

Tobacco use and tobacco taxation in Papua New Guinea¹

Tobacco control legislation

Papua New Guinea (PNG) became a Party to the WHO Framework Convention on Tobacco Control on August 23, 2006.

PNG was an early adopter of tobacco control measures with the introduction of the Tobacco Product (Health Control) Act in 1987, and the development of a National Policy on Tobacco Control in 2004. However, the implementation of these measures has been challenging due to lacking enforcement and regulation [1]. Smoking has been banned in public motor vehicles, cinemas and theaters, buildings and offices of educational, health and governmental institutions since 1991². However, the enforcement was rather poor. In 2016, 71% of 13-15 years old students responded that they had seen someone smoking inside the school building or outside of the building on the school territory during the past 30 days [2]. In 2017, the media reported³ that Papua New Guinea did not apply any policies against tobacco use in public spaces, meaning that people can smoke everywhere, even on Public Moving Vehicles.

On November 3, 2016, the parliament unanimously adopted the Tobacco Control Act 2016 [3], which repealed the Tobacco Product (Health Control) Act of 1987⁴. However, the Act of 2016 is rather declarative, as numerous regulations should be developed and adopted for the implementation and enforcement of its provisions. In February 2018, Health and HIV/AIDS Minister said that the regulations for the Act were developed in 2017 and were expected to be fully implemented in 2018⁵; however, there was no other information in the media regarding these regulations.

Smoke-free areas can be designated by the order of the Minister of Health in any building or part of a building to which members of the public have access (Article 8 of the Act), but it means that smoking cannot be prohibited in any areas outside of buildings, except for public transport. Article 9 of the Act declares that smoking in the workplaces is prohibited, while Article 12 states that in some workplaces, smoking can be permitted under the Act.

Tobacco advertising is banned by the Article 14 of the Act, but Articles 15, 16 and 17 contain numerous exceptions, for example, point-of-sale advertising is permitted. In March 2017, the British American Tobacco (BAT) conducted a premium launch of its two brands in Port Moresby with wide media coverage⁶.

Health warnings (Article 28 of the Act) should be placed on tobacco packages in accordance with regulations and should take up a minimum 50% of the principal display areas and may be in the form of, or include, pictures or pictograms (Article 28 of the Act). Currently, cigarettes are sold with text-only (in English and local language) warnings which take about 30% of the upper side of a cigarette pack; however, it is not clear if any document regulates these warnings. The regulations required by the

¹ Assessment prepared by a World Bank Group Global Tobacco Control Program team under the coordination of Patricio V. Marquez, Lead Public Health Specialist, HNP GP, in collaboration with Nicolas Rosemberg, Health Economist, HNP GP, World Bank Group. September 8, 2018.

² <https://www.tobaccocontrolaws.org/files/live/Papua%20New%20Guinea/Papua%20New%20Guinea%20-%20SF%20Declaration%20-%20national.pdf>

³ <https://postcourier.com.pg/second-hand-cigarettes-dangerous-health/>

⁴ <http://www.looppng.com/content/new-tobacco-bill-passed>

⁵ <https://www.thenational.com.pg/law-address-illegal-sale-tobacco-underage-smoking/>

⁶ <https://postcourier.com.pg/bat-brings-back-legendary-brands/>

Article 28 of the Tobacco Control Act of 2016 have not yet been issued. Cigarettes with Philippine's health warnings were recently sold in the online shop in Papua New Guinea⁷.

According to the media reports, the most prominent provision of the Tobacco Control Act is Article 24 which prohibits the sale of cigarettes in packets with less than 25 sticks and the sale of packages of loose tobacco smaller than 25 grams.

In March 2017, Health Secretary said⁸ that he directed *"his department to act immediately to draft a National Executive Council submission and an instrument for the consideration of the Governor-General who has the power to issue a Notice under the Act nominating a date Section 24 comes into operation"*. This date would be made 12 months from the date of the Gazette Notice and so the affected companies would have enough time to prepare for the reform. However, the regulations have not been issued. Health Secretary has said that *"the purpose of such measure is to discourage young people from buying tobacco products or to make them less attractive to young people. It is the smaller and therefore cheaper packages of tobacco product which tend to be more likely to be bought by young people who often have less available money to spend"*⁹. However, a media report¹⁰ said that young people do not necessarily have to purchase packs from shops, as there are many street vendors who readily sell single cigarettes to people of any age. Cigarettes in small (5 or 10 cigarettes) packs were almost not sold in the country, and for children, there is no big difference between the packs of 20 and 25 cigarettes.

The most concerned stakeholder for the implementation of the 20-cigarettes packs' ban appeared to be the British American Tobacco. Already in March 2017, BAT reported to the media¹¹ that it had complied with the new tobacco law by removing from the market one of its brands with 20 cigarettes in a pack. In April 2018, BAT-PNG external affairs manager George Panao said: *"Unfortunately, the progress has been slow with respect to the enforcement of the Tobacco Control Act 2016 and the minimum pack size of 25"*¹². There is an impression that the provision to ban 20-cigarette packs was inspired by BAT: firstly, to fight its competitors and, secondly, to create the impression that tobacco control is being implemented by promoting the policy which hardly has any impact on tobacco consumption.

Tobacco use among adults

According to published international estimates [4], the age-standardized adult smoking prevalence in Papua New Guinea was rather stable in 1980-2012: 36.7-37.5% among the total population (about 52% among men and 22% among women).

According to the STEPS-2007 survey covering people aged 15-64 years, 44% of respondents were current smokers (60% of men and 27% of women). Almost all smokers were daily smokers, but on average they smoked only 3.3 cigarettes a day [5, 6].

The next survey (Household Income & Expenditure Survey (HIES) conducted in 2009-2010 reported that 26.3% of adults were current tobacco smokers (37.3% of men and 14.5% of women)¹³ [7].

The detailed analysis of the HIES data [8] (conducted by World Bank specialists) revealed that the prevalence of smoking among people aged 18 and over was the highest in terms of both current

⁷ <https://www.fortunaonline.net/supermarket/tobacco-products/cigarettes/marlboro-ice-blast.html>

⁸ <https://newslinkpng.wordpress.com/2017/03/02/parliament-act-to-ban-cigarette-sale/>

⁹ <https://postcourier.com.pg/tobacco-control-act-effective-next-year/>

¹⁰ <https://www.thenational.com.pg/tobacco-heart-disease/>

¹¹ <https://postcourier.com.pg/bat-removes-dunhill-20-product-from-shelves/>

¹² <https://www.thenational.com.pg/untaxed-tobacco-products-hitting-govt-revenue/>

¹³ http://www.who.int/tobacco/surveillance/policy/country_profile/png.pdf

smoking and ever smoking among the poorest quartile, measured as 42% and 49% respectively. The prevalence of current smoking and ever smoking in the wealthiest quartiles was 35% and 39%, respectively. For households in the poorest quartile, tobacco consumption accounted for 6.6% of total household expenditures as compared with 4.9% for the entire sample. People from rural areas were more likely to smoke than people from urban areas.

Smoking of unprocessed tobacco is quite common across all income quartiles in PNG, but individuals in the wealthier quartiles, younger ones and those living in urban areas are more likely to consume manufactured cigarettes than those poorer, older and rural dwellers.

A cross-sectional survey of people aged 15-65 years was conducted in 2013-2014 [9]. The measured prevalence of daily tobacco smoking constituted 48% (69% among men and 29% among women). Among all smokers, 12% reported smoking filter cigarettes, 19% - unfiltered dark tobacco (spear/mutrus), 69% - home-grown tobacco (brus).

The Demographic and Health Survey was conducted in Papua New Guinea in 2016-17 and measured various indicators including tobacco use. However, the results have not been yet published. Earlier conducted DHS [10] did not measure tobacco use.

Tobacco use among youth

In the NCD and Manus survey conducted in 1996-97 [11], the prevalence of smoking among young people aged 8-10 years was 10% and 7% in NCD and Manus respectively; among those aged 11-12 years - 12% and 11%; among those aged 13-14 years - 16% and 13%; among those aged 15-16 years - 18% in both survey parts.

The 2002 Education Welfare Study of students in upper primary (grades 7-8) and secondary (grades 9-12) school revealed that 10% of grade 7, 18% of grade 9 and 26% of grades 11 were smokers [1].

The Global Youth Tobacco Survey (GYTS) was conducted in 2007 [12] and 2016 [2].

Table 1. Prevalence of current tobacco use (at least once during the last 30 days) among adolescents aged 13-15 years in Papua New Guinea, %, GYTS

	2007	2016
Currently used any tobacco product	47,7	33,3
boys	55,4	40,1
girls	40,3	28,3
Currently smoked cigarettes	43,8	20,7
boys	52,1	29,9
girls	35,8	13,6
Current smokeless tobacco users		12,2
boys		10,9
girls		13,6
Lived in homes where others smoked in their presence	73,9	57,5
Had at least one parent who smoked	36,4	

Comparison of results of GYTS conducted in 2007 and 2016 showed that some decline in tobacco use (especially cigarettes) was achieved. However, in 2016, 20% of boys and 19% of girls used electronic cigarettes during the past 30 days. Smokeless tobacco use was more prevalent among girls.

The percentage of teenagers, who lived in homes where others smoked in their presence, also decreased from 73.9% in 2007 to 57.5% in 2016, and this can be considered an indirect indicator of

changes in smoking behavior among adults. In 2007, 36% of children had at least one parent who smoked. It is an indirect estimate of smoking prevalence among adults.

According to the HIES, in 2010 the smoking prevalence among the youth aged 11-17 years was 5.5% (8% among boys and 2.8% among girls) [8].

Tobacco growing

The FAO database [13] does not have information on raw tobacco production in PNG.

All the tobacco leaf used for manufacturing cigarettes in PNG was imported from abroad [1]. The only small-scale local tobacco cultivation by an Australian-based tobacco company was abandoned in the 1980's. However, tobacco is grown widely in PNG by rural dwellers for their own use and is often sold at local markets in the form of dried leaves called "brus".

In 2016, British American Tobacco PNG announced that it would buy locally produced tobacco leaves for its cigarette products¹⁴. BAT General Manager Michael Penrose said it was the first time ever in the company's 50-year history in PNG to purchase locally grown tobacco leaves for its local factory.

Tobacco production and sales

A traditional tobacco product in Papua New Guinea is called "brus". It is an unbranded loose tobacco grown in the country and sold by informal businesses which do not pay excise taxes [3]. This tobacco product is still popular, especially in Western Highlands Province¹⁵. Some people grow "brus" for their own consumption, but the majority grows it for income purposes.

From 1960 to 1979, the total annual consumption of tobacco (all kinds of taxable tobacco products and non-taxed brus) in Papua New Guinea increased from 573 to 1800 metric tons [14]. In the 1960s, cigarette smoking became popular in Papua New Guinea. The year 1969 was the first one when PNG smokers consumed more cigarettes than brus, but by 1979 the sales of cigarettes accounted for 71% of total tobacco consumption [15]. Between 1973 and 1979, the consumption of locally made cigarettes rose from 692,000 kg to over 1 million kg [16]. Non-cigarette taxable tobacco was also widely used in the country: in 1973-1986 reported cigarette consumption was 0.22-0.44 kg per capita and non-cigarette (taxable) tobacco consumption was 0.24-0.53 kg per capita [17].

British American Tobacco is the main cigarette manufacturer in the country. BAT owns a plant in Madang; back in 1999, it closed the tobacco and cigarette factory in Goroka following the worldwide merger of the former Rothmans of Pall Mall and Wills into BAT.

In the 2000s, BAT was the only tobacco manufacturer in the country¹⁶. However, in recent years, two small cigarette manufacturers also operated in PNG: Golden Borough Limited and the manufacturer and distributor of Rave cigarettes¹⁷.

The official data on cigarette production, import, export, and sales in the country are not available.

The media reported that in 2011, British American Tobacco sold on average 100 million cigarettes per month and 1.2 billion cigarettes per year¹⁸.

¹⁴ <https://postcourier.com.pg/bat-to-buy-locally-produce-tobacco-leaves/>

¹⁵ <https://postcourier.com.pg/tobacco-thriving-business-whp/>

¹⁶ <https://www.thenational.com.pg/bat-no-hike-in-prices-of-tobacco-items/>

¹⁷ <https://postcourier.com.pg/fake-cigarettes-a-concern/>

¹⁸ <https://www.thenational.com.pg/probe-bat%E2%80%99s-%E2%80%98corporate-greed%E2%80%99/>

Tobacco taxation

Since the 1999 tax and tariff reform PNG has been using specific excise rates for tobacco products. The excise rates for tobacco products were indexed by 4% every six months from May 1, 2003. However, the 2004 Budget froze the indexation for 12 months until November 31, 2004. From December 1, 2004, the excise indexation for tobacco products resumed at 2.5% [18]. From December 1, 2005, the excise indexation for tobacco products became the lesser of 2.5% and the increase in the Consumer Price Index (CPI) which had to be applied every six months [19]. This means that if the CPI was above 2.5%, then a maximum of 2.5% was applied. However, if the CPI was less than 2.5%, then the excise had to be adjusted to the CPI inflation rate.

Further on, in some years, the rates were indexed bi-annually. However, in some cases, the rates were increased to a higher extent. The excise rates for several periods during 2004-2017 were found in the official documents published on sites of the Treasury¹⁹ or the Parliament²⁰, and they are presented in Table 2.

Table 2. Excise rates for tobacco products in Papua New Guinea, in Papua New Guinea Kina (PGK)

	2004	1 Dec 2008	1 Dec 2011	1 Jan 2012	30 Nov 2012	1 Dec 2014	1 Dec 2015*	1 Dec 2016*	1 Jan 2017	1 June 2017*	1 Dec 2017*	1 June 2018*
Cigars per 1 kg	135,46	150,9	182,02	208,17	232,51	259,13	285,69	314,98	362,23	380,34	399,36	419,33
Regular cigarettes per 1000 sticks	135,46	150,9	181,02	208,17	232,51	259,13	285,69	314,98	362,23	380,34	399,36	419,33
Spear cigarettes without filter per 1000 sticks	67,73	75,45	90,51	104,09	116,26	129,58	142,86	157,51	181,14	190,20	199,71	209,69
Smoking, chewing and other tobacco per 1 kg	45,15	50,3	60,36	69,41	77,53	86,4	95,26	105,02	120,77	126,81	133,15	139,81
Coarse shredded tobacco for RYO cigarettes per 1 kg	X	29,18	29,18	33,56	37,48	41,78	46,06	50,78	58,39	61,31	64,37	67,59

*Excise rates calculated by authors, based on the provisions on excise rate indexation.

As the real value of excise rates on tobacco products had been eroded by inflation (because the annual indexation of rates could not exceed 5%), the one-off increase in excise rates by 15% from 1 January 2012 was adopted to compensate for around 4 years of this erosion²¹. In December 2012, the excise rate was additionally increased by 10%²². From December 1, 2014, the excise indexation was increased to 5% biannually (10% annually)²³. Excise rate on tobacco products was additionally increased by 15% as of 1 January 2017, following the normal fixed 5% bi-annual index increase²⁴.

¹⁹ <http://www.treasury.gov.pg>

²⁰ <http://www.parliament.gov.pg>

²¹ http://www.treasury.gov.pg/html/national_budget/files/2012/budget_documents/Volume1/chapters/vol1.chapter6.pdf

²² <https://www.thenational.com.pg/k2-549-budget-deficit-a-concern/>

²³ http://www.treasury.gov.pg/html/national_budget/files/2015/Vol1-Economic%20and%20Development%20Policies.pdf

²⁴ <https://home.kpmg.com/content/dam/kpmg/xx/pdf/2016/11/tnf-png-november-3-2016.pdf>

For imported tobacco products, import duty is also paid. In 2002, the duties were decreased²⁵ (Table 3). In 2018, the duty rate was substantially increased²⁶, as reported, “to assist domestic manufacturers²⁷”.

Table 3. Import duty rates for tobacco products, in PGK

	2001	2002	1 December 2002	1 January 2015	1 January 2018
Cigars per 1 kg (from 2018 - per 1000 sticks)	60	50	45	45	200
Cigarettes per 1000 sticks	90	80	65	75	200
Smoking tobacco per 1 kg	60	50	45	45	100

Goods and services tax (GST) rate is 10%; it applies to most goods and services in Papua New Guinea, including tobacco products.

Tobacco excise revenue

According to the WHO [20], in 2011, the tobacco excise revenue was 215 million PGK.

The treasury annually publishes budget reports with information on revenue from domestic excise, import excise, and import duty, but for all kinds of excise goods combined, including alcohol and tobacco. In 2009-2017, domestic excise revenue increased from 355 million PGK to 757 million PGK, import excise – from 139 million to 348 million and import duty from 144 million to 246 million. In these eight years, total excise revenue increased more than 2-fold.

In the first half of 2018, Import Duty and Import Excise revenues decreased. The volume of tobacco imports reduced by 44% compared to the first six months of 2017. The treasury report²⁸ suggested that the lower half-year collection is linked to a higher than expected impact of the increase in import duty, which appears to have resulted in the substitution of imported excisable products in favor of local excise products. However, it should be noted that in the first half of 2017 import excise revenue was 142 million PGK²⁹, while in the second half of 2017 it was 206 million PGK (45% more). Actual import excise revenue in 2017 was 348 million PGK, while only 300 million PGK were planned in the budget. Alcohol import duty rates were not changed in 2018, while tobacco import duty was substantially increased (Table 3). Tobacco industry sharply increased the volumes of imported cigarettes in the last months of 2017 to pay the duty at a lower rate and then in the first months of 2018 the import declined as there were enough cigarettes in stocks.

BAT reported to the media that it contributed more than 250 million PGK in excise revenue to the Government in 2014³⁰ and over 400 million PGK in 2017³¹.

²⁵http://www.treasury.gov.pg/html/national_budget/files/2008/budget_documents/Tax%20Amendment%20Bills/Customs%20Tariff%20Amendment%20Bill/CustomsTariff_Ch23-28.pdf

²⁶ <http://customs.gov.pg/wp-content/uploads/2018/08/PNG-Customs-Tariffs-HS-2017.pdf>

²⁷[http://www.treasury.gov.pg/html/national_budget/files/2013/budget_documents/Related%20Budget%20Documents/2018%20Mid-Year%20Economic%20and%20Fiscal%20Outlook%20\(MYEFO\)%20Report.pdf](http://www.treasury.gov.pg/html/national_budget/files/2013/budget_documents/Related%20Budget%20Documents/2018%20Mid-Year%20Economic%20and%20Fiscal%20Outlook%20(MYEFO)%20Report.pdf)

²⁸[http://www.treasury.gov.pg/html/national_budget/files/2013/budget_documents/Related%20Budget%20Documents/2018%20Mid-Year%20Economic%20and%20Fiscal%20Outlook%20\(MYEFO\)%20Report.pdf](http://www.treasury.gov.pg/html/national_budget/files/2013/budget_documents/Related%20Budget%20Documents/2018%20Mid-Year%20Economic%20and%20Fiscal%20Outlook%20(MYEFO)%20Report.pdf)

²⁹http://www.treasury.gov.pg/html/national_budget/files/2013/budget_documents/Related%20Budget%20Documents/2017%20Mid-Year%20Economic%20and%20Fiscal%20Outlook%20Report.pdf

³⁰ <https://www.thenational.com.pg/k26-3m-lost-to-illegal-tobacco/>

³¹ <https://www.thenational.com.pg/untaxed-tobacco-products-hitting-govt-revenue/>

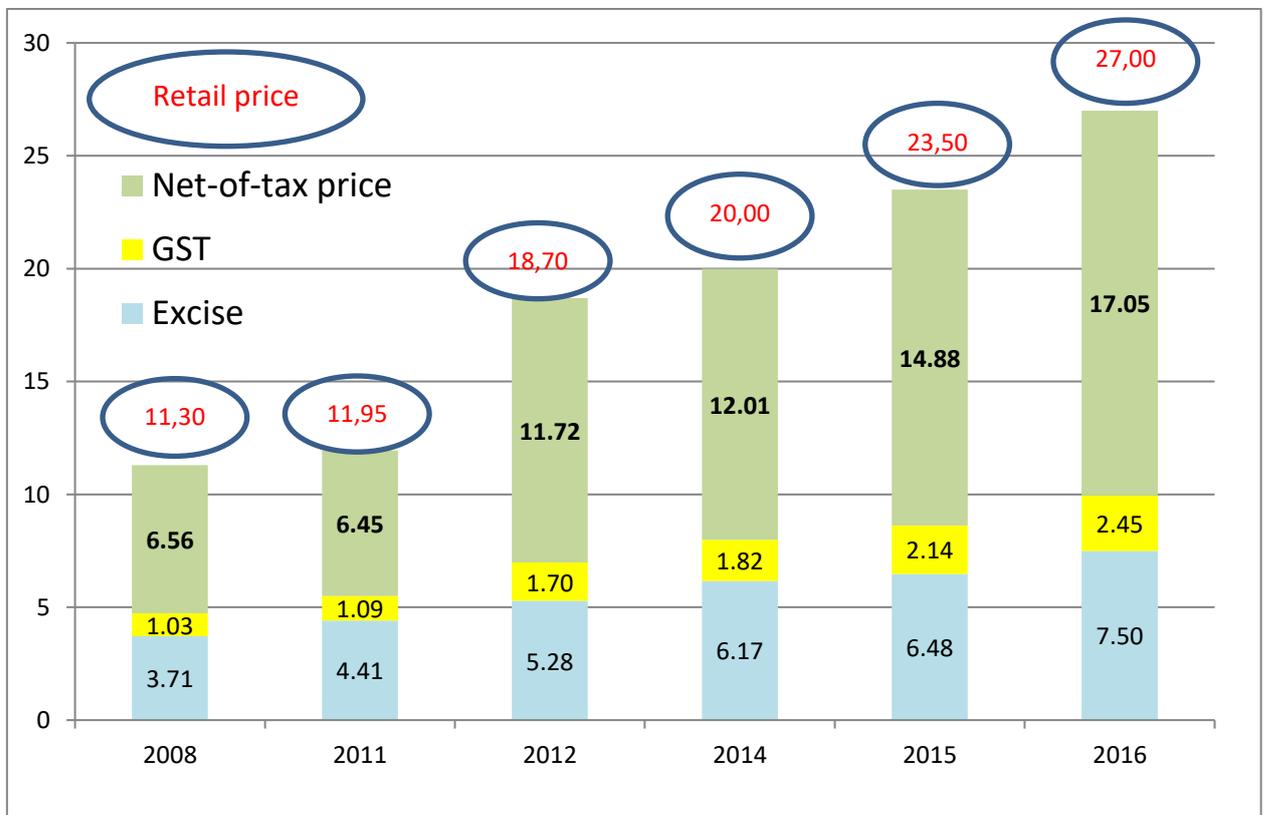
Cigarette prices

At the webpage of the National statistical office (NSO), no regular data on cigarette prices is available. Consumer price indices are usually reported for alcohol, tobacco and betel nut combined³². However, NSO reported that between June 2012 and March 2013, cigarette prices increased by 29.8%³³, while the inflation rate was 4.9%. In June 2014 – June 2015, cigarette prices increased by 44.6%, while the inflation rate was 5.7%³⁴.

The media reported that in August 2012, the price of Pall Mall pack (25 cigarettes) increased from 14 to 18.7 PGK³⁵; however, in late 2011, the price was 11.95 PGK³⁶.

WHO [21] provided data on prices for the most popular cigarette brand (Pall Mall) in 2008, 2012, 2014 and 2016. These prices are presented in Figure 1. For 2015, we took prices from the Treasury report³⁷. Then we took excise rates from Table 2 and calculated the net-of-tax price as Price – Excise – GST.

Figure 1. Retail price and its components of 25 cigarettes pack of the most popular brand, PGK



In 2008-2016, cigarette price increased by 139%. Cigarette excise rate increased by 102%. Net-of-tax price increased by 160% while the inflation rate for these eight years combined was 54%. Tax (excise + GST) share in cigarette price decreased from 46% in 2011 to 37% in 2016.

³² <https://www.nso.gov.pg/index.php/economics/consumer-price-index>

³³ <https://www.nso.gov.pg/index.php/document-library?view=download&fileId=132>

³⁴ <https://www.nso.gov.pg/index.php/document-library?view=download&fileId=130>

³⁵ <https://www.thenational.com.pg/cigarette-prices-rise-in-the-city/>

³⁶ <https://www.thenational.com.pg/bat-no-hike-in-prices-of-tobacco-items/>

³⁷

http://www.treasury.gov.pg/html/media_releases/files/2016/Tax%20Review%20Final%20report%20Vol%202.pdf

The WHO Global Tobacco Report 2017 shows information on cigarette prices and taxes in Papua New Guinea and other countries in 2016 [21] (Table 4).

Table 4. Cigarette prices and taxes in Papua New Guinea and neighboring countries

Country	Price of a 20-cigarette pack of the most sold brand			Taxes as a % of price of the most sold brand						Total tax, USD	<i>Net-of-tax part of the price, USD</i>
	In reported currency	Reported currency	In USD	Specific excise	Ad valorem excise	Total Excise	VAT/ Sales tax	Other taxes and duties	TOTAL TAX, %		
Australia	21,00	AUD	15,8	51,2%	0,00%	51,2%	9,1%	0,0%	60,3%	9,52	6,28
Cook Islands	21,70	NZD	15,4	63,6%	0,00%	63,6%	10,4%	0,0%	74,0%	11,42	4,01
Fiji	12,00	FJD	5,77	30,3%	0,00%	30,3%	8,3%	0,0%	38,5%	2,22	3,55
Kiribati	6,00	AUD	4,51	35,0%	0,00%	35,0%	7,0%	0,0%	42,0%	1,90	2,61
Marshall Islands	2,50	USD	2,50	0,0%	0,00%	0,0%	3,9%	40,0%	54,1%	1,35	1,15
Micronesia (Federated States of)	2,50	USD	2,50	0,0%	0,00%	0,0%	20,0%	40,0%	60,0%	1,50	1,00
Nauru	11,00	AUD	8,27	0,0%	0,00%	0,0%	0,0%	50,5%	50,5%	4,18	4,09
Niue	13,00	NZD	9,24	0,0%	0,00%	0,0%	10,8%	58,1%	84,2%	7,78	1,46
Palau	6,75	USD	6,75	74,1%	0,00%	74,1%	0,0%	0,0%	74,1%	5,00	1,75
Papua New Guinea	21,60	PGK	6,81	27,8%	0,00%	27,8%	9,1%	0,0%	36,9%	2,51	4,30
Samoa	11,50	WST	4,52	38,5%	0,00%	38,5%	13,0%	0,0%	51,6%	2,33	2,19
Solomon Islands	32,00	SBD	4,04	19,8%	0,00%	19,8%	9,1%	0,0%	28,9%	1,17	2,87
Tonga	12,00	TOP	5,43	63,3%	0,00%	63,3%	1,9%	1,9%	67,2%	3,65	1,78
Tuvalu	3,50	AUD	2,63	0,0%	42,81%	42,8%	2,0%	5,8%	50,6%	1,33	1,30
Vanuatu	720,00	VUV	6,60	44,4%	0,00%	44,4%	6,2%	1,8%	52,5%	3,46	3,14
Indonesia	21 667	IDR	1,65	44,3%	4,43%	48,7%	8,7%	0,0%	57,4%	0,95	0,70

We calculated the net-of-tax price of the most popular cigarette brand as follows: Price in USD * (1 – Total tax share). Cigarettes in PNG had the 5th highest prices among 15 listed countries of the Western Pacific Region but, paradoxically, the second lowest tax share percentage (after the Solomon Islands). It was caused by a very high net-of-tax cigarette price in PNG; only Australia has a higher net-of-tax price.

Cigarette smuggling

In October 2015, official “Papua New Guinea Taxation Review” was published [22]. The review admitted: *“anecdotal evidence suggests that there is significant smuggled tobacco sold in the market and streets of PNG”* and stated that Customs Service should improve its efforts to restrict illicit tobacco trade.

Tobacco Control Policy report published by the National Department of Health in 2015 [1] stated: *“large numbers of cigarettes are known to be brought illegally over the Indonesian border”*.

There are no official estimates of tobacco smuggling into PNG.

All available estimates of cigarette smuggling were presented by the BAT.

In 2012, BAT stated that Illicit tobacco was three million sticks a month (36 million cigarettes annually), and with the current excise rate of 0.20 PGK per stick, it translated to a loss of 7.2 million PGK in annual government revenue³⁸.

In 2013, KPMG issued a report for the BAT and estimated that 11% of cigarettes consumed in PNG were illegal³⁹. Later, BAT manager said this translates into over 100 million cigarettes, and the Government lost around PGK26.3 million each year in excise revenue because of the smuggling of illegal cigarettes⁴⁰.

Then, in 2013, the General Manager of British American Tobacco Michael Penrose claimed that the illicit trade had grown over recent years to be approximately 14% of the legal cigarette market⁴¹.

BAT said that illicit tobacco trade in Papua New Guinea in 2014 caused the total revenue loss of 96.1 million PGK⁴². Taking into account that in 2014 the average cigarette excise rate was about 240 PGK per 1000 cigarettes, the estimated volume of smuggled cigarettes was: $96.1 / 0.24 = 400$ million cigarettes.

In November 2016, BAT PNG spokesperson George Panao said⁴³ that 30% of all tobacco currently consumed in PNG was illegal. He said that the tobacco industry was hit with two ad hoc excise increases – 15% in January 2012 and 10% in December 2012, and these increases resulted in illicit tobacco growing from less than 10% in 2012 to almost 30% in 2016. He said: *We've had record levels of illegal tobacco over the last few years due to excise increases driving prices up*. British American Tobacco PNG stated that if the Government introduced a further round of large ad hoc tobacco excise, it would further fuel the tobacco black market.

In September 2017, British American Tobacco (BAT) director Naved Manzoor said that illicit cigarette trading alone was causing the PNG economy 250 million PGK in lost revenue annually⁴⁴.

In August 2018, External Affairs Manager of BAT PNG David Towe in his presentation on “Illegal trade in tobacco products: The tobacco industry’s experience” at the Sub Committee on Customs Procedures Dialogue in Port Moresby announced that about 600 million sticks equating to 150 million PGK had been lost in excise tax revenue because of “illegal trade in tobacco products”⁴⁵.

BAT urges to involve various governmental bodies into mutual agreements “to combat the illegal trade of cigarettes into PNG”. In 2011, Papua New Guinea Customs Services and British American Tobacco signed a memorandum of understanding to work together and to stop buying and selling of illicit tobacco in the country⁴⁶. In September 2017, BAT PNG signed a Memorandum of Agreement with the Royal Papua New Guinea Constabulary after the two organizations agreed to work together⁴⁷. Currently, BAT recommends setting up an “Anti-Illicit Trade Taskforce” to combat the illegal trade of cigarettes into PNG⁴⁸.

³⁸ <https://www.thenational.com.pg/bat-k7-2m-lost-in-illegal-tobacco-trade/>

³⁹ <https://emtv.com.pg/illegal-tobacco-in-png/>

⁴⁰ <https://www.thenational.com.pg/k26-3m-lost-to-illegal-tobacco/>

⁴¹ <http://news.pngfacts.com/2013/08/contraband-cigarettes-costing-png.html>

⁴² <http://www.solomonstarnews.com/index.php/news/business/item/3172-png-govt-looses-k100m-in-illicit-trade>

⁴³ <https://postcourier.com.pg/govt-to-lose-k90m-to-illicit-trade/>

⁴⁴ <https://postcourier.com.pg/deal-help-fight-illicit-trade/>

⁴⁵ <https://postcourier.com.pg/illegal-trade-hits-tax-bat/>

⁴⁶ <https://www.thenational.com.pg/mou-signed-to-curb-illegal-tobacco-trade/>

⁴⁷ <https://postcourier.com.pg/combating-illegal-tobacco-trade/>

⁴⁸ <https://postcourier.com.pg/illegal-trade-hits-tax-bat/>

There are some media reports about seizures of smuggled cigarettes. Back in 2007, PNG Customs officials seized a container holding 400 cartons of cigarettes that had fake Pall Mall and 'Made in PNG' labels on them but originated in China⁴⁹. In 2017, the Royal Papua New Guinea Constabulary seized 137 cartons of smuggled cigarettes "Double Happiness" which then were officially burnt⁵⁰.

However, some media reports on cigarette smuggling are contradictory as it is not always clear which cigarettes are illegal. In November 2017, Customs Chief Commissioner Ray Paul said⁵¹ that there was no restriction on the importation of genuine cigarette products. Responding to claims that foreign-brand cigarettes like Double Happiness, Golden Bridge and Brus were allowed to be imported and openly sold on the streets, Paul said that there was a public misconception that they were illegal or fake products. Paul said that such cigarette brands had not been registered with PNG Customs under its Recordation and Intervention system as possible intellectual property rights infringing goods, so PNG Customs could not stop their entry into the country. This means that anyone can import and sell these products in PNG.

Such brands as Golden Bridge and Brus (made in Malaysia but with health warnings identical to the warnings on cigarettes made in PNG) were actually openly sold at the online shop with the address in Port Moresby⁵² at prices lower than the current excise rates. It means that this online shop found some ways to evade taxes. This online shop also sold rather cheap Marlboro cigarettes made in the Philippines with new and old Philippine health warnings⁵³ or without health warnings⁵⁴.

Discussion

Tobacco control policies in Papua New Guinea are rather weak. Evidence suggests that pervasive tobacco industry interference serves to undermine tobacco control and public policy in several Pacific countries including Papua New Guinea [23].

The exception among other tobacco control policies is the tobacco taxation policy: in 2008-2017, specific excise rates for cigarettes and other tobacco products increased by 165% (see Table 2) while the inflation rate for these 9 years combined was 62%. In 2015 and 2018, the import duty for cigarettes was also increased (by 208% combined – see Table 3). The government increased tobacco excise rates claiming that it was necessary given the high health risks tobacco poses on the people and as a means to raise additional revenue accounting for the behavioral effects related to the reduction in smoking⁵⁵.

Prices for cigarettes also substantially increased, especially in 2012-2016. The price of a 25-cigarette pack of the most popular brand increased from 12 PGK in 2011 to 27 PGK in 2016 (by 15 PGK or by 126%). However, the excise tax increased only from 4.5 to 7.5 PGK, or by 3 PGK (Figure 1). The main factor of the price increase was the pricing policy of the tobacco industry: the net-of-tax part of the cigarette price increased from 6.5 to 17 PGK (by 10.5 PGK or by 164%). The increase in the net-of-tax price and excise rate also raised GST value in monetary terms.

Such a price increase made cigarettes less affordable as the growth in GDP per capita in constant local currency in 2011-2016 was 20%⁵⁶ which was much lower than the growth in cigarette price. World

⁴⁹ <https://www.smh.com.au/world/png-customs-seize-fake-local-goods-20070907-gdr227.html>

⁵⁰ <https://postcourier.com.pg/ncd-burns-double-happiness-worth-k400000/>

⁵¹ <https://www.thenational.com.pg/customs-puts-story-straight-seizure-tobacco-items/>

⁵² <https://www.fortunaonline.net/supermarket/tobacco-products/cigarettes.html?p=2>

⁵³ <https://www.fortunaonline.net/supermarket/tobacco-products/cigarettes/marlboro-red.html>

⁵⁴ <https://www.fortunaonline.net/supermarket/tobacco-products/cigarettes/marlboro-lights.html>

⁵⁵ http://www.treasury.gov.pg/html/national_budget/files/2015/Vol1-Economic%20and%20Development%20Policies.pdf

⁵⁶ <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?locations=PG>

Health Organization report (2017) also confirms that cigarette affordability in PNG reduced in 2008-2016 [21]. Global Youth Tobacco Survey demonstrates that in 2007-2016 cigarette smoking prevalence in PNG substantially decreased, at least among youth (see Table 1).

WHO-NCI monograph on tobacco economics stated that the changes in cigarette affordability (rather than the level of cigarette affordability) are expected to drive changes in cigarette consumption over time. Reduction in cigarette affordability decreased the prevalence of cigarette smoking in PNG, especially among youth: from 44% in 2007 to 21% in 2016 (see Table 1). 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 [24].

The increase of tobacco excise rates also caused the increase in the governmental tobacco excise revenue: from 215 million PGK in 2011 to over 400 million PGK in 2017.

British-American Tobacco tried to persuade that illegal cigarette sales substantially increased over the last few years *due to excise increases driving prices up*⁵⁷. In reality, the BAT pricing policy was the main driver for the cigarette price increase.

According to the BAT estimates, volumes of smuggling into PNG increased from 36 million in 2011 to 600 million in 2017. However, there is no proof for such an enormous growth of cigarette smuggling.

In 2011, BAT sold 1.2 billion cigarettes in PNG⁵⁸. BAT reported that in 2014 it had paid over 250 million PGK of excise revenue. As the average excise rate was about 240 PGK per 1000 cigarettes, it means that about 1.1 billion cigarettes were taxed. Then BAT reported that in 2017 it paid over 400 million PGK excise revenue. As the average excise rate in 2017 was about 360 PGK per 1000 cigarettes, it means that at least 1.1 billion cigarettes were taxed. In 2018, BAT claimed that one-third of the cigarette industry was illegal and that equated to about 600 million sticks of cigarettes illegally imported and sold⁵⁹. Thus, the legal cigarette sales were $600 \times 2 = 1\,200$ million cigarettes.

So, the decrease of legal cigarette sales in 2011-2017 was rather small, if any. If it took place, it could be caused by the reduction of smoking prevalence (see Table 1) and cigarette consumption as cigarettes became less affordable due to excise increases and the BAT pricing policy.

Cigarette smuggling could also increase, but its real volumes are much smaller than those estimated by the BAT. The main aim of the BAT smuggling claims was to prevent further excise tax increases. In November 2016, when the next excise increase was discussed in the parliament, BAT PNG spokesperson George Panao said: *"We strongly believe that this excise increase will be counterproductive and will hurt both the industry and the Government"*⁶⁰. Fortunately, the parliament ignored BAT statements, and the excise rate was increased by 15% (see Table 2) from January 2017.

The governmental Tobacco Taxation Review [22] recommended that excise indexation for tobacco products every six months should be further increased as follows: the higher of 5% or the CPI. In its submission to the Taxation Review, the Department of Health recommended that tobacco excise indexation is set at 30% per annum [25].

⁵⁷ <https://postcourier.com.pg/govt-to-lose-k90m-to-illicit-trade/>

⁵⁸ <https://www.thenational.com.pg/probe-bat%E2%80%99s-%E2%80%98corporate-greed%E2%80%99/>

⁵⁹ <https://www.thenational.com.pg/meet-discusses-illegal-trade-of-cigarettes/>

⁶⁰ <https://postcourier.com.pg/govt-to-lose-k90m-to-illicit-trade/>

Conclusions

Tobacco taxation policy conducted in Papua New Guinea in 2012-2017 was rather successful as it decreased cigarette affordability and smoking prevalence and increased government revenue.

The pricing policy of the tobacco industry reinforced the impact of excise increases and further reduced cigarette affordability. However, the tax share in cigarette prices is only 37%, and it means that the tobacco industry profits exceed governmental tobacco tax revenues.

There is no real proof of a substantial increase in cigarette smuggling into PNG in recent years; however, the effective policies against cigarette smuggling should be adopted and implemented. One of such policies is the introduction of large pictorial health warnings, which can both make illicit cigarettes more visible and help to reduce cigarette attractiveness and consumption among youth.

Comprehensive tobacco control policies have great potential to further reduce smoking prevalence in the country and should be developed, adopted and enforced.

Recommendations

- Specific excise rates for cigarettes should be further increased by at least 20% annually to ensure the reduction in cigarette affordability and the increase in the excise revenues.
- Tax rates for other tobacco products (including smokeless tobacco) should be substantially increased to further discourage their consumption.
- Large pictorial health warnings on all kinds of tobacco packages should be introduced. The transition period for which both old and new health warnings can circulate should be reasonably short (up to 6 months). After the transition period, the sales of tobacco products without new health warnings should be severely punished.
- Comprehensive smoke-free and other tobacco control policies in line with the FCTC should be developed, adopted and enforced.
- Specific messages to discourage the use of local tobacco (brus) should be developed and distributed.
- Tobacco use surveillance and monitoring should be developed in Papua New Guinea, including a regular collection of information on smoking prevalence, tobacco consumption, licit and illicit cigarette sales, tobacco products prices and other economic indicators.
- Effective policies to counteract tobacco smuggling and other kinds of illicit tobacco turnover should be implemented in line with the provisions of the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products, which should be ratified by the country.

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