

Introduction

Illicit tobacco trade is a worldwide problem. It occurs through large-scale smuggling, bootlegging, counterfeiting and illegal manufacturing¹. Cigarettes are the most smuggled tobacco products. In 2009, it was estimated that 11.6% of the global cigarette market was illicit, equivalent to 657 billion cigarettes a year and US\$ 40.5 billion in lost revenues. The burden of illicit trade falls mainly on lower income countries. The total illicit cigarette market is 9.8% in high income countries compared with 16.8% in low income countries, contrary to claims by the tobacco industry that the overall level of smuggling is dependent on cigarette price².

Illicit trade has a huge impact not only on the health, but also on the economics of society. Illicit trade increases the accessibility and affordability of tobacco products, thus fuelling the tobacco epidemic and undermining tobacco control policies. It also supports corrupt practices and funds organized crime and terrorism. Eliminating or reducing the trade in illicit tobacco products will reduce consumption, save lives and increase tax revenues for governments.

The critical importance of tackling the illicit tobacco trade on a global scale is recognized in the WHO Framework Convention on Tobacco Control (WHO FCTC) whose governing body has released an Illicit Tobacco Trade Protocol. The Protocol, which addresses means of countering illicit trade in tobacco products, a key aspect of a comprehensive tobacco control policy, aims to create more detailed binding obligations for the governments of all the parties aimed at curbing the illicit trade in tobacco products. In particular, it sets

out international guidance for national action on supply chain security, offences and enforcement as well as international cooperation to eliminate the growing illicit tobacco trade in all its forms.

Study Rationale

Reliable quantitative measures of the magnitude and underlying factors of illicit tobacco trade in Egypt are unavailable. However, there is an overall consensus that the national illicit trade in tobacco products is unacceptably large.

The current study was planned and implemented in response to the felt growing trend in national tobacco illicit trade, which poses a serious threat to public health.

Such information would be the tool to counter and eventually eliminate illicit tobacco trade and to call for strengthening the legal dimensions for national health cooperation. Egypt, as a signatory of the WHO FCTC is committed to implementing comprehensive policies for tobacco control including those against supply chain.

This pioneering study provides direct estimates of the magnitude of illicit cigarette trade in Egypt. The information derived from this study is greatly needed to guide policy-makers and stakeholders on strategies for tobacco control measures for the full implementation of the FCTC. Results derived from this study will enhance the efforts aimed at curbing the illicit trade in tobacco products.

Objectives

- 1. Estimate the magnitude of the illicit tobacco trade in Egypt.
- 2. Identify the different types, brands, and prices of illicit tobacco products in Egypt.

¹ Framework Convention Alliance (2008): How big was the illicit tobacco trade problem in 2006? Fact sheets for INB1. Geneva, Framework Convention Alliance, February 2008.

² Joossens L, Merriman D, Ross H, Raw M: How eliminating the global illicit trade would increase tax revenues and save lives. Paris: International Union against Tuberculosis and Lung diseases, 2009.



- 3. Define factors underlying illicit tobacco trade in Egypt.
- 4. Estimate revenue losses associated with illicit tobacco trade in Egypt.

Methodology

There is no universally recognized methodology to assess the size of the illicit tobacco trade and different approaches might be required to establish an accurate picture. The study was initially designed to assess illicit tobacco trade in Egypt. However, the available official data concern cigarettes only. The study was implemented using different scientific methodologies.

- Assessment of the magnitude of illicit cigarette trade in Egypt
 - **1. Method 1:** Mathematical estimation of the percentage of illicit cigarette trade in the Egyptian market and estimation of sales tax revenue losses
 - 2. Method 2: Smokers survey
 - **3. Method 3:** Empty cigarette pack survey
- In-depth interviews with stakeholders to gather related information

Method 1.

It is based on national estimation of the percentage of illicit cigarette trade in the Egyptian market by comparing the national legal cigarette sales against total consumption. The difference between total consumption and tax paid sales was used to estimate the amount of smuggled tobacco/cigarettes for a certain year. The following equations were used.³

Illicit trade = Total consumption – Legal sales

Consumption = No. of smokers (in a given year) × No. of cigarettes /year

An uplift factor (20%) covering under-reporting is added.

No. of smokers (in a given year) =

Prevalence of tobacco smoking \times Total no. of population ≥ 15 years (CAPMAS)

The illicit market share was calculated using the following formula:

Illicit market share = $\frac{Illicit market trade}{Total consumption} \times 100$

Revenue losses associated with illicit tobacco trade in Egypt were estimated using the estimated illicit market share and data on tobacco sales taxes.⁴

Method 2. Smokers' survey

Field data collection was conducted by face-to-face interviews of 3275 smokers [Photo 1] in five governorates⁵ representing different regions of the country. An initial sample size of 3250 participants was targeted to be equally distributed between the five governorates (650 participants/ governorate), equally divided between urban and rural/suburban areas (325 in each). As an additional 25 participants from Port Said wished to join the study, the final number of questionnaires collected was 3275.

 $^{^3}$ CAPMAS provided the data on total number of population \geq 15 years

[‡] GATS 2009/10: Global Adult Tobacco Survey.

STEPwise 2011/12: STEPwise survey for NCD risk factors assessment

⁴ Legal annual domestic cigarette sales taxes were used as reported from the Ministry of Finance in given years.

⁵ **Selected governorates** included: Cairo, Alexandria, Menofia, Fayoum, and Port-Saied.





Photo 1 (A and B). Interviews with current smokers during the smoker survey

Method 3. Empty cigarette pack survey

This was based on collecting empty cigarette packs from streets of different governorates. A quota sample of **5000 empty packs** was targeted (1000 packs per governorate). However, the final number of empty packs collected was **4160**.



Photo 2. Government focal points collecting empty cigarette packs

In-depth interviews

In-depth interviews of stakeholders (representing the Ministry of Health and Population, Tobacco Control Department/MOHP, Ministry of Finance, Ministry of Internal Trade and Supply, Customs Authority and the International Union for Tuberculosis and Lung Diseases) on the magnitude of illicit tobacco trade and main factors underlying its presence and growth was

conducted. Representatives of the Ministry of Interior Affairs were invited but were not able to attend.

Results

Magnitude of illicit tobacco trade in Egypt

I. Mathematical estimation of illicit market share and tax revenue losses

The illicit cigarette market share showed an increasing trend over the period from 2009 to 2012. The illicit cigarette market share reached the peak in 2012; it was estimated to be 20.7% [Figure 1]. In 2009, the illicit market share was estimated to be only 2% (equivalent to 1.56 billion illicit cigarettes). Over a period of 3 years, the illicit cigarette market share increased dramatically from 11.3% in 2010 (10.05 billion illicit cigarettes), to 18.6% in 2011(17.6 billion illicit cigarettes) and 20.7% in 2012 which is equivalent to 20.08 billion illicit cigarettes in the Egyptian market. Estimates in 2013 showed a slight decrease in illicit cigarette market share to be 19.3%, equivalent to 19.1 billion illicit cigarettes [Figure 2]. This marked continuous increase coincides with a period of political instability in the country, with concurrent problems in domestic security and control over the local market.

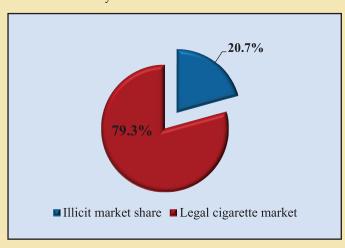


Figure 1: Percentage of illicit cigarette market share in 2012



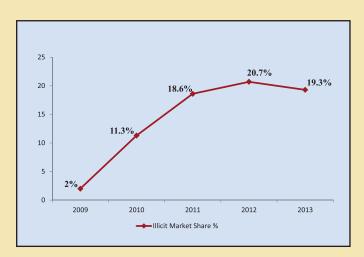


Figure 2. Illicit cigarette market share trend in Egypt during the period 2009 – 2013

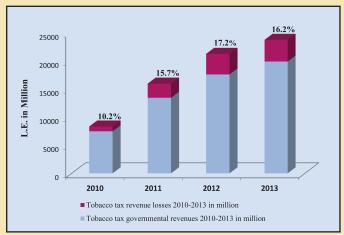


Figure 3: Governmental cigarette tax revenue gains and losses during the period from 2010 – 2013

Using illicit cigarette market share estimates, it was possible to estimate the sales tax revenue losses. In 2010 there was a loss of 847.3 million Egyptian pounds (LE) representing 10.2% loss in revenues, which increased to LE 2.5 billion (15.7% revenue losses) in 2011 and LE 3.6 billion in 2012 (17.2% revenue losses) to reach 3.8 billion in 2013 representing 16.2% losses in revenues [Figure 3].

II. Smokers Survey

The smoker survey was conducted with 3275 participants from the five randomly chosen governorates. Only 2659

participants agreed to show their cigarette packs for inspection, a response rate of 81.2% (Photo 3). Of the cigarette packs inspected, 568 packs were identified as illicit, representing 21.3% [Figure 4]. It may be reasonably assumed that those who did not agree to show their packs (18.8%) were carrying illicit packs, making the proportion of those smoking illicit packs very high (40.1%). However, this cannot be confirmed.

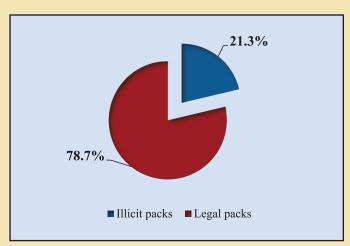


Figure 4: Percentage of illicit packs identified during the smoker survey



Photo 3. Field interviewers inspecting smokers' cigarette packs

Profile of illicit smokers

Information on the characteristics of illicit cigarette smokers was analysed in order to create a profile of illicit smokers. Among all identified illicit cigarette smokers in the smokers survey (n=568), the majority (78.7%) reported that they started smoking below the age of 24 years, i.e. as students. The mean age to start smoking among illicit cigarette smokers was younger than their counterparts using legal brands (19.68 \pm 6.62 years versus 21.12 \pm 6.63 years, respectively) and this finding was highly significant (P < 0.001).

Nearly 60% of illicit cigarette users did not have a university degree [Figure 5]. More than half of illicit smokers (57.8%) were found to be married [Figure 6]. Most illicit cigarette users were daily smokers (97.7%), consuming on average one pack of cigarettes (19.56 \pm 10.54 cigarettes) per day. The majority of illicit smokers (73.5%) reported a monthly income less than LE 1500. Among these, most (72.3%) were unemployed, skilled workers and governmental employees and this finding was highly significant (P < 0.001) [Figure 7 A & B].

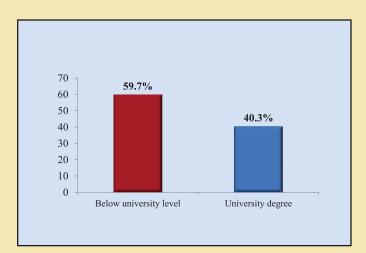


Figure 5: Distribution of illicit cigarette smokers by educational status

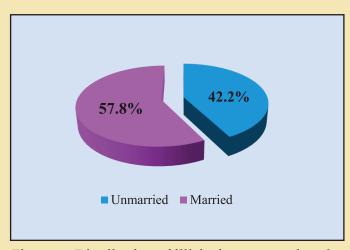


Figure 6: Distribution of illicit cigarette smokers by marital status

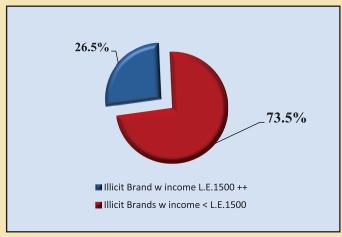


Figure 7.A: Percentage distribution of illicit cigarette smokers' by monthly income level

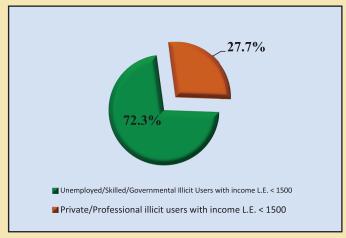


Figure 7.B: Percentage distribution of illicit cigarette smokers' with monthly income less than LE 1500 by occupation.



The average price of illicit cigarette pack was found to be LE 5.2 ± 1.2 with a range from LE 1.5 to 6.8. The commonest smuggled brand used was Marlboro (13.4%) followed by LM (10%) and Roseman (5.6%). Other smuggled brands were available on the Egyptian market in small variable percentages. Cleopatra was the commonest counterfeited brand in the Egyptian market.

III. Empty Packs' Survey

Empty packs were collected from the same previously chosen governorates in method 2 and illicit cigarette packs were identified. Out of a total 4160 empty packs that were collected, 848 were identified as illicit packs (20.4%). Illicit packs were mainly found in Menofia governorate (25%) followed by Alexandria (22.2%) [Figure 8].

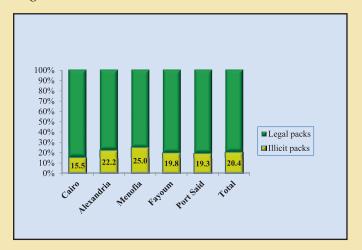


Figure 8: Percentage distribution of empty illicit cigarette packs, by governorate

Stakeholders' in-depth interviews

• Forms of illicit cigarette trade

According to expert opinions in the in-depth interviews, large-scale smuggling is the main source of illicit cigarette trade, followed by counterfeiting and illegal manufacturing. Among the major challenges

determined were smuggling and counterfeiting of local cigarette brands, especially Cleopatra, the most popular local brand. According to the Ministry of Finance and Supply, it is estimated that revenue loss due to illicit tobacco trade in Egypt may reach 20%–25% of the country's tax revenues.

Conclusions and recommendations for a comprehensive strategy to fight the illicit tobacco trade in Egypt

- 1. Without a robust means of measuring the extent and nature of the problem, it is difficult for authorities to set and assess the effectiveness of strategies to combat it. The different methodologies used in the current study have proved to be successful and may serve as a blueprint to be utilized by other countries generating studies to quantify and/or qualitatively assess illicit tobacco trade. They showed similar estimates for the magnitude of illicit tobacco trade in Egypt: 20.7%, 21.3%, and 20.4% for the mathematical calculation, smokers' survey and empty pack survey, respectively.
- 2. Illicit tobacco trade is a major security challenge in many countries. The problem has escalated in Egypt since the onset of political unrest. Prior to 2009, the level of illicit tobacco trade did not exceed 3%. Egypt's transitional government phase is characterized by political instability, fluidity in the security situation and reduced control over the local market and country borders and ports. Therefore, effective legislation needs to be in place and enforced with relevant authority to take action. Important legislative requirements include the identification of offences and appropriate penalties, the systematic destruction of all seized illicit tobacco products, raw materials, means to recover tax revenue losses and costs for destruc-

- tion of seized goods, supply chain control such as manufacturing licenses, and strong protection measures for brand owners.
- 3. Large-scale smuggling is the main source of illicit tobacco trade, followed by counterfeiting and illegal manufacturing. To optimize tax revenues over the long term, the government should complement and support its excise tax system with the use of *monetary markers such as paper tax stamps or digital coding* fixed to each package, with regular monitoring using different digital tax verification methods to prevent its counterfeiting. With this simple technology, governments would have secure information about the volume and path of cigarettes produced, offering full transparency on the amount of excise duties to be collected by each manufacturer and importer.
- 4. The expected revenue due to cigarette tax increase could have a positive impact on tobacco control efforts, including additional reduction in tobacco use and improvements in public health, in the absence of illicit tobacco trade. According to the current study results, the revenue loss due to illicit tobacco trade in Egypt could reach, at the lowest estimate, 20% of the country's tax revenue. This lost revenue would add considerably to the Egyptian government budget and could be directed to support needs in a variety of areas, especially the national health care system.
- 5. The study showed that *poverty and low education* are important determinants for the use of illicit tobacco products. The findings emphasize the role of socioeconomic factors in driving consumers towards less expensive illicit products. In order to reduce the demand for such products, tobacco control programmes should target their efforts towards the vulnerable groups and focus on mass media campaigns as an important tool for public health education.

6. Illicit tobacco trade is a multi-faceted problem. It should be confronted by a comprehensive government approach based mainly on multisectoral collaboration supported by high-level political commitment. The success achieved in identifying the illicit tobacco trade problem in the current study confirmed the urgent need to identify the key concerned partners involved, including the Ministry of Health and Population, Ministry of Interior, Ministry of Finance, Ministry of Supply and Internal Trade, Customs Authority and Ministry of Justice, and link them all in a comprehensive strategy to ensure alignment and commitment to achieving the same goal.