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POLICY BRIEF

SMOKELESS TOBACCO VS SMOKED TOBACCO: POSSIBILITIES OF SUBSTITUTION

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Background:

Smokeless tobacco consumption has remained fairly high in Nepal over the last decade. The prevalence of tobacco usage has been quite high over the last decade. The prevalence of both smokeless tobacco and smoked tobacco has had similar trends over the last decade. More specifically, the prevalence of smokeless tobacco has remained high at 17.8% in 2012/13[1] and 18.3% in 2018/19[2]. This is similar to the level of smoked tobacco during the same period, that is 18.5% in 2012/13 and 17.1% in 2018/19.

There is fear among policy makers that there would be a shift in consumption of tobacco products from smoked to smokeless tobacco if there is an increase in the price of the former compared to the latter. While such an apprehension is more based on personal observation than scientific evidence, it is something which is worth examining. Let us examine this argument.

Firstly, any policy recommendation for an increment in tobacco taxes is not just an increase in the prices of smoked tobacco, but also smokeless tobacco as well. Secondly, even if we consider that there is only an increment in taxes for smoked tobacco or an increment has resulted in significant price differences between the two category of tobacco products, there is very limited substitution from smoked to smokeless tobacco. Lastly, even if we consider there would be substitution, the health effects of smokeless tobacco are quite significantly lesser than that of smoked tobacco. We will explore these arguments in more detail in this policy brief.

NDRI's recommendation for a higher tobacco taxes, a re-examination

In Nepal Development Research Institute's (NDRI) recommendation for increments in tobacco taxes in the report "**Tobacco Taxation in Nepal: What can be done?**"[3] which was published on May 2020, we had recommended only an increment of taxes of cigarettes. This was done primarily for practical reasons as revenue estimation is easier in case of cigarettes, where there is a standard unit of consumption (i.e. a cigarette stick) as opposed to smokeless tobacco, there is no universally accepted unit of consumption. However, letting go of the complication of estimating revenues of smokeless tobacco, an increment taxes can be recommended to get around the problem of increment in taxes of only a select few number of tobacco products.

Table 1: Excise Duty on Tobacco Products (NPR)

Cigarettes	Unit	2018	2019	2020
Without filter (any length)	Per M	450	495	495
Up to 70mm (with filter)	Per M	1030	1135	1135
In more than 70 mm up to 75mm length (with filter)	Per M	1340	1475	1475
In more than 75mm up to 85mm length (with filter)	Per M	1747	1920	1920
All kinds of Cigars	Per stick	15	17	17
Bidi	Per M	90	90	90
Pipe Tobacco	Per KG	1210	1335	1335
All kinds of Jarda Khaini and Nash	Per KG	554	610	650
Packed Raw Chewable tobacco containing lime	Per KG	305	335	335

Source: Ministry of Finance, Arthik Bidheyak (Various Years)

In the above table, we have illustrated the excise duty for tobacco products. As we can see, for cigarettes, the cigarette taxes vary according to length of the cigarette whereas for the rest of the products it depends on the tobacco type (i.e. cigars, bidi, jarda, khaini, raw/chewable tobacco). In our tobacco tax report, the recommendation was primarily

[1]https://www.who.int/ncds/surveillance/steps/2012-13_Nepal_STEPS_Report.pdf?ua=1
[2]https://www.who.int/ncds/surveillance/steps/NPL_2019_Tobacco-Fact-Sheet-1.pdf?ua=1
[3]http://www.ndri.org.np/wp-content/uploads/2020/06/Taxing-Tobacco-in-Nepal_2020.pdf

on cigarettes because of the reasons which has been mentioned above. However, since there is a need to affect the affordability of tobacco, the excise duty of these products can also be increased at varying rates.

While we have outlined the rationale and the process of transformation from non-uniform to a uniform tax for cigarettes in our tobacco tax report, we also recommend an increment in the other tobacco products. This can be observed in the following table, where we have recommended a 65% increment in the rest of the tobacco products. Of course, the magnitude of this change can vary based on various circumstances.

Table 2: Recommended taxes for non-cigarettte tobacco products (NPR)

Excise Duty on Tobacco Products	Unit	2020	New Change
All kinds of Cigars	Per stick	17	27
Bidi	Per M	90	144
Pipe Tobacco	per KG	1335	2136
All kinds of Jarda Khaini and Nash	per KG	650	1073
Packed Raw Chewable tobacco containing lime	per KG	335	536

Even with these changes there are a number of issues that can needs to be considered. While in this policy brief we will not deal the possibilities of other substitutes such as illicit trade and home-grown tobacco there are still possibilities of substitution to from smoked to smokeless tobacco because of the significant price differences between cigarettes and smokeless tobacco. It is generally the case that the price for the latter is quite lower compared to that of the former, which could lead to substitution, the likelihood of that substitution needs to be considered.

Switching from smoked to smokeless tobacco: How likely is it?

There are a number of studies which have been done to examine the possibilities of substitution from smoked to smokeless tobacco. Tam et. Al. (2015)[4] has done a study in the case of the US, and found that the substitution from smoked to smokeless is quite low, i.e. 0% to 1.4% for adults and 0.8% to 3.8% for adolescence. In a study by Timberlake (2009)[5], shows that a majority of the smokers don't see smokeless tobacco as an alternative to smoking. These studies show that substitution from smoked to smokeless tobacco while possible, is very unlikely.

Substitution from smoked to smokeless tobacco is still possible, since price of smokeless tobacco are generally quite significantly lower than that of smoked tobacco. It is important to classify what exactly one means by substitution, since substitution can be done for two reasons, **1**) **As a response to an increment in the price of the smoked tobacco product and 2**) **They would substitute because of the general differences in prices of the products.** This could occur irrespective of a change in price.

In NDRI's survey, around 22.15% of the smokeless tobacco users have stated that they have switched from smoked to smokeless tobacco. While around 5.82% have cited health reasons as the reason for such a switch, around 7.13% have cited cheaper prices as the reason for such a switch. Note that this occurs irrespective of a price change because of the differences in prices between smoked and smokeless tobacco.

However, when asked how their consumption would change if the price of tobacco was to double, merely 0.4% of the tobacco users said that they would switch to other tobacco products. This indicates that a switch of tobacco usage is not

[4] https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-015-1594-8
[5]https://www.sciencedirect.com/science/article/abs/pii/S0091743509003466
[6]https://mohp.gov.np/attachments/article/449/5.%20NBoD%20Report%202019.pdf

because of a price change. If we are to come up with a policy recommendation based on the above two facts, its important that a policy reducing the gap of the two products is something which should be done (irrespective of the change in tax rate). This is something we recommend at the end of the policy brief.

Even if tax changes are proportional, there could be a chance that the difference in the prices between smoked and smokeless tobacco could increase because of which there could be substitution. However, most evidences suggest that this substitution is quite negligible.

What if there is substitution ?

There is a negligible possibility of switching from smoked to smokeless tobacco. However, the actual detrimental health effects have are quite lower in case of smokeless tobacco compared to smoked tobacco. For instance in the Nepal disease of burden report[6], the deaths attributable to smokeless tobacco is less than 0.5%. Similarly, the Disability Adjusted Life Years (DALY), is also around 0.5%. Both these are very low, compared to other factors, including smoking which has a death attributable rate of 13% and DALY of over 6% (which is among the highest across different factors). Considering the higher detrimental impact of smoking on health and quality of life, compared to smokeless (keeping other factors constant), reduction in consumption of smoking is pivotal.

Conclusion:

We make the following conclusions based on this policy brief.

1. Substitution from smoked to smokeless tobacco is very unlikely because of a change in price.
2. The health risks involved with smoked tobacco is quite significantly higher than for smokeless tobacco.

Therefore, apprehensions regarding switching from smoked to smokeless tobacco because of an increment in tobacco taxes is not justified.

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