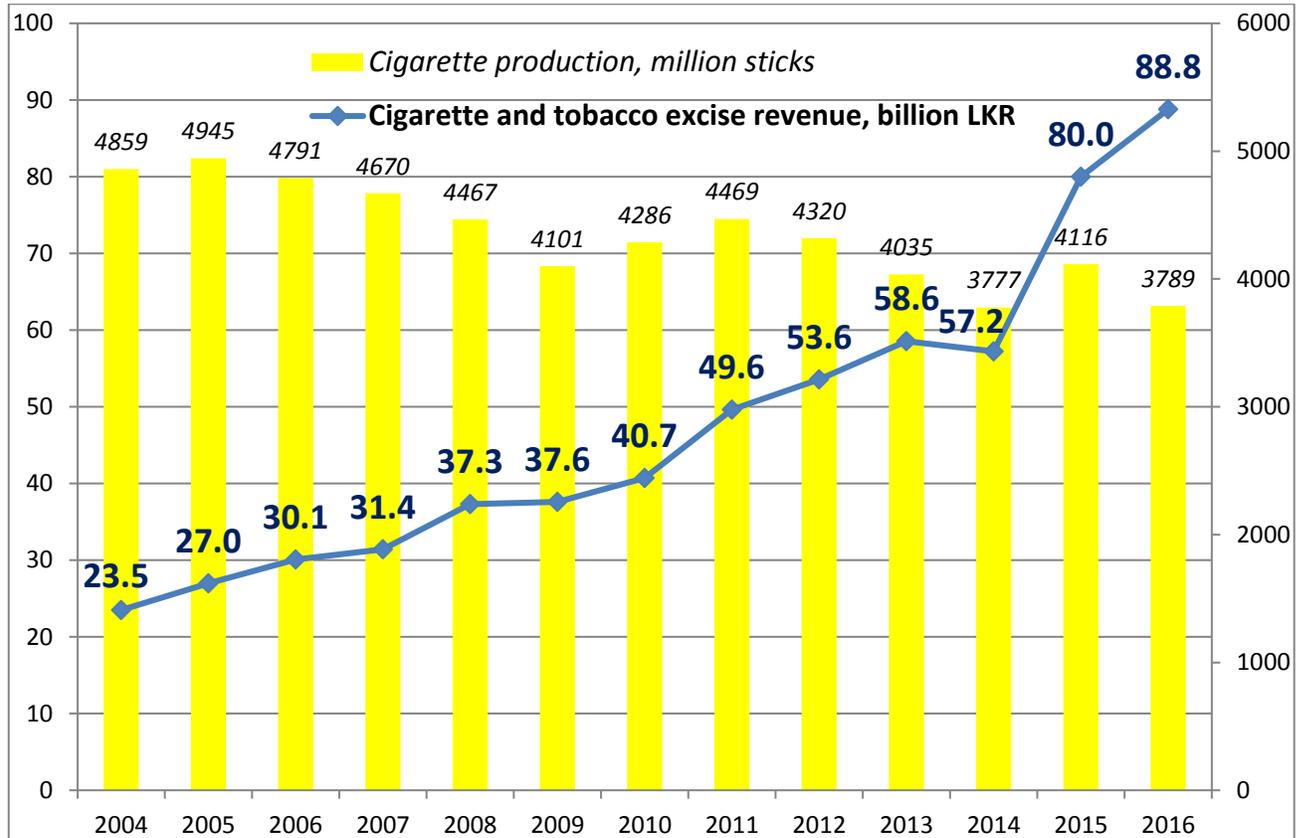
¹⁵ <http://www.statistics.gov.lk/page.asp?page=Inflation%20and%20Prices>

Tobacco excise revenue

The Ministry of Finance issues annual reports¹⁶ with data on cigarette and tobacco excise tax revenue and also issues reports with data for the first 4 months¹⁷ and 9 months¹⁸ in a year.

In 2004-2016, annual excise revenue increased almost 4-fold, while cigarette production decreased only by 12% (Figure 2).

Figure 2. Tobacco excise revenue and cigarette production in Sri Lanka.



The huge increase in excise revenue in 2015 was caused by the shift of excise burden from VAT to the excise (effective from November 2014), while total tax burden did not change much. Actually, excise revenue growth was caused by the reduction of VAT revenue. The cigarette price increase was rather small, and their production increased.

In the first four months of 2017, the excise revenue from cigarettes and tobacco products declined by 17.1 percent to 23,840 million LKR compared to 28,764 million LKR in the same period of 2016 [22]. The production of cigarettes decreased by 31 percent in January-April 2017.

Two years later, in November 2016, the VAT-excise shift was played back. The excise rates substantially increased (see Table 3), and the total tax burden increased even higher.

The VAT-excise shift was the main factor of the excise revenue reduction after the tax increases in October and November 2016. Cigarettes were made liable for VAT and NBT since November 2016, and it was the

¹⁶ <http://www.treasury.gov.lk/web/guest/publications/annual-report>

¹⁷ <http://www.treasury.gov.lk/web/guest/publications/mid-year-fiscal-position>

¹⁸ <http://www.treasury.gov.lk/web/guest/publications/fiscal-management>

main factor of the cigarette price increase. These two taxes resulted in the reduction of cigarette consumption and hence, the decreased excise revenues. At the same time, a significant increase in VAT revenue was recorded in 2016. VAT+NBT burden was about 25% of the excise burden for cigarettes (see Table 4 and Table 5). So, total cigarette tax (excise + VAT + NBT) revenue in January-April was about $23,840 \times 1.25 = 29,800$ million LKR, which is 1 billion LKR higher than a year before.

Forestalling was another factor of revenue decline in early 2017. In anticipation of tax increases, manufacturers may take advantage of the current or lower tax and increase production or stock of products (known as forestalling) [23]. The President of Sri Lanka announced plans on substantial tax increases for cigarettes on June 1, 2016¹⁹. Ceylon Tobacco Company had 4 months to increase cigarette production and taxable wholesales. In the first nine months of 2016, the cigarette excise revenue increased to 67.5 billion LKR from 59.7 LKR in January-September 2015 or by 13.2% [22]. The revenue increase was higher than the tax rate increase: in October 2015, excise rates for expensive cigarettes increased 8.5-10%, but for 3 categories of cheap cigarettes the rate did not increase (see Table 3). So volumes of taxable cigarette sales increased in the first nine months of 2016, but during the twelve months of 2016, the production of cigarettes decreased by 8%, or by 328 billion cigarettes (see Figure 1). In 2015 and 2016, cigarette production was higher than the sales²⁰, but excise taxes were paid by the CTC from produced or wholesaled cigarettes. The CTC could use overproduced cigarettes to pay taxes before tax increases, but sending cigarettes to retail sale after tax increases and even with new prices to get extra profits. Production of cigarettes in January-April 2017 decreased by 31% [22] while the price of the Gold Leaf cigarette increased from 35 LKR to 50 LKR or by 43%. The calculated nominal price elasticity is $31/43 = 72\%$, which looks too high. Most probably the 31% reduction was registered for taxable cigarettes, while some smokers still smoked cigarettes produced and taxed before October 2016. To prevent such a situation in the future, the country could consider implementing anti-forestalling measures, recommended by the FCTC Article 6 Guidelines.

Also after the sharp price increase (see Table 4), some smokers could switch to cheaper cigarettes. Excise rates for cheaper cigarettes are still much lower (see Table 3) and such switch of cigarette consumption also contributed to the excise revenue decline. To prevent such revenue decline in the future, the introduction of the uniform specific excise tax for all kinds of cigarettes is recommended.

Cigarette affordability greatly declined in late 2016 (see Table 6) and cigarette consumption in the country decreased. However, to estimate the real decline in consumption, more detailed monthly data on cigarette production, sales and revenues are needed.

In April 2017, Sri Lankan President Maithripala Sirisena declared that the government's program to create an alcohol and tobacco-free nation has been successful as the revenues from the tobacco and alcohol had gone down. The President admitted that it was for the first time in history that the Treasury reported to the Cabinet that the revenues made from tobacco and alcohol had dropped drastically. He took this as a good sign since reduced revenues mean reduced consumption²¹. While this statement signifies that the strategic goal of the Sri Lankan authorities is related to the eradication of tobacco use and its health consequences

¹⁹ <http://www.asiantribune.com/node/89027>

²⁰ <http://www.dailymirror.lk/article/Tobacco-Consumption-and-Media-s-role-128576.html>

²¹ http://www.colombopage.com/archive_17A/Apr11_1491925051CH.php

rather than making revenues on tobacco, the described situation is only partly related to the decreased consumption along with the tax-avoidance tactics of the tobacco producers.

Arguments against the excise tax increase

The reported decline in tobacco excise revenue in early 2017 is used as an argument against the further increase of cigarette taxes.

Ceylon Tobacco Company also uses other arguments against the excise tax increases:

- *“Illicit trade’s principal driver is the existence of large, tax-driven, price differences between markets”²².*
- *“Excessive excise tax increases always lead to a volume decline and could end up resulting in lower tax revenues for the Government when consumers migrate to beedi or smuggled products”²³.*

Cigarette smuggling

According to the Ministry of Finance report, 50 million smuggled cigarettes have been confiscated by the Customs in 2006²⁴. In 2012, the authorities detected 56 million illicit cigarette sticks attempted to be smuggled into Sri Lanka²⁵. In 2014, an estimated 30 million illegal cigarette sticks were confiscated and destroyed in Sri Lanka under the supervision of law enforcement authorities²⁶. In 2015, 21.6 million illicit cigarettes were confiscated, a reduction of 29% when compared to the previous year²⁷.

In 2004-2015, the average excise rate per 1 cigarette (calculated as excise revenue/sales volume) increased from 4.8 LKR to 19.4 LKR or almost 4-fold in 11 years (Figure 1). Despite such an increase of excise rates, cigarette smuggling declined in 2006-2015, given that the smuggled cigarette seizures reflect the real trend. Ceylon Tobacco Company had to admit that the illegal market accounts for 1.5% of the market in Sri Lanka. As the tobacco industry used to overestimate the share of smuggled cigarettes, we can take the estimated 1.5% as the upper limit.

While the current level of tobacco smuggling is not high, some effective policies can be used to reduce even such level. However, Sri Lanka has not yet ratified the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products, and following the provisions of this Protocol can be beneficial.

While cigarette smuggling is a problem, it should not be overestimated and used as an argument against further excise increases. The FCTC Article 6 Guidelines state [23]: *The development, implementation and*

²²

[http://www.ceylontobaccocompany.com/group/sites/sri_9pmjn9.nsf/vwPagesWebLive/DO9PMKKS/\\$FILE/medMD9T8FR7.pdf?openelement](http://www.ceylontobaccocompany.com/group/sites/sri_9pmjn9.nsf/vwPagesWebLive/DO9PMKKS/$FILE/medMD9T8FR7.pdf?openelement)

²³

[http://www.ceylontobaccocompany.com/group/sites/sri_9pmjn9.nsf/vwPagesWebLive/DO9PMKN2/\\$FILE/medMDA7UEUE.pdf?openelement](http://www.ceylontobaccocompany.com/group/sites/sri_9pmjn9.nsf/vwPagesWebLive/DO9PMKN2/$FILE/medMDA7UEUE.pdf?openelement)

²⁴ <http://www.treasury.gov.lk/documents/10181/12870/2006/bb0d67c1-c741-4ef3-8ef2-e9afc2663839?version=1.0>

²⁵ <http://www.ips.lk/talkingeconomics/2015/05/31/world-no-tobacco-day-tobacco-smoking-an-issue-of-unawareness/>

²⁶

http://www.ceylontobaccocompany.com/group/sites/SRI_9PMJN9.nsf/vwPagesWebLive/DO9PMKKS?opendocument

²⁷

[http://www.ceylontobaccocompany.com/group/sites/sri_9pmjn9.nsf/vwPagesWebLive/DO9PMKN2/\\$FILE/medMDA7UEUE.pdf?openelement](http://www.ceylontobaccocompany.com/group/sites/sri_9pmjn9.nsf/vwPagesWebLive/DO9PMKN2/$FILE/medMDA7UEUE.pdf?openelement)

enforcement of tobacco tax and price policies as part of public health policies should be protected from commercial and other vested interests of the tobacco industry, including tactics of using the issue of smuggling in hindering implementation of tax and price policies.

Beedi (bidis)

Beedi are popular amongst the low-income rural populations in Sri Lanka. Beedi is manufactured in Sri Lanka only by wrapping crushed tobacco in a special type of paper imported from India and known as bidi-leaf or Tendu. Around 2,000 bidi sticks can be produced with one kilogram of bidi-leaf, so bidi annual production is calculated using tendu import in kilograms as a proxy.

In 1995-1999, about 3 billion bidi sticks were produced annually in Sri Lanka [4]. In 2007, the estimated bidi production decreased to 1.14 billion sticks, but in 2009-2013 it returned to the annual level of 3 billion sticks and was rather stable.

In 2014-2016, several national media published very similar papers, such as *Beedi smoking grows as price stick hurts cigarettes*²⁸. All these papers used data on bidi production trends starting from 2007 and claimed that *“beedi volumes have risen from 1.1 billion sticks in 2007 to 3.2 billion sticks in 2013, a growth of almost 200 percent over the past six years”*²⁹ and explained the apparent growth by the fact that *“price of a regulated stick of cigarette has increased 100% from 2007 to 2014”*³⁰.

However, the graph published in one of such papers³¹ shows the large increase of bidi production was observed only in 2007-2009 (from 1.4 billion to 3.1 billion) when excise rates for cheap cigarettes almost did not increase (see Table 3) and the cigarette price increase was rather moderate.

The National Authority on Tobacco and Alcohol (NATA) published an article³² and explained that beedi smoking has not witnessed a spike, as the above-mentioned stories claimed. The overall trend since 1992 is, in fact, a decrease in imports. During the 24 years observation period, the fluctuating import levels were higher than in 2015 in 15 of those years and lower in only 8 of the years. The authors of the papers selected an arbitrary time period in which there seemed to be an increase in imports to make the misleading argument that beedi sales substantially increased over recent years. Alcohol and Drug Information Center (ADIC Sri Lanka) also admitted that there is no correlation between cigarette prices and beedi consumption [24].

The CTC claimed that beedi *‘now accounts for approximately 43% of the tobacco market in the country’*³³. The major flaw of such claim is treating a beedi stick and a cigarette stick as being equivalent in terms of tobacco content (and therefore consumption). However, cigarette sticks contain much more tobacco than beedi sticks do. The most popular brand of cigarette in Sri Lanka, which constitutes over 80% of the market, includes 600 milligrams of tobacco per stick while the tobacco content of beedi ranges between 195-385 milligrams [24]. So the bidi share in total tobacco consumption is much lower than 43%.

²⁸ http://www.island.lk/index.php?page_cat=article-details&page=article-details&code_title=153424

²⁹ <http://www.sundaytimes.lk/140727/business-times/beedi-cheaper-alternative-for-the-poor-man-108087.html>

³⁰ <http://www.ft.lk/article/425025/Who-s-winning-the-battle-against-tobacco>

³¹ <http://www.ft.lk/article/425025/Who-s-winning-the-battle-against-tobacco>

³² http://island.lk/index.php?page_cat=article-details&page=article-details&code_title=153824

³³

[http://www.ceylontobaccocompany.com/group/sites/sri_9pmjn9.nsf/vwPagesWebLive/DO9PMKN2/\\$FILE/medMDA7UEUE.pdf?openelement](http://www.ceylontobaccocompany.com/group/sites/sri_9pmjn9.nsf/vwPagesWebLive/DO9PMKN2/$FILE/medMDA7UEUE.pdf?openelement)

However, beedi use is also harmful to health. World Health Organization recommends that a policy framework for bidis incorporates the various demand-side and supply-side measures for tobacco control addressed in the Framework Convention on Tobacco Control that are specific to bidis [25].

Sri Lanka has recently implemented policies to discourage beedi consumption in the country. In 2015, the government increased the duty on imported beedi leaves from 250 LKR to 350 LKR per 1 kg³⁴. Then the duty was increased to 2,000 LKR in July 2016³⁵ and to 3,000 LKR on September 30, 2016³⁶. From 2017, an annual license fee of LKR 50,000 was imposed on importers of beedi leaves³⁷.

Discussion

The tobacco tax policies, implemented in Sri Lanka in 2004-2015 did not reduce cigarette affordability and smoking prevalence rates remained rather stable in 2009-2014. Tobacco tax hikes implemented in October-November 2016 substantially reduced tobacco affordability and reduced tobacco consumption.

Earlier changes in tobacco use prevalence, especially the decline in 2007, might have been caused by the introduction of several tobacco control measures (advertising ban, the ban on smoking in public places and ban of cigarette sales to minors) by the NATA Act N° 27 [26]. However, many of NATA goals have proven difficult to enforce, which resulted in only a small reduction in usage [19]. Though some authors [14] mention that tobacco taxes were increased along with other NATA regulations in 2006, this was a small increase which could not seriously impact the affordability of tobacco products.

Recently, Sri Lankan economist Nishan de Mel has made the following proposal: *A moderate and systematic method for increasing the pricing of cigarettes would be to see that prices are adjusted every year to keep step with the increase in per-capita GDP – thereby, mitigating the increase in affordability that comes with average income growth.* However, the graph, presented in his paper, revealed that in 2011-2015 cigarette affordability almost did not change. Our calculations (see Table 7) confirm such affordability trend. As the affordability did not change, smoking prevalence and tobacco consumption also did not decrease.

The recent WHO-NCI monograph on tobacco taxation [31] states: *In the same way that changes in prices (rather than the level of prices) are more useful as a tobacco control tool, changes in cigarette affordability (rather than the level of cigarette affordability) are expected to drive changes in cigarette consumption over time.*

The Guidelines for implementation of Article 6 of the WHO FCTC [23] recommend: “When establishing or increasing their national levels of taxation Parties should take into account – among other things – ... changes in household income, to make tobacco products less affordable over time in order to reduce consumption and prevalence”.

³⁴

https://www.google.com.ua/url?sa=t&rct=j&q=&esrc=s&source=web&cd=8&cad=rja&uact=8&ved=0ahUKEwjg4K3FzaHVAhXEJJoKHc_xC64QFghJMAc&url=http%3A%2F%2Fndbs.lk%2Fpages%2Fresearch_library%2Fdownload_pdf.jsp%3FDOC_PATH%3D%2Fopt%2Fdownloads%2FResearch%2F3%2F2016-07-21_17_25_00.pdf&usg=AFQjCNHpay7s6Cz-BTgz9rFqi7LHfzTzNg

³⁵ http://island.lk/index.php?page_cat=article-details&page=article-details&code_title=153824

³⁶ <http://www.customstoday.com.pk/sri-lanka-to-impose-15-vat-on-cigarettes/>

³⁷ https://www.pwc.com/lk/en/budget2017/customs_excise_and_cess.html

So it is not enough to adjust excise tax every year to keep up with the increase in per-capita GDP. The excise tax increase should be much higher than the expected GDP increase to make cigarettes less affordable and to reduce tobacco consumption in the country.

In July 2016, the country's Minister of Health Dr. Rajitha Senaratne proposed to increase the tobacco tax to 90 percent. The Minister said he was proposing the current 72 percent to be increased to 90 percent and waive off VAT, as VAT has been imposed by the Government as a temporary measure, he pointed out³⁸.

However, the minister did not take into account that the CTC has a monopoly on cigarette market in Sri Lanka and can change its (net-of-tax) part of the price in any direction. Average cigarette excise increased over 2008-2016 almost 3-fold (see Table 3) but tax share in cigarette price remained at the same level (see Table 4 and Table 5).

The recent WHO-NCI monograph on tobacco taxation [31] states: *The best strategy for a monopolist would be to set the retail price lower than the short-run profit-maximizing position when the business environment is good. However, when the environment is unfavorable to the industry (e.g., when tobacco control legislation is passed or when the excise tax increases consistently), a more appropriate strategy would be to set the retail price much higher in order to maximize short-run profits, given the expected lower future profits. Ironically, the industry engineered a greater decrease in cigarette consumption in the short term by raising prices than the government was able to achieve by increasing the excise tax alone.*

Over recent years, the CTC increased net-of-tax part of the price and each such increase reduced the tax share in the final price. But eventually the final price increased more than expected and this higher price contributed to the tobacco consumption reduction.

So it is not recommended to use tax share in the cigarette retail price as an indicator of tobacco taxation policy. The tobacco affordability index is a better indicator, as it is based on key recommendations of the Guidelines for implementation of Article 6 of the WHO FCTC and the WHO-NCI monograph on tobacco taxation.

Conclusions and recommendations

The sharp increase of tobacco taxes implemented in Sri Lanka in late 2016 substantially reduced tobacco affordability and tobacco consumption in the country and also increased total governmental revenues from all tobacco taxes combined.

While tobacco taxes in Sri Lanka are already higher than in neighboring countries, excise taxes can continue to be increased, even if the tax rate is already very high [31].

The following recommendations can help to ensure both tobacco consumption reduction and the increase of government revenues from tobacco taxes:

1. The excise tax rates for all kinds of cigarettes should be increased to the current excise rate of the most expensive cigarettes. This will minimize incentives to shift to cheaper products.
2. Then the unified specific tax rate for cigarettes should be annually increased to ensure the decrease of tobacco affordability. For example, if the expected annual GDP (or income) growth is 5% and expected inflation level is also 5%, the unified specific rate could be increased by $20\% = (5\% + 5\%)*2$.

³⁸ http://www.colombopage.com/archive_16B/Jul14_1468510793CH.php

3. Tax rates for bidis and other tobacco products should be increased at least to the same extent as cigarette excise rates to discourage the use of such products.
4. Some effective anti-forestalling measures should be introduced to ensure that authorities receive the extra revenue from tax increases, rather than producers or importers.
5. Effective policies to counteract tobacco smuggling and other kinds of illicit tobacco sales should be implemented in line with the provisions of the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products, which is recommended to be ratified by the country.

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