



Ministry of Health Republic of Indonesia



The Tobacco Source Book
Data to support a National Tobacco Control Strategy
English translation

March 2004

The Cover

One day, a *santri* (student) was found to have been smoking in the toilet where he threw his cigarette butt to the floor, causing a small explosion and minor burns to his bottom. “What a commotion it caused, to be sure,” says Lily Qurrotul Ishaqiyah, the wife of Abdullah Munif, deputy head of the *pesantren* (boarding school). Lily can relate the incident in detail not only because it took place less than one year ago but also because it has now become a legend. A smoking ban has been in place for more than six years at the Langitan Islamic Boarding School in the village of Wedangan.

The young man—who shall not be named here—has since stopped smoking, says Abdullah Munif. “He was not badly hurt, but he was really embarrassed.”

The *santri* (student) was reduced to smoking in the toilet because there was no other place inside the school compound for him to do so. Smoking has been prohibited by the *pesantren*’s charismatic leader, Abdullah Faqih. Today, even the food stalls and small cafes outside of the boarding school have notices that say “we do not sell cigarette” plastered across their walls.

Established in 1852, the *pesantren* is the oldest in Indonesia and stands on the bank of Bengawan Solo. Every year the school produces thousands of graduates--many of whom go on to higher education both here and overseas, or to work as *da'i* (preachers) in various parts of the country. Some work as teachers in Quranic Kindergartens (Taman Pendidikan Quran) that Lily set up some 10 years ago in the village and which has grown to more than 300 today.

"We have hopes that of the thousands of students that leave here and work elsewhere will also tell their students not to smoke," Munif says.

Cover picture and story by Santi Soekanto



MINISTER OF HEALTH
OF THE REPUBLIC OF INDONESIA

FOREWORD

The health dangers of tobacco use are very serious, more serious than the community is aware of. Smoking habits are related to the incidence of various diseases, many of which lead to death.

In 2020, the WHO projects that tobacco-related illnesses will become the largest single health problem, causing an estimated 8.4 million deaths globally per year. It is estimated that half of these deaths will occur in Asia given rapidly increasing tobacco use. Deaths in Asia will increase nearly four-fold from 1.1 million in 1990 to 4.2 million in 2020.

Different types of cancers, heart and coronary diseases, respiratory tract infections, and other various diseases, are diseases related to smoking habits or exposure to environmental tobacco smoke (ETS). Other than causing ill health, smoking or exposure to ETS will also lead to economic loss, at the household as well as community levels. This economic loss is in fact very large, moreover if it also includes the loss suffered by the community due to the incidence of deaths among people of productive work age. In Indonesia, this economic loss is more than the government revenue from tobacco farming and cigarette industries.

The abovementioned issues are challenges we should all face, and these challenges should be overcome with comprehensive measures by considering all aspects, and involving all parties. We are aware that tobacco control is a long term and gradual effort but we have to be sure that step-by-step progress is made.

In this context, the publishing of this book is very relevant, and also at the right time. Accurate facts presented in this book will become the basis to develop efforts to directly and systematically overcome barriers in reducing smoking prevalence at all community levels. Tobacco control is our mutual responsibility, professionally and morally, to protect present and future generations.

Jakarta, April 2004.

Dr Achmad Sujudi
Minister of Health Republic of Indonesia

Preface

More than 70,000 scientific articles have demonstrated without a doubt that tobacco use results in serious health consequences. There is, however, a debate about the potential impact of tobacco control policies on other outcomes, due to the complexity of this problem and involvement of other sectors, including agriculture, industry, and finance. This book aims to inform this debate by setting out the most accurate and objective facts available to inform policy-makers. This book is divided into two major parts. The first part from Chapter 1 to 4 presents data available to form the empirical basis of strategic planning. The second major part, Chapter 5 to 10, aims to review in detail about specific tobacco control strategies.

Chapter 1 starts with a description of tobacco consumption and prevalence in Indonesia. Although many small surveys have been collected, we chose to use the SUSENAS national household survey to provide the most accurate picture nationwide, in rural and urban areas, by sex, and over time.

The second chapter reviews the international literature spanning several decades about the devastating health impacts of active tobacco use and exposure to environmental tobacco smoke, particularly among children. We then describe the burden of tobacco use in Indonesia in terms of death in the community.

Chapter three focuses on tobacco and clove farming. Tobacco farming production is reviewed in some detail by province and land devoted to its cultivation. We then examine tobacco farming employment, and trade in tobacco leaves. We also briefly review clove farming. Chapter four examines the tobacco manufacturing industry. We also review employment in tobacco manufacturing over time and the trade in manufactured tobacco products.

Chapter five describes price and tax measures, with an explanation of cigarette prices, excise tax structure, and household tobacco preferences and expenditures. Chapter six explains the importance of generating public awareness, comprehensive educational programs within the school and community, and cessation programs.

Chapter seven evaluates the magnitude of smuggling in Indonesia.

Chapter eight discusses legislative strategies, first examining the rationale behind a comprehensive ban on advertising, promotion, and sponsorship.

Chapter nine discusses clean air laws, packaging and labeling issues, disclosure of important content and emissions, and international experience with litigation.

The book ends with Chapter ten discussing the WHO Framework Convention on Tobacco Control (FCTC) and existing legislation in Indonesia.

We gratefully acknowledge everyone in the government and non-governmental organizations who participated in the process of finalizing this book over nearly one year. Our grateful thanks to WHO-Indonesia for their assistance in printing of this book, also thanks and appreciation to Dr Sarah L Barber for her technical assistance since the beginning until the finishing of this book

We hope that this information will lead us one step closer to a rationale and effective evidence-based legislations and policies for tobacco control. According to the continuously developing data and information, it is necessary to regularly review the content of material of this book. We are aware that this book is far from perfect. Any critics and recommendations will be most welcome.

Jakarta, March 2004

A handwritten signature in black ink, appearing to read 'Anhari Achadi', written in a cursive style.

DR. Anhari Achadi
Head, Tobacco Control Task Force
Ministry of Health, Republic of Indonesia

Acknowledgments

A Core Technical and Editing Team compiled this book based on material and initial drafts resulting from the efforts of a group consisting of Anhari Achadi and Soewarta Kosen, Ministry of Health, Republic of Indonesia; Adviser to the Minister of Health, and Head of the Tobacco Control Task Force, MoH; Triasih Djutaharta and Abdillah Ahsan from the Demographic Institute, Faculty of Economics, University of Indonesia; Syarifah Liza Munira, Widyastuti Soerojo, and Sarah Barber, WHO.

The book enormously benefited from overall review from the members of the MoH Tobacco Control Task Force; Farid Husain, Deputy for Health and Environment, Coordinating Ministry for Social Welfare Head, and Head of the Multi-Sectoral Tobacco Control Task Force; F A Moeloek; Head, Indonesian Medical Association; Puguh Irawan, Social Economist, Poverty and Labor Force Issues, Central Bureau of Statistics; Firman Lubis, Kusuma Buana Foundation; Ermalina, Executive Secretary, Indonesian Forum of Parliamentarians on Population and Development; Tjandra Yoga Aditama, LM3 (Smoking Problem Control Institution); Merdias Almatsier, Former Head of the National Committee (Komnas), Smoking Control Association. The final draft in English underwent review by WHO Geneva Tobacco Free Initiative (TFI) staff under the direction of Douglas Bettcher, Coordinator of the Framework Convention for Tobacco Control (FCTC); although WHO HQ is not responsible for errors.

The book also benefited from inputs from the Ministry of Health (MoH) namely, Yusmansyah Idris, Suyatmi, and Jonli Indra from the Directorate of Mental Health; Farida Sarkawi, National Institute for Health Research and Development; Osman Saragih, Directorate of Pharmaceutical Services and Medical Devices; Suginarti, Directorate of Medical Services and Dental Specialistic; R. Indira, Center for Health Policy and Research; Nuning Kurniasih, Center for Health Data and Information; Ismojowati SKM and Yussiana Ela from Center for Health Promotion; Guntur Ardana, Center for Occupational Health; and Sri Rahayu, National Agency for Drug and Food Control.

For **Chapter 1**, Hendro Hendratno, Demographic Institute, Faculty of Economics, University of Indonesia, contributed data on prevalence and consumption; Julianty Pradono, Center for Health Research and Technology, MoH contributed the analysis of passive smoke. We also thank Kartono Muhammad, Health Observer, for his valuable input in this chapter. **Chapter 2** is the result of research carried out by a technical team led by Soewarta Kosen, with its members: Soeharsono Soemantri, Coordinator National Health Survey, 2001, Center for Health Research and Technology, MoH; Yuwono Sidharta, Epidemiologist, MSH Consultant, Jakarta acted as clinical expert; Faculty of Medicine, University of Indonesia. The Core Team is grateful for external reviewers including Yusmansyah Idris, Directorate of Mental Health and Substance Abuse, MoH; Farida Sarkawi, Center for Health Research and Technology, MoH.

Preliminary data for **Chapter 3, 4 and 5** were collected by Triasih Djutaharta and Abdillah Ahsan, while editing and analyses were done by Sarah L Barber, Widyastuti Soerojo and Syarifah Liza Munira. We are grateful to the support from the following external reviewers of **Chapter 3**: Farid Husain, Deputy for Health and Environment, Coordinating Ministry for Social Welfare; Head, Multi-sectoral Tobacco Control Task Force; Anhari Achadi, Adviser to the Minister of Health, and Head of the Tobacco Control Task Force, MoH; Erna Karmawati, Acting Head of Research and Development, Ministry of Agriculture; Hasanuddin Ibrahim, Director of Seasonal Crops, Ministry of Agriculture; Edison Situmorang, Adviser to the Minister, Ministry of Labor and Transmigration; Stephen Marks, Professor of Economics, Pomona College; Puguh Irawan, Social Economist, Poverty and Labor Force Issues, Central Bureau of Statistics; Ermalina and Sri Utari Setyawati from the Indonesian Forum of Parliamentarians on Population and Development (IFPPD); Yose Rizal Damuri, Department of Economics; CSIS; University of Indonesia; and Tony K., Coordinating Ministry for Social Welfare.

Chapter 5 benefited substantially from the comments of Erlangga Mantik, Head, Sub-Directorate of Excise, Ministry of Finance; Sudirman, Sub-Directorate of Excise, MoF; Ayda Yurekli, Health Economist, World Bank; Jack Molyneaux, Senior Economist, RAND Association, Consultant to the Ministry of Agriculture; Stephen Marks, Department of Economic, Pomona College, Firman Lubis, Executive Director, Kusuma Buana Foundation.

Data and analyses for **Chapter 6, 7, 8, 9 and 10** were carried out by the Core Technical and Editing Team, Sarah L Barber, Widyastuti Soerojo, Anhari Achadi, and Syarifah Liza Munira. We are also grateful to the support from the following external reviewers: A. Retno Tyas Utami, Chief, Sub-Directorate for the Review Copy Drug and Biological Products, NADFC; Hary Wahyu T, Chief Sub-Directorate Evaluation of Specific Use of Therapeutic Products, NADFC; Engko Sosialine, M.Biomed, Chief Division of Review of New Drugs, Channel I & III, NADFC; Suyatmi, MM, Directorate of Mental Health; Puguh Irawan, Central Bureau of Statistics; Abdillah Ahsan, Demographic Institute, University of Indonesia; Meidia Octarina, Office of Deputy II, Coordinating Minister for Social Welfare; Firman Lubis, Yayasan Kusuma Buana; Widjajati, LM3; Ahmad Hudoyo, Komnas PMM; Kartono Muhamad; Jonli Indra, Directorate of Community Mental Health; and Meliani Sutanto.

We also thank Retno Sulistyowati, who provided administrative support and Meliani Sutanto, who translated the materials. Financial support was provided by WHO Indonesia.

The Technical and Editing Team:

Anhari Achadi
Soewarta Kosen
Widyastuti Soerojo
Sarah Barber

Indonesia: The Trash Bin Of Nicotine

Taufiq Ismail

To an old friend,
Dr Achmad Suyudi

Indonesia is a paradise, staggeringly friendly toward smokers
If heavens are classified by the number of skies protecting them
Then this country of ours is the seventh heaven

Indonesia is a vast trash bin that contains all garbage of nicotine
This nicotine trash bin is extraordinarily huge
An expanse stretching from the west tip to the east tip

Traversing a distance that covers 3 time zones
That is an 8-hour ride on a jet plane
10 days of sea journey
one year if you ride a Sumbanese horse
or 5 year of a daily ride on the *kuda kepang Ponorogo* ¹⁾

This trash bin is extremely huge
Not only nicotine waste goes into it, but also thrown into this bin are
Various liquids, powders, aromas and colors
Alcohol, heroin, *sabu-sabu* ²⁾, ecstasy and marijuana
All kinds of toxins and residues, such as materialism and porn VCDs
Do name all varieties of waste of the world
Agape, our mouths take them all in

All these, because our gates are open wide
Friendly, politely, we accept all the garbage sent us

Before the airport gates, because of the urgent foreign investment
Because we simply can't resist the mouth-watering fees and bribes
Bowing so deep we intone,

“Please come in all
Monggo, monggo mlebet, dipun sakecakaken ³⁾
(Please, please come in, make yourself comfortable)
Sog asup, sadayana, asup, asup ⁴⁾
(Please, please come in everybody)
Hai lai ka talok, bahe banalah, angku, bahe banalah” ⁵⁾
(Are you able to do it, if you could, Mister, just do it)

This trash bin is astonishing in its capacity
Those vendors of nicotine, in whose homelands
Were beaten black and blue in the courtrooms, dodging fines of billions of dollar

Exposed, their fraudulent acts, after killing millions of their smokers

Chased away, helter-skelter running to the third world
And with inferiority feelings uncommonly deep
We welcome them all

“Monggo, monggo den linggih rumiyin ⁶⁾

(Do please sit down, o master)

Ngersaakane menopo den bagus ⁷⁾

(What would you have, oh master?)

Mpun ngendiko mawon ⁸⁾

(Do say your command)

Aih aih si aden, kasep pisan ⁹⁾

(Oh, oh, master, so good looking are you)

Tos lami sumping, di dieu, Indonesia? ¹⁰⁾

(Have you been here long, in Indonesia?)

Alaa rancak bana oto angku ko ¹¹⁾

(Oh, such a lovely car that you have)

Baa caronyo kami, supaya.. ” ¹²⁾

(How can we also...)

With undue respect in huge amount
The nicotine traders from countries far and away in the horizon
Spreading diseases of smoking and bringing the death angels to the children of their
nations
Tangled in webs of lawsuits and buried under piles of evidence
To the third world they have escaped
And in their honor have we rolled out the red carpet
Then the glamour of advertisements deceived our nation
This is the fate of a poor nation and a weak government
Incoming revenues are our orientation, all of us rely on it.

2000, 2002

Notes:

- 1) *Kuda kepang Ponorogo* is the wooden and paper pony that performers in the traditional folk plays (*reog*) in Ponorogo, East Java, use to depict horsemanship
- 2) The local name for crack
- 3) Javanese dialect in East and Central Java
- 4) Sundanese in West Java
- 5) Minang dialect in West Sumatra
- 6) Javanese
- 7) Javanese
- 8) Javanese
- 9) Sundanese
- 10) Sundanese
- 11) Minang dialect
- 12) Minang dialect

Un-official translation by Mrs. Santi Soekanto

Table of Contents

Foreword from the Minister of Health	i
Preface	ii
Acknowledgments	iv
Poem By Taufik Ismail	vi
Table of Contents	viii
Executive Summary	xi
Body of Report	1-123
Annexes	126
Poem by Taufik Ismail	

Section I Data for a Strategic Plan

CHAPTER 1 Cigarette Consumption and Smoking Prevalence

1.1	Cigarette Consumption	1
1.2	Smoking Prevalence	2
1.3	Age of Initiation of Smoking	6
1.4	Global Youth Tobacco Survey (GYTS)	7
1.5	Smoking Prevalence and Cigarette Consumption by Socio-Economic Group	9
1.6	Exposure to Passive Smoke (Passive Smokers)	11

CHAPTER 2 The Burden of Tobacco Use

2.1	Health Risk to the Smoker	13
2.2	Health Risk of Environmental Tobacco Smoke (ETS)	15
2.3	Nicotine Addiction	19
2.4	Carbon Monoxide and Tar	21
2.5	Clove Cigarettes, Eugenol and Other Additives	22
2.6	Burden of Disease Attributable to Tobacco	24
2.7	Burden of Tobacco Use at the Household Level	26
2.8	Burden of Tobacco related Illness at the Individual Level	27

CHAPTER 3 Tobacco Leaf Production

3.1	Tobacco Leaf Production	29
3.2	Land Devoted to Tobacco Cultivation	31
3.3	Tobacco Prices	33
3.4	Tobacco Farming Employment	36
3.5	Income of Tobacco Farmers	38
3.6	Tobacco Trade	39

3.7	Clove Production	42
3.8	Land and Employment Dedicated to Clove Farming	43
3.9	Clove Price	45
3.10	Clove Trading	46
CHAPTER 4	The Tobacco Manufacturing Industry	
4.1	Cigarette Production	48
4.2	Market Share	49
4.3	Cigarette Companies	51
4.4	Employment in Tobacco Manufacturing Sector	53
4.5	Tobacco Trade	56
4.6	Policies of the Government of Indonesia Towards the Tobacco Manufacturing Industry	59
Section II	Key Strategies	
CHAPTER 5	Increasing Price and Taxes	
5.1	The Effect of Increasing Tobacco Prices on Cigarette Consumption and Government Revenue	61
5.2	Cigarette Prices	62
5.3	Government Revenues from Tobacco Excise Taxes	64
5.4	How the Excise Tax for Tobacco Products are Determined	67
5.5	Household Tobacco Expenditure and Preferences	71
5.6	Impact of Cigarette Price Increase	73
5.7	The Impact of Tobacco Taxes on the Poor	75
CHAPTER 6	Public Awareness, Education, and Cessation Programs	
6.1	Refusing the Assumptions: Consumer Sovereignty and Tobacco	78
6.2	Promoting Independent Research	80
6.3	School Education Programs	81
6.4	Public Education Programs	83
6.5	Cessation Programs	84
CHAPTER 7	Strategies for Controlling the Supply of Tobacco	
7.1	Why Smuggling of Tobacco Products is a Health Problem	87
7.2	Factors that Contribute to Smuggling: Industry Compliance and Lack of Law Enforcement	87
7.3	The Magnitude of Smuggling in Indonesia	88
7.4	Preventing Smuggling: Law Enforcement and Penalties,	

	Limiting Duty Free Sales, Packaging and Labeling, Licensing, Regional Cooperation	88
7.5	Tobacco Supply and Farming	90
CHAPTER 8	Legislative Measures: Overall Banning on Advertisement, Promotion and Sponsorship	
8.1	Why advertising and promotion is a public health issue	92
8.2	Direct Advertisement in Electronic and Print Media	94
8.3	Indirect Advertisements: Sponsorship, Promotion, Free Samples, paid advertisements in Films	95
8.4	Partial advertising bans are not effective	96
8.5	Comprehensive Banning of Advertisement does Free Speech	96
CHAPTER 9	Clean Air Laws, Restrictions on Tobacco Industry Promotion to Children and Adolescents, Packaging and Labeling, Health Warning, and Litigation	
9.1	Clean Air Laws	98
9.2	Tobacco Industry promotion to youth	99
9.3	Packaging and Labeling	101
9.4	Health Warnings	102
9.5	Tobacco industry conduct and litigation	103
CHAPTER 10	The Framework Convention on Tobacco Control (FCTC)	
10.1	What is the FCTC?	107
10.2	Existing regulations in Indonesia	109
10.3	Key aspects of the FCTC and its comparison with PP 19/2003	110
ANNEXES		
1.	Government Ministries related to tobacco control, and non-governmental organizations	
2.	Previous research about tobacco control in Indonesia	

Executive Summary

Tobacco use and health effects

Given its large population and smoking prevalence, Indonesia ranks fifth among countries with the highest tobacco consumption globally. Consumption has increased steadily since the 1970s. Furthermore, smoking prevalence among adults 15 years or older increased from 26.9% in 1995, to 31.5% in 2001. This largely reflects an increasing smoking prevalence among males from 53.4% to 62.2% during this period. Only 1.3% of women reported smoking in 2001. The most striking difference can be seen by educational levels, whereby 73.0% of males with no education smoke compared with 44.2 % of males with college education.

Youth are particularly vulnerable. Smoking habits start during childhood, and age at uptake is decreasing rapidly. The average age at uptake was 19 years in 1995, and declined to 18.4 in 2001. The vast majority of smokers (68.8%) started their habit before they turned 19 years old.

The negative health impacts of tobacco use have long been established, and lung cancer is the world's leading cause of preventable death. Tobacco use is estimated to cause 70% of deaths from chronic obstructive pulmonary disease, chronic bronchitis and emphysema; 40% of strokes; and 90% of lung cancer cases. In 2020, the WHO projects that tobacco-related illnesses will become the largest single health problem, causing an estimated 8.4 million deaths globally per year. It is estimated that half of these deaths will occur in Asia given rapidly increasing tobacco use. Deaths in Asia will increase nearly four-fold from 1.1 million in 1990 to 4.2 million in 2020.

Every independent scientific body that has comprehensively evaluated ETS has concluded that ETS is harmful to human health, and children are particularly vulnerable. In 1999, more than one in two Indonesian households had at least one smoking household member (57%). Nearly all smokers (91.8%) smoke at home in the presence of family members. It is estimated that the number of Indonesians regularly exposed to environmental tobacco smoke in their own homes exceeds 97 million, among which 43 million are children.

Nearly all (88%) of Indonesian smokers prefer *kreteks*, or clove cigarettes. *Kreteks* are largely comprised of tobacco (60-70%) and, therefore, carry all of the same health risks as other tobacco products.

Tobacco and clove farming

Indonesia contributes about 4.4% of the world's arable land devoted to tobacco farming, and 2.3% of global tobacco leaf production. In contrast, four countries produce almost 65% of the world's supply of tobacco leaf: China, Brazil, India and United States of America. Almost all (96%) of tobacco production in Indonesia comes from three provinces: East Java, Central Java and West Nusa Tenggara. In 2001, 0.80% of total

arable land was used to grow tobacco, and this proportion has declined since the early 1990s.

An estimated 90.8 million people were formally employed in 2001, and the proportion of people employed in the agricultural sector has steadily declined over time. An estimated 43.8% of the formal workforce is employed in the agricultural sector, 32.6% in the service sector, and 23.6% in the industrial sector. In 2002, the number of farmers involved in tobacco farming was estimated at about 900,000 people, which comprises approximately 2% of the total agricultural labor force and less than 1% of total formal sector employment.

Clove is the main raw material in the production of kretek cigarettes after tobacco, and Indonesia produces 63 % of global supply. Most of clove farms (90%) are owned by small farmers; 81.8 % of land used for clove farming is located on 3 islands: Sulawesi, Java, and Sumatera. Based on data from Ministry of Agriculture, however, domestic clove production level cannot meet domestic consumption. Clove imports increased sharply between 1998 and 2001. Due to the clove farmers' dissatisfaction with domestic prices, however, the Ministry of Industry and Trade prohibited clove imports into Indonesia from mid 2002.

Tobacco manufacturing

Cigarette production increased rapidly between 1969 and 2000, from 14.3 to 230.7 billion sticks. Excise tax ribbon orders declined to 210.8 billion sticks in 2002. More than 97% of excise tax ribbon orders are for cigarettes: machine made *kreteks*, handmade *kreteks*, and machine made white (tobacco only) cigarettes. Three large companies dominate an estimated 76% of the cigarette market: Gudang Garam, Djarum, and Sampoerna.

Tobacco's importance in manufacturing employment has fallen significantly since the 1970s. Tobacco employment comprised 38% of total manufacturing employment in 1970, and only 5.6% in 2000. The number of large and medium size companies involved in tobacco manufacturing increased from 785 in 1998 to 861 in 2001, and now comprises about 3.8% of the total number of manufacturing industries. About 2/3rds of these companies (66.5%) were involved in drying and processing tobacco and 26% were *kretek* manufacturers. It is estimated that an additional 155 very small companies existed in 2002; this number is rapidly increasing, however, because tobacco excise tax levels are lowest for companies producing 6 million sticks or less annually.

Tobacco manufacturing employment increased slightly between 1996 and 2000, and comprised 5 to 6% of employment in the manufacturing sector, and 1% of total industrial sector employment. The most important factors influencing employment in the tobacco industry are mechanization and other technologies, which improve efficiency. The proportion of production costs devoted to labor in hand rolled *kreteks*, for example, is 12% compared to 0.4% in machine made *kreteks*. Labor costs, however, remain low in Indonesia, and tobacco manufacturing pays 2/3rds of the average monthly wages in the manufacturing sector. The vast majority of people working in tobacco manufacturing are women (82.3%).

Tobacco trade

The value of tobacco leaf imports into Indonesia exceeds the value of exports by US\$ 44 million. Most imported leaves are of the Virginia type, which is used as raw material in the production of white cigarettes. The net export value of cigarettes exceeded US\$ 176 million in 2001. The value of both manufactured and unmanufactured tobacco products, therefore, was approximately US\$ 54 million. White cigarettes exports contributed to half (54%) of the value of all cigarette exports, and 88% of white cigarettes are exported to Thailand and Cambodia. More than 72% of kretek exports are destined for Malaysia. An estimated 11% of cigarettes produced domestically were exported in 1999 and this has increased slightly over time. The value of cigarette exports, however, contributed less than 1% to the total value of exports in 2002.

Tobacco taxes

In 2002, tobacco excise tax accounted for 9.8% of total government revenue. Although the GoI usually adjusts the excise tax rates to achieve revenue targets at least once in a given year, the rates were not adjusted in 2004 given that the government did not achieve their targets for excise tax revenue by mid-2003. However, tax revenues increased substantially in nominal terms from Rp 23 trillion (2002) to Rp 26.4 trillion (2003). Tobacco excise comprises more than 90 % of total excise tax revenue, and the largest proportion this revenue is from machine made clove cigarettes (69.4%), followed by handmade clove cigarettes (23.7%) and machine made white cigarettes (6.8%). The proportion of tobacco excise tax revenue from handmade clove cigarettes has increased from 13.6% of total tobacco excise tax revenue in 1995 to 23.7% in 2002. This increase could be attributed to the tiered taxation system, with the lowest tax rates for handmade kreteks, combined with the ease of starting small hand-rolled kretek businesses.

The tobacco excise tax rates and base price are based on production scale and product type. Machine made kreteks and white Cigarettes are taxed between 26% and 40% depending on production scale. Excise tax rates for handmade clove cigarettes are between 4% and 22%. Existing legislation establishes that excise taxes for tobacco products should not exceed 55 % of the retail sales price.

The response to the tiered scales for tax and base price is two-fold. At the manufacturing level, the tiered rates provide an incentive for large firms to buy up or contract small firms to manufacture cigarettes and take advantage of the lower tax and pricing rates. At the individual level, cigarettes and other tobacco products are substitutes for one another. An increase in the price of one type of tobacco product, for example, may lead to an increase in the consumption of cheaper tobacco products. Household spending on tobacco products averaged 9.6% in 2001, a substantial increase from 6.4% in 1995.

Key strategies

Price and tax. Globally, increasing the price of tobacco products has been demonstrated as the single most effective strategy for reducing the devastating health burden of tobacco use. In contrast to commonly held beliefs, higher tobacco taxes will not reduce government revenues – on the contrary, an increase in tobacco tax rates will increase

revenues. Studies in Indonesia and other countries in Southeast Asia have shown that tobacco use is not highly responsive to price increases, or the percentage increase in price is less than the percentage reduction in demand. An increase in price decreases tobacco consumption, but by a smaller proportion relative to the price increase. With higher cigarette taxes, fewer packs are sold. Given a higher tax per pack, however, the result is greater total government tax revenue. Studies in Indonesia indicated that a 10 % price increase would decrease cigarette consumption between 3.5 % and 6.1%, whereas government tax revenues would increase by 6.7 to 9 %. Tax as a proportion of the total cigarette price averages 31% in Indonesia, which is one of the lowest tax rates in the region next to Cambodia.

Comprehensive ban on tobacco advertising, promotion, and sponsorship. Studies have concluded that tobacco advertising increases consumption in several ways: creating an environment where tobacco use is seen as positive and familiar, reducing smokers' motivation to quit, encouraging children to experiment with tobacco, and discouraging open discussion of the hazards of tobacco use because the revenues gained from advertising. Partial bans on advertising, promotion, and sponsorship have little or no effect. When some types of advertising are banned, companies simply shift from one type of advertising to another. In Indonesia, cigarette advertisements comprised approximately 7% of revenues from all major types of TV advertising (2002). Most companies, however, rely heavily on indirect advertising methods, including sponsorship of sports, concerts, and cultural events; distribution of free samples or coupons for discounts on tobacco purchases; or paid advertisements in films and among film stars. This type of subtle advertisement is very effective in creating a positive image of smoking among youth. Governments have a role in restricting the advertising and promotion of addictive substances to its citizens, particularly given the tobacco industry's aggressive marketing campaign to children and adolescents.

Public education and information. People generally assume that smokers make their own informed choice about buying cigarettes or smoking. Making an informed choice, however, assumes that people fully understand the risks of smoking and also that a smoker's decision does not affect anyone else. In Indonesia, nearly 70% of all smokers start their habit before 19 years of age. Children and adolescents may not be able to fully understand the serious health risks of tobacco use, which occur about 20 to 25 years after starting to smoke. Furthermore, tobacco contains nicotine, a highly addictive substance. Very few people who want to quit successfully do so because of nicotine addiction. In addition, smokers impose physical and financial costs on others, including the health risks of exposure to environmental tobacco smoke.

Clean air laws. About one in three adult Indonesians smoke (31.5%). Smoking in public places violates the rights of non-smokers to clean air and imposes physical and financial costs on others. Environmental tobacco smoke (ETS) is carcinogenic to humans, and there is no "safe" level of exposure. Nonsmokers married to smokers have an increased risk of lung cancer and heart disease, children regularly exposed to ETS have demonstrated increased rates of chronic respiratory infections, middle ear infections,

reduced lung function, asthma, and sudden infant death syndrome (SIDS). An estimated 43 million Indonesian children are regularly exposed to ETS. Research has also conclusively demonstrated that banning or severely restricting smoking in the workplace pays economic dividends. It reduces costs to the employer in cleaning, maintenance, risk of fires, and property damage from tobacco smoke. Even the most sophisticated ventilation technology available cannot remove the harmful toxins from ETS from the air.

Packaging and Labeling. The limited space on tobacco product packaging serves 2 competing purposes: providing health warnings and promoting the tobacco product. Without any government regulation, the health warning will be very small so that there is more space to promote the product. Ideally, health warnings should be 30% (ideally 50%) of the packaging surface area, easy to read, clearly worded with rotating messages and pictures. Misleading or false promotion should be prohibited, including such words as “low tar,” “light,” and “mild.” This is considered consumer fraud because “mild” and “light” advertisements aim to convince smokers that they are using a less dangerous product. Evidence has demonstrated that tobacco products with low tar yields as measured by ISO industry standards have the same negative health outcomes as other tobacco products. Printing tar and nicotine levels on cigarette packages is a form of false and misleading advertising and should be prohibited.

Framework Convention on Tobacco Control (FCTC)

The WHO Framework Convention on Tobacco Control is the world’s first international treaty on public health. It aims to protect future generations from the devastating health, social, environmental, and economic impact of tobacco use. The FCTC is a legally binding instrument within a global public health strategy to support the WHO Member States in developing national tobacco control programs. The Government of Indonesia participated fully in the four years of negotiations preceding the World Health Assembly (WHA)’s unanimous adoption of the FCTC text in May 2003.

Chapter 1. Cigarette Consumption and Smoking Prevalence

1.1. Cigarette Consumption

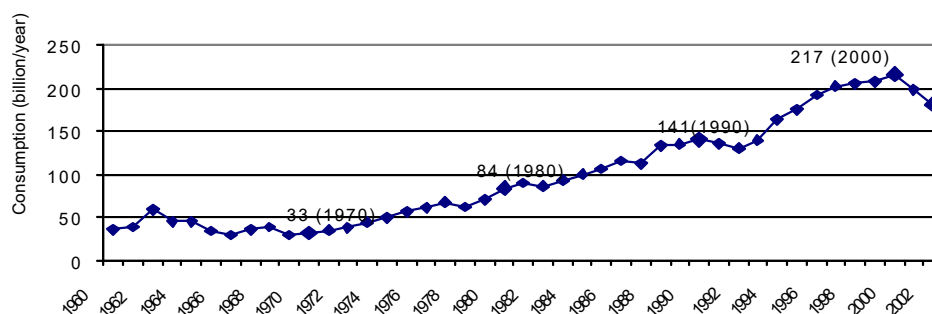
1.1.1 Cigarette Consumption. In 2002, Indonesians consumed 182 billion sticks of cigarettes. Indonesia is fifth among the ten countries with the highest cigarette consumption in the world.

Table 1.1
10 countries in the world with the highest cigarette consumption in 2002¹

No.	Country	2002 (billion sticks)
1	China	1,697.3
2	United States of America	463.5
3	Russia	375.0
4	Japan	299.1
5	Indonesia	182.0
6	Germany	148.4
7	Turkey	116.0
8	Brazil	108.2
9	Italy	102.4
10	Spain	94.3

1.1.2. Trends in Cigarette Consumption. Aggregate *cigarette consumption in Indonesia increased 7 fold between 1970 and 2000*, from 33 billion sticks in 1970 to 217 billion sticks in 2000. The highest increase (159 %) occurred between 1970 and 1980, i.e. from 33 billion 84 billion sticks, and coincides with the mechanization of the clove cigarette industry in 1974. In addition, the expansion of the transmigration programs that moved people from densely populated Java to the outer islands may also have expanded the clove cigarette market.

Graph 1.1
Cigarette consumption Indonesia (in billion sticks) 1960-2002²



¹ USDA data on consumption for Indonesia is based on production reports from excise tax ribbon orders, including imports and excluding exports http://www.fas.usda.gov/psd/complete_files/TOB-1222000.csv

² 1960-1999 from USDA in de Beyer and Yurekli

2000-2002 from USDA report 2002 (www.fas.usda.gov/scripts/gain_display_report.exe?)

Consumption continued to increase by 67 % between 1980-1990, and by 54 % between 1990-2000. Three factors may have affected consumption in the 1990s. A slight decline can be seen in the early 1990s, probably tied to the initiation of a clove monopoly and concomitant price increase in a major ingredient of domestically produced and consumed cigarettes. A second factor related to increases in consumption is the lifting of a prohibition on any television advertising enforced in the early 1990s. In addition, the economic crisis occurred in 1997 and 1998, although, quite remarkably, consumption continued to increase during this period.

Based on excise tax ribbon sales from the Excise Bureau,¹ consumption declined to 199.3 billion sticks in 2001, and 182.0 billion sticks in 2002. Based on extrapolations from household data, consumption in 2001 was 214.3 billion sticks, a much smaller decline. Such a discrepancy between household reports of smoking consumption and excise tax bureau estimates, household data collection efforts to regularly measure consumption are extremely important.

1.2 Smoking Prevalence

1.2.1 Adult Smoking Prevalence. In 2001, smoking prevalence among adults 15 years or older was 31.5 %, an increase from 26.9 % in 1995 (Table 1.2). Prevalence differs by gender, living area, age group, income and educational level.

1.2.2. Prevalence by Sex. Adult male smoking prevalence is higher compared with adult female smoking prevalence. In 2001, adult male smoking prevalence was 62.2%, compared with 1.3 % among females. Adult male smoking prevalence increased from 53.4 % (1995) to 62.2 % (2001). Female smoking prevalence decreased from 1.7 % (1995) to 1.3 % (2001) (Table 1.2).

Graph 1.2
Smoking prevalence by males and females, 1995 and 2001

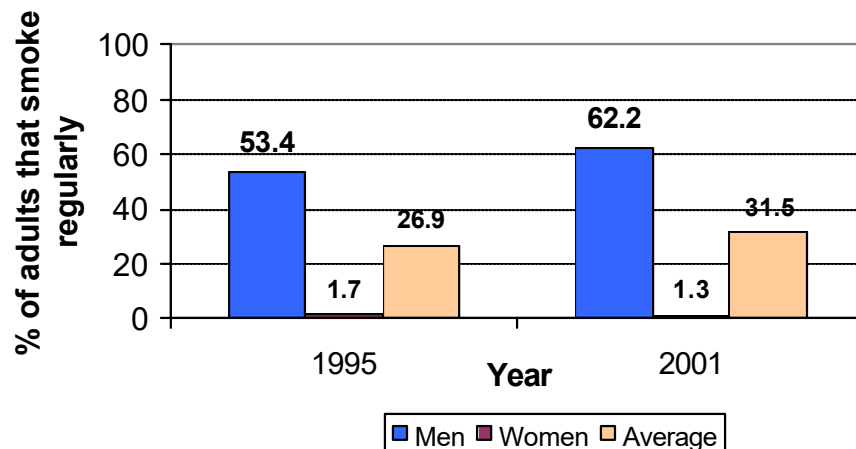


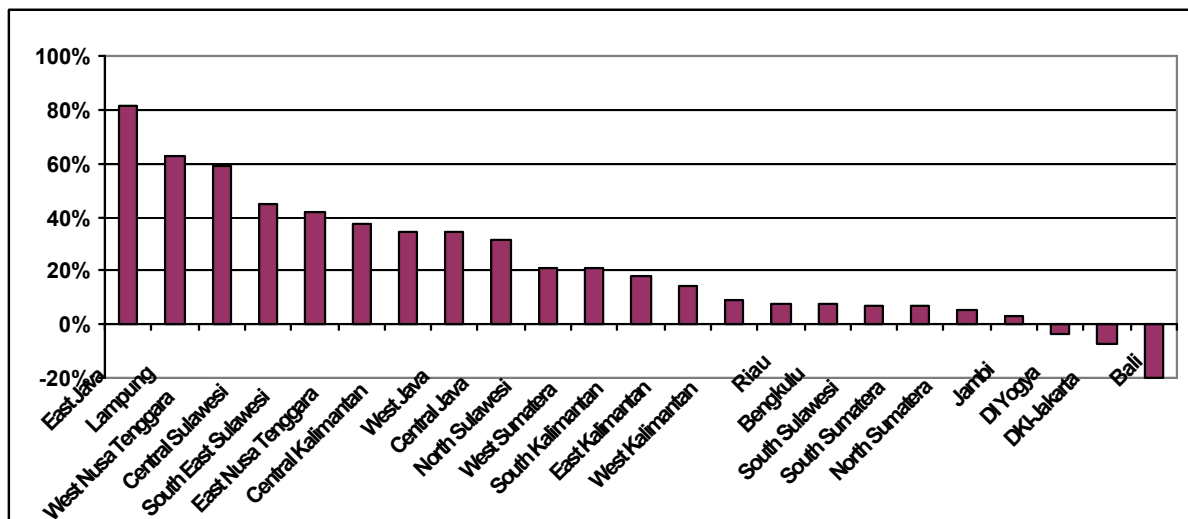
Table 1.2.
Smoking prevalence among adults 15 year or older by geography and sex, 1995 and 2001³

Geography	1995			2001		
	Male	Female	Average	Male	Female	Average
Rural	58.3	2.0	29.5	67.0	1.5	34.0
Urban	45.1	1.2	22.6	56.1	1.1	28.2
Average	53.4	1.7	26.9	62.2	1.3	31.5

1.2.3. Smoking Prevalence by Geography (Urban-Rural). *Rural populations have a higher smoking prevalence compared with urban populations.* Smoking prevalence in rural areas is 34.0 %, compared with 28.2% in urban areas. Smoking prevalence among adult males is 67.0 % in rural areas and 56.1 % in urban areas; among adult females, smoking prevalence is 1.5 % in rural areas and 1.1 % in urban areas (Table 1.2).

1.2.4. Smoking Prevalence by Province. At provincial level, the highest male smoking rates are in Gorontalo (69%) compared with Bali (45.7%) (Table 1.3). The largest percentage increase in average smoking prevalence occurred in East Java, Lampung with an increase exceeding 60% between 1995 and 2001 (Graph 1.3). Smoking prevalence among women more than doubled between 1995 and 2001, in Papua, East Kalimantan, Central Java and Bali, although overall prevalence remains very low.

Graph 1.3. Percentage change in average smoking prevalence, by province 1995-2001



³ Processed from National Socio-Economic Survey 1995 and 2001. Aceh and Maluku not included in 2001 because of security reasons. Based on the WHO definition of smoking prevalence for adults (15 yrs or older) and defined as smokers who currently smoke and have smoked every day for 6 months or more. See Tobacco Control in Developing Countries, Appendix 1; <http://www1.worldbank.org/tobacco/tcdc/465TO476.PDF>

Table 1.3.
Adult smoking prevalence by province and sex, 1995 and 2001⁴

Province	1995			2001		
	Male	Female	Average	Male	Female	Average
Aceh	52.8%	2.2%	26.9%	--	--	--
North Sumatera	59.8%	2.5%	28.7%	59.7%	1.7%	30.3%
West Sumatera	54.2%	1.5%	27.6%	67.1%	2.5%	33.3%
Riau	58.6%	3.7%	31.0%	63.3%	2.1%	33.4%
Jambi	57.2%	1.7%	29.2%	57.4%	1.5%	30.1%
South Sumatera	61.3%	1.7%	31.6%	64.8%	1.7%	33.7%
Bengkulu	61.1%	2.4%	32.3%	66.7%	0.6%	34.8%
Lampung	42.6%	1.8%	22.1%	67.4%	1.6%	35.9%
Bangka Belitung	--	--	--	58.5%	1.3%	30.3%
DKI-Jakarta	58.3%	1.8%	29.8%	54.5%	1.5%	27.7%
West Java	52.4%	1.3%	26.1%	68.0%	1.7%	35.0%
Central Java	47.2%	0.5%	23.5%	61.5%	1.0%	30.8%
DI Yogya	55.7%	1.3%	27.2%	53.7%	0.2%	26.3%
East Java	33.1%	0.9%	16.9%	62.4%	0.8%	30.7%
Banten	--	--	--	66.3%	0.8%	33.6%
Bali	61.8%	0.5%	29.2%	45.7%	1.3%	23.3%
West Nusa Tenggara	38.2%	1.0%	18.8%	62.6%	0.4%	29.9%
East Nusa Tenggara	39.8%	0.9%	20.1%	56.6%	0.5%	27.6%
East Timor	53.9%	6.0%	30.2%	--	--	--
West Kalimantan	54.7%	2.4%	28.7%	58.6%	2.9%	31.4%
Central Kalimantan	46.3%	2.3%	23.6%	60.2%	1.0%	31.8%
South Kalimantan	42.1%	1.9%	22.5%	51.8%	1.2%	26.6%
East Kalimantan	50.6%	0.9%	25.6%	55.3%	2.6%	29.2%
North Sulawesi	49.3%	3.3%	26.2%	61.2%	1.9%	31.7%
Central Sulawesi	48.7%	2.2%	23.7%	64.6%	3.0%	34.3%
South Sulawesi	51.1%	2.4%	26.1%	58.5%	1.2%	27.9%
South East Sulawesi	40.9%	1.0%	21.1%	58.7%	1.7%	29.9%
Gorontalo	--	--	--	69.0%	0.9%	35.2%
Maluku	41.7%	4.3%	23.1%	NA	NA	NA
Irian Jaya	55.0%	0.6%	27.3%	54.6%	3.7%	29.7%
Average	53.4%	1.7%	26.9%	62.2%	1.3%	31.5%

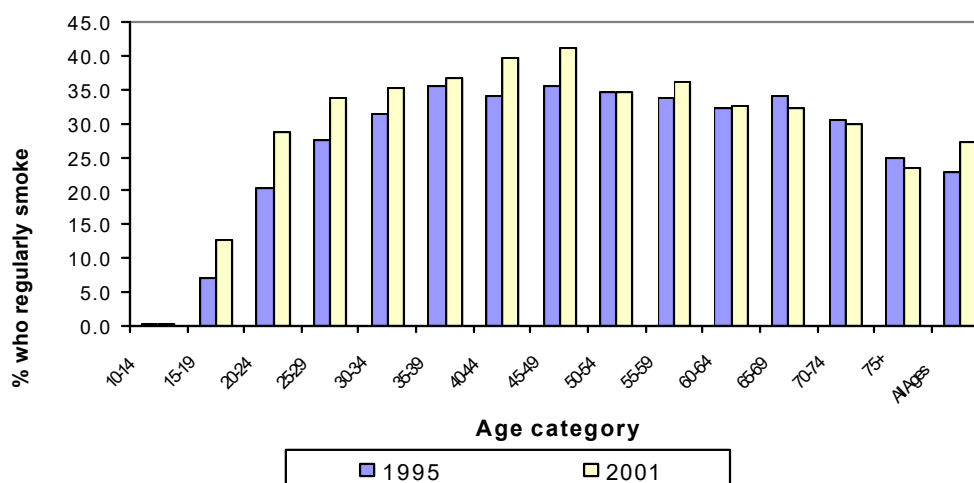
⁴ Processed from National Socio-Economic Survey 1995 and 2001. Aceh dan Maluku not included in 2001 because of security reasons. Based on the WHO definition of smoking prevalence for adults (15 yrs or older) and defined as smokers who currently smoke and have smoked every day for 6 months or more. See Tobacco Control in Developing Countries, Appendix 1; <http://www1.worldbank.org/tobacco/tcdc/465TO476.PDF>

1.2.5. Smoking Prevalence by Age Group. Between 1995-2001, there was an *increase in smoking prevalence among all age groups*, except for males 70 years or older. The *highest increase occurred among 20 to 24 year olds (17.5 percentage points), 25-29 year olds (12.7 percentage points), and 15-19 year olds (10.5 percentage points)*. In 2001, smoking prevalence among all age groups from 25-29 years to 50-54 years exceeds 70 %, with the highest prevalence (74.3 %) among males aged 45-49 years. In 1995, smoking prevalence was greater than 60% among age groups 30 to 34 years until 65-69 years. A shift occurred in 2001, with higher smoking prevalence among younger age groups, i.e., 20-24 years and 25-29 years (Table 1.4, Graph 1.4).

Table 1.4
Smoking prevalence by age group 10 years or older according to age group and gender 1995 and 2001⁵

Age Group	1995			2001		
	Males	Females	Average	Males	Females	Average
10-14	0.5	0.1	0.3	0.7	0.0	0.4
15-19	13.7	0.3	7.1	24.2	0.2	12.7
20-24	42.6	1.0	20.3	60.1	0.6	28.8
25-29	57.3	1.1	27.4	69.9	0.6	33.7
30-34	64.4	1.2	31.5	70.5	0.9	35.3
35-39	67.3	1.7	35.6	73.5	1.3	36.6
40-44	67.3	2.3	34.2	74.3	1.9	39.6
45-49	68.0	3.1	35.7	74.4	2.2	41.3
50-54	66.8	3.4	34.5	70.4	2.6	34.8
55-59	66.1	3.3	33.9	69.9	3.0	36.3
60-64	64.7	2.8	32.2	65.6	2.8	32.6
65-69	64.3	3.8	34.0	64.7	2.7	32.2
70-74	56.9	3.1	30.6	59.2	2.1	30.0
75+	53.3	1.9	24.8	48.5	2.1	23.5

Graph 1.4. The increase in average smoking prevalence, by age group, 1995 and 2001



⁵ Processed from National Socio-Economic Survey 1995 and 2001. Aceh and Maluku not included in 2001

Table 1.5
Average number of cigarettes consumed by smokers 10 years or older
by age group and gender 1995 and 2001⁶

Age Group	1995			2001		
	Males	Females	Average	Males	Females	Average
10-14	7.2	13.9	7.8	8.5	12.8	8.7
15-19	7.8	10.7	7.9	8.9	6.9	8.9
20-24	9.3	8.7	9.3	10.2	9.2	10.2
25-29	10.2	8.3	10.2	11.3	9.4	11.2
30-34	10.9	7.8	10.8	11.7	8.2	11.7
35-39	11.5	8.1	11.4	11.9	8.4	11.8
40-44	11.7	7.3	11.5	12.0	8.7	12.0
45-49	11.5	7.4	11.3	12.1	9.7	12.0
50-54	11.1	7.2	10.9	11.6	8.2	11.5
55-59	11.0	7.5	10.8	11.5	8.2	11.4
60-64	10.9	9.2	10.8	10.7	7.3	10.5
65-69	10.5	6.6	10.2	10.3	9.4	10.3
70-74	10.2	8.1	10.1	9.9	8.0	9.8
75+	9.5	6.2	9.3	9.5	6.9	9.4
Average	10.6	7.9	10.5	11.2	8.5	11.2

1.3. Age at Initiation of Smoking

1.3.1 Trend Age at Smoking Initiation. The average age at smoking initiation is declining among smokers 15 years and older, *from an average of 18.8 years in 1995 to 18.3 years in 2001* (Table 1.6).

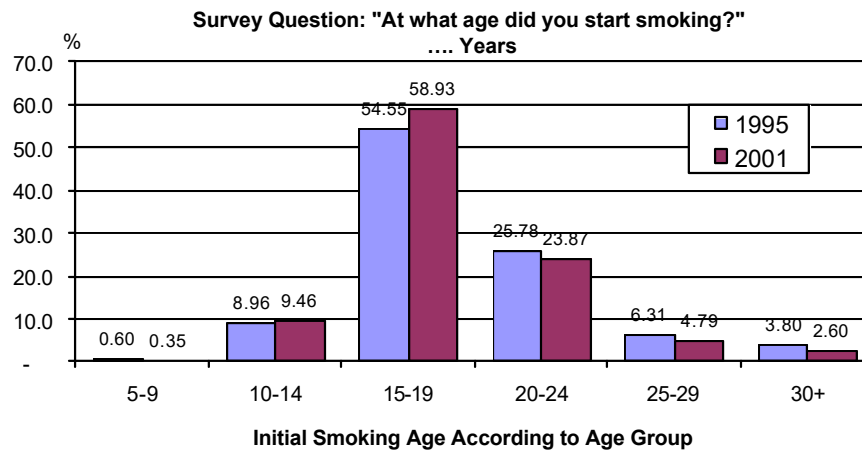
Table 1.6
Average initial smoking age of population aged more than 15 years⁶

Age group	Average change of initial smoking age (in years)	
	1995	2001
15-19	15.2	15.4
20-24	17.2	17.1
25-29	18.0	17.8
30-34	18.5	18.2
35-39	18.8	18.5
40-44	19.3	18.7
45-49	19.6	19.0
50+	23.7	22.5
Average age of smoking initiation (yrs)	18.8	18.3

1.3.2 Initial Age of Smoking by Age Groups. In 2001, 68.8 % of smokers 10 years or older started before the age of 19 years. In 1995, 64.1 % of smokers started before they were 19 years old (Graph 1.5).

⁶ Processed from National Socio-Economic Survey 1995 and 2001. Aceh and Maluku not included in 2001

Graph 1.5
Percentage of smokers (10 years or older) by age of smoking initiation, 1995 and 2001⁷



1.4. Global Youth Tobacco Survey (GYTS)

1.4.1. Purpose and Sample Size. GYTS is a surveillance system to look at the increase of tobacco use among children and adolescents around the world. Since 1999, this survey was conducted among school children in 75 locations in 43 countries, supported by WHO and CDC Atlanta.⁸

Table 1.7
Comparison of the samples in selected areas, GYTS 1999-2000⁹

Study location	# School Sample	Response Rate (students & schools)	# Students' Sample	% Students aged 13-15 years
Jakarta 2000	50	91.6 %	1490	71.8 %
Singapore 2000	72	84.0 %	9064	69.3 %
Guangdong 1999	45	92.1 %	2725	94.6 %
West Bengal 2000	71	83.6 %	1845	74.8 %
Bihar 2000	50	70.1 %	1958	74.9 %
Buenos Aires, 2000	44	84.7 %	2254	74.8 %
Santiago, 2000	49	84.3 %	3150	76.6 %
Lima, 2000	48	90.0 %	1647	75.0 %
Median of all studies	-	84.1 %	>230,000	66.2 % (Aver)
Minimum	1 (Montserrat)	55.2 % (N Mariana Islands)	129 (Montserrat)	42.7 % (South Africa)
Maximum	324 (USA)	96.5 % (Tiajan China)	16,416 (USA)	99.4 % (Tripura India)

⁷ Processed from National Socio-Economic Survey 1995 and 2001. Aceh and Maluku not included in 2001

⁸ Result up to 22 Feb 2002. Questionnaires and sample of GYTS on:

http://www.cdc.gov/tobacco/global/GYTS/questionnaire/GYTS_samplequestionnaires.htm

⁹ Translated from The Global Youth Tobacco Survey Collaborative Group, Tobacco Use among Youth: a cross country comparison. Tobacco Control 2002; 11: 252-270. Article is available at

<http://tc.bmjournals.com/cgi/reprint/11/3/252.pdf>

More than 230,000 students from 3,500 schools completed the GYTS up till the end of 2001. Globally among these 75 locations, the response rate ranged from 55.2% to 96.5%. Table 1.5 indicates the median value of the whole study as well the maximum and minimum values, and taking samples of several locations to compare with Jakarta: the Philippines, Singapore, Guangdong, West Bengal, Bihar, Buenos Aires, Santiago, and Lima.

1.4.2. Smoking Prevalence in GYTS. *33% of the school children participating in the GYTS have ever smoked. Compared to the average adolescents in the world, the percentage of adolescents who have ever smoked in Jakarta is higher, i.e. 46.7 %, even though it is still below other Latin American countries such as Buenos Aires, Santiago and Lima, which is around 55-72 %.*

1.4.3. Access and Number of Cigarettes per Day in GYTS. About 24% of adolescents participating in GYTS tried smoking before they were 10 years old, compared with 19 % in Jakarta. The percent of adolescents *that currently smoke in Jakarta is higher (21.8%) compared with the GYTS average (13.9%)* (Table 1.8). Among the 19% of adolescents in Jakarta reported smoking regularly, 3% reported smoking more than 6 sticks per day. The Singapore GYTS reported smoking prevalence among adolescents at 9%; among these children, 21% smoked more than 6 sticks per day.

Table 1.8
Smoking prevalence, access to cigarettes below 10 years of age
and number of cigarettes smoked per day, GYTS 1999 - 2000

Location of study	Ever smoked	(Among those who have ever smoked) % of those who have tried smoking before 10 years of age	At present using various types of tobacco products	Still smoking at present	(Among those who are smoking) % who smoke more than 6 sticks per day
Santiago 2000	71.5	15.8	38.3	38.4	5.6
Buenos Aires 2000	55.1	6.1	28.1	25.3	20.5
Lima 2000	54.6	13.5	21.8	18.6	2.6
Jakarta 2000	46.7	19.0	22.0	21.8	3.0
Singapore 2000	21.5	22.7	9.1	9.1	21.3
Guangdong 1999	21.6	37.7	10.3	4.5	19.4
Bihar 2000	19.5	39.5	59.9	13.9	2.3
West Bengal 2000	9.8	12.0	11.5	3.1	8.2
Median of all studies	33.0	23.9	18.7	13.9	9.4
Minimum	3.4 (Tamil Nadu, India)	6.1 (Buenos Aires, Argentina)	62.8 (Nagaland, India)	39.6 (Kokuimbo, Chili)	29.9 (Moskow)
Maximum	79.8 (N.Marianna Islands)	87.8% (Manipur, India)	3.3% (Goa,India)	0.5% (Goa,India)	1.0% (Tarapoto, Peru)

1.5. Smoking Prevalence and Cigarette Consumption by Socio-economic Group

1.5.1. Smoking Prevalence by Income. Nationally, the highest prevalence with a permanent pattern in the year 1995 and 2001 occurred in quantile 2 and 3, then the prevalence decreased with the increased income (Table 1.9).

Table 1.9
Smoking prevalence of population aged more than 15 years
according to income group, 1995 and 2001¹⁰

Income Group (Quintile)	1995			2001		
	Males	Females	Average	Males	Females	Average
1 (lowest)	57.8	2.2	27.5	62.9	1.7	30.0
2	56.5	1.8	28.7	65.4	1.2	33.0
3	55.0	1.7	28.3	64.0	1.3	32.9
4	51.6	1.4	26.5	61.2	1.3	31.8
5 (highest)	46.2	1.4	23.7	57.4	1.1	29.6
Average	53.4	1.7	26.9	62.2	1.3	31.5

1.5.2 Relation Between Cigarette Consumption and Level of Income. On average, the number of cigarette consumed by the population 10 years or older is 11.2 sticks per day in 2001. A pattern can be seen that consumption increases at the same time with the increased income. In other words, there is a *positive correlation between income and the number of consumed cigarettes* (Table 1.10). Females generally smoke less cigarettes than males. Consumption has increased between 1995 and 2001, from an average of 10.5 to 11.2.

Table 1.10
Average number of cigarettes consumed by smokers 10 years and older
by income group, Indonesia 2001¹⁰
(in sticks/person/day)

Income Group (Quintile)	1995			2001		
	Male	Female	Average	Male	Female	Average
1 (lowest)	9.7	7.1	9.6	10.2	7.5	10.1
2	10.4	7.4	10.3	10.9	8.1	10.8
3	10.6	7.9	10.5	11.2	8.1	11.1
4	11.0	7.9	10.9	11.6	9.4	11.5
5 (highest)	11.7	10.2	11.6	12.3	10.1	12.3
All Income Groups	10.6	7.9	10.5	11.2	8.5	11.2

1.5.3 Smoking Prevalence by Education. In 2001, the highest smoking prevalence is among primary school and senior high school graduates, 33.3% and 33.5%, respectively. This condition is different from 1995, where the highest prevalence was in non-educated/primary school non-graduates (29.3 %) and primary school graduates (27.3 %) (Table 1.11). When differentiated by gender, smoking

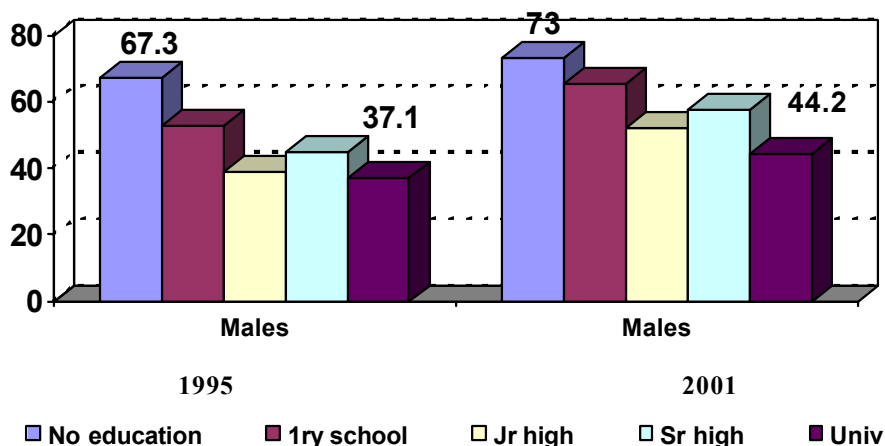
¹⁰ Processed from National Socio-Economic Survey 1995 and 2001. Aceh and Maluku not included in 2001

prevalence among those with no education and less than a primary school graduate in 2001, males had the highest smoking prevalence, i.e. 73.0 %. Prevalence among this group gradually decreased with an increased level of education, i.e. from 65.1 % in primary school graduates, 51.8 % in junior high school graduates, 57.7 % in senior high school graduates, and 44.2 % in university graduates. Within each gender, *the smoking prevalence in the educated tends to be lower compared to those who are not educated.*

Table 1.11
Smoking prevalence among the population 15 years of age or older by educational level, 1995 and 2001¹¹

Education Level	1995			2001		
	Males	Females	Average	Males	Females	Average
No-education, or <complete 1ry education	67.3	2.8	29.3	73.0	2.4	31.1
Primary school graduates	52.8	1.0	27.3	65.1	0.9	33.3
Junior high school graduates	38.6	0.8	21.3	51.8	0.6	27.8
Senior high school graduates	44.7	0.8	26.1	57.7	0.8	33.5
University graduates	37.1	0.6	23.0	44.2	0.3	25.2
Average	53.4	1.7	27.0	62.2	1.3	31.5

Graph 1.6.
Adult male smoking prevalence by educational level, 1995 and 2001¹²



More people are smoking, especially young people, but young people generally smoke less. A decline in per capita consumption can be seen, from 4161 sticks per person per year in 1995, to 4088 sticks per person in 2001. However, an increase in overall prevalence of smoking has resulted in an increase in aggregate consumption from 174 billion sticks per year in 1995 to 214 billion sticks in 2001.

¹¹ Processed from National Socio-Economic Survey 1995 and 2001. Aceh and Maluku not included in 2001

¹² Processed from National Socio-Economic Survey 1995 and 2001. Aceh and Maluku not included in 2001

1.5.4 Cigarette Consumption by Education Level. In 2001, the amount of cigarettes consumed by non-educated/primary school non-graduates is 11.0 sticks/day and in junior high school graduated and higher educated population is 11.6 sticks/day. The average number of cigarettes consumed increases at the same time with the higher level of education (Table 1.12).

Table 1.12
Average number of cigarettes consumed by smokers 10 years and older
by level of education, Indonesia 2001
(in sticks/day)¹³

Education Level	1995			2001		
	Males	Females	Average	Males	Females	Average
No-education, or <complete 1ry education	10.8	7.7	10.6	11.1	8.2	11.0
Primary school graduated	10.3	7.9	10.3	11.1	8.7	11.1
Junior high school graduated	10.8	8.9	10.7	11.2	8.2	11.2
Senior high school graduated	10.8	8.6	10.7	11.6	9.9	11.5
University graduated	11.2	10.4	11.1	11.6	12.6	11.6
Average	10.6	7.9	10.5	11.2	8.5	11.2

1.6. Exposure to Passive Smoke (Passive Smokers)

1.6.1. Prevalence of Smoking Households is identifying by the proportion of households reporting expenditure for tobacco products. The National Socio-Economic Survey 1999 indicated that 57.2 % households have expenditures for cigarettes. Thus, in 57% of households, at least one household member consumes tobacco.

1.6.2. Prevalence of Smokers who Smoke in Their Homes. Based on the result of the National Socio-Economic Survey in 2001, most (91.8 %) smokers 10 years or older stated that they smoke inside their homes with other family members present. This habit is frequently conducted in rural compared with urban areas, 93.4 % and 89.3 % respectively (Table 1.13)

Table 1.13
Percentage of smokers who usually smoke inside the house, 2001¹⁴

Area	Male	Female	Average
Urban	89.32	90.16	89.34
Rural	93.46	91.68	93.42
Urban & Rural	91.80	91.12	91.78

1.6.3. Proportion of Population Exposed to Passive Smoke.¹⁵ Based on the result of the National Socio-Economic Survey 2001, the proportion of the population

¹³ Processed from National Socio-Economic Survey 1995 and 2001. Aceh and Maluku not included in 2001

¹⁴ Central Bureau of Statistics, 2001. Health Statistics 2001

¹⁵ Formula to calculate Proportion of Population Exposed to Smoke:

exposed to passive smoke due to family members smoking at home was estimated at 48.9% of the total population, or more than 97 million people (Table 1.14).

Table 1.14
Proportion of smoke exposed population inside the house
according to age group and gender, 2001¹⁶

Age Group	Prevalence of Passive Smokers (%)			Number of Passive Smokers (in person)		
	Males	Females	Average	Males	Females	Average
0- 4	69.5	69.6	69.5	6,886,930	6,443,006	13,329,936
5- 9	70.6	70.6	70.6	7,779,456	7,121,140	14,900,596
10-14	70.7	70.4	70.6	7,614,680	7,173,466	14,788,146
15-19	51.1	67.6	59.0	5,286,944	6,493,561	11,780,505
20-24	23.4	65.6	45.6	1,913,093	5,963,214	7,876,307
25-29	9.6	65.5	38.8	796,228	5,933,837	6,730,065
30-34	4.3	64.8	35.0	332,484	5,162,942	5,495,426
35-39	2.1	67.4	35.4	158,668	5,299,348	5,458,016
40-44	2.5	68.8	34.3	166,891	4,240,738	4,407,629
45-49	3.5	67.5	32.9	189,761	3,104,704	3,294,465
50+	5.3	56.3	31.9	754,053	8,744,858	9,498,911
All age groups	31.8	66	48.9	31,879,188	65,680,814	97,560,002

1.6.4 Proportion of Children Exposed to Passive Smoke. Most of those exposed to passive smoke in their homes are children, *0-14 years*. It is estimated that 70 % of all children 0-14 years are regularly exposed to passive smoke, or more than 43 million children (Table 1.15).

1.6.5 Proportion of Women Exposed to Passive Smoke. The proportion of women exposed to passive smoke is estimated at 66.0 % of all women, or more than 65 million people (Table 1.15). A higher proportion of women who live in rural areas are exposed to passive smoke, i.e. 70.6 % (Table 1.14)

Table 1.15
Number of population exposed to cigarette smoke inside the house
according to area and gender, 2001¹⁶

Area	Males	Females
Urban	29.6	60.2
Rural	33.4	70.6
Urban & Rural	31.8	66.0

Prevalence/proportion of population exposed to smoke at home =

$$\frac{\text{Total population} - \text{household with no smokers} - \text{household with smokers not smoking at home}}{\text{Total population}}$$

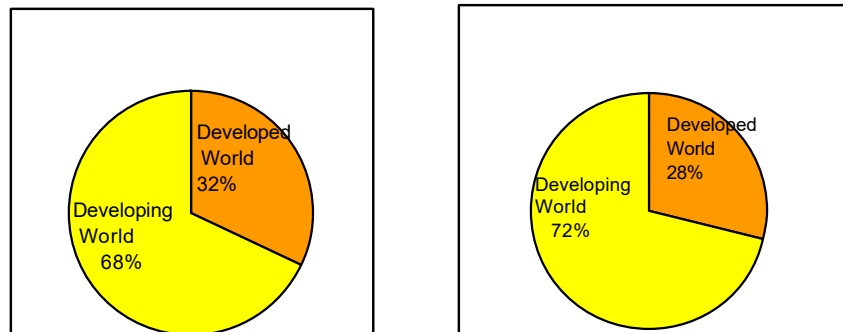
¹⁶ Pradono and Kristanti. 2002. Passive Smokers, the Forgotten Disaster. Institute of Health Research and Development, Ministry of Health

Chapter 2. The Burden of Tobacco Use

2.1. Health Risks to the Smoker

2.1.1. World cigarette consumption has increased during the 1990s because of increasing consumption in the developing world. In 1996, the developing world accounted for 68% of global cigarette consumption, and this increased to 72% in 2001.¹

Graph 2.1.
Increase in world cigarette consumption in the developing world,
from 1996 to 2001¹



2.1.2. Tobacco use is now one of the fastest growing causes of death in the world together HIV/AIDS.² Globally, tobacco caused about 8.8% of all deaths in 2000.³ This represents an increase of more than one million deaths from 1990.⁵ Tobacco consumption kills one person every 10 seconds.⁴ An estimated 4.9 million deaths are attributable to tobacco use annually, and 70% of these deaths will occur in the developing world.⁵ For Indonesia, it is estimated that tobacco use accounted for 4 to 7.9 % of the total burden of disease in 1990 (Graph 2.2).

2.1.3. In 2020, the WHO estimates that tobacco-related illnesses will become the largest single health problem, causing an estimated 8.4 million deaths annually.⁶ It is estimated that half of these deaths will occur in Asia given rapidly increasing tobacco use. Deaths in Asia will increase nearly four- fold from 1.1 million in 1990 to an estimated 4.2 million in 2020.⁷

¹ See Yurekli and Bayer, World Bank, from USDA data 1996 to 2001.

² <http://www1.worldbank.org/tobacco/pdf/indonesian.pdf>

³ Shibuya et al. 2003. WHO and the Framework Convention on Tobacco Control
<http://bmi.com/cgi/reprint/327/7407/154.pdf>

⁴ WHO 2002. World Health Report: Reducing Risks, Promoting Healthy Life. Chapter 4: Quantifying Risks.
<http://www.who.int/whr/en/>

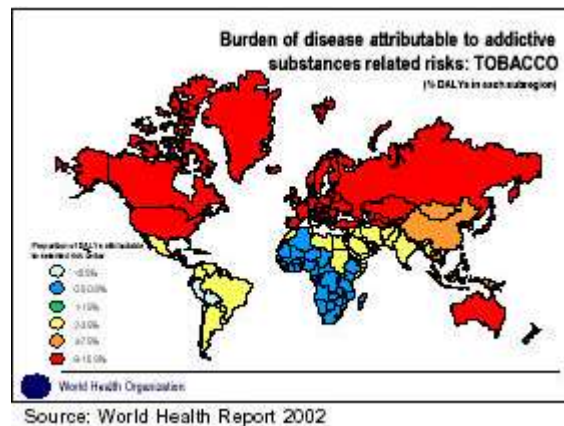
⁵ WHO 2002. The Tobacco Atlas. <http://www5.who.int/tobacco/page.cfm?sid=84>

⁶ WHO and the European Commission 2003. Tobacco and health in the developing world.
http://europa.eu.int/comm/health/ph_determinants/life_style/Tobacco/Documents/who_en.pdf

⁷ WHO Tobacco Burden of Disease. Accessed 8/2003. http://www.who.int/tobacco/health_impact/bod/en/

⁸ Murray & Lopez. Mortality by Cause for 8 regions of the world: Global Burden of Disease Study.
http://www.thelancet.com/journal/vol349/iss9061/full/llan.349.9061.original_research.8645.1

Graph 2.2.
Burden of disease attributable to tobacco use globally.³



2.1.4. The negative health impacts of tobacco use⁵⁻⁸ were first demonstrated in the 1950s.⁹ More than 70,000 scientific articles have conclusively demonstrated that tobacco use causes cancers of mouth, pharynx and larynx, cancer of esophagus, cancer of lung, cancer of pancreas, cancer of bladder, ischaemic heart disease, hypertension, myocardial degeneration, pulmonary heart disease, other heart disease, aortic aneurysm, peripheral vascular disease, arteriosclerosis, cerebral vascular disease, chronic bronchitis and emphysema, pulmonary tuberculosis, asthma, pneumonia, and other respiratory diseases.¹⁰

2.1.5. One in two long-term smokers die because of their smoking habit.⁴ More importantly, these deaths are completely preventable. A key factor in estimating the burden of disease between tobacco use and chronic disease is the duration of cigarette use. There could be a delay of 10 to 25 years between the time that someone starts to smoke and the onset of many chronic diseases such as lung or other cancers. Doubling the duration of tobacco use increases the risk of lung cancer incidence by 20 times.¹¹

2.1.6. Lung Cancer: Lung cancer has become the world's leading cause of preventable death.¹² In populations where smoking is widespread, smoking causes 90 % of lung cancers in men and 70% of lung cancers in women,³ with case fatality rates exceeding 85%.¹³ In U.S. urban areas where air pollution is a serious problem, smoking remains responsible for 90% of lung cancer cases, occupational exposure

⁸ See ASK UK <http://ash.org.uk/html/presentation/visual/bodydamage.html> dan Tobacco Control Supersite from the University of Sydney.

http://tobacco.health.usyd.edu.au/site/supersite/resources/docs/gallery_effects.htm

⁹ Doll and Hill. BMJ Sept 30, 1950. Smoking and Carcinoma of the Lung.

<http://www.who.int/docstore/bulletin/pdf/issue1/smokingand.pdf>

¹⁰ See WHO Tobacco and Health Impact. http://www.who.int/tobacco/health_impact/en/

¹¹ Stanley K. 1993 Tobacco Control. In Disease Priorities in Developing Countries. World Bank 1993.

¹² Albert and Samet. Jan 2003. The Epidemiology of Lung Cancer. Chest: 123.

http://www.chestjournal.org/cgi/content/full/123/1_suppl/21S

¹³ Based on US populations within 5 years of diagnosis. See models from http://emice.nci.nih.gov/mouse_models/organ_models/lung_models

to carcinogens in the workplace account for an additional 9%, and outdoor air pollution accounts only for an estimated 1-2% of lung cancer cases.¹² Suryanto (1989) found out that the risk to pulmonary cancer increased by 7.8 times for active smokers, compared to those who do not smoke.¹⁴

2.1.7. Chronic Obstructive Pulmonary Disease. Between 56–80% of all chronic respiratory disease is attributable to smoking,³ including chronic bronchitis and emphysema. Given that bronchitis is associated with long-term morbidity, it implies high costs to the health system over the long-term.¹¹

2.1.8. Cardiovascular Diseases (CVD). Globally, smoking accounts for 22% of all cardiovascular disease.³ Smoking is also associated with arteriosclerosis, hypertension, and cerebrovascular disease, and amputation attributable to vascular disease.⁵ Various retrospective studies in Indonesia associate smoking with increased risk of cardiovascular diseases (including stroke), and respiratory tract infection and cancer.

2.1.9. Other Cancers.¹⁵ There is sufficient evidence to conclude that tobacco smoking causes in humans cancer of the oral cavity, naso-, oro- and hypopharynx, nasal cavity and paranasal sinuses, larynx, esophagus, stomach, pancreas, liver, kidney (body and pelvis), ureter, urinary bladder, uterine cervix and bone marrow (myeloid leukaemia).¹⁶

2.1.10. Fertility and Impotence. Both women who smoke and women who are exposed to passive smoke are at an increased risk of delayed ability to conceive.¹⁷ For men, smoking increases the risk of impotence by up to 50%.¹⁸

2.2. Health Risk of Environmental Tobacco Smoke (ETS)¹⁹ - ²⁰

2.2.1. Environmental tobacco smoke (ETS) is carcinogenic to human.²¹ Tobacco smoke contains over 4000 chemicals, including 43 known carcinogens.²² There is

¹⁴ Final Residency Paper, Department of Pulmonology School of Medicine, University of Indonesia, Jakarta, 1989 (unpublished)

¹⁵ In the U.S., tobacco is accountable for 40% of bladder cancer deaths, and 30% of all cancer deaths. See Stanley K. 1993. In Disease Control Priorities in Developing Countries. World Bank 1993.

¹⁶ International Agency Research on Cancer (IARC) Monographs on the Evaluation of Carcinogenic Risks to Humans. Tobacco Smoke and Involuntary Smoking July 2002.

<http://monographs.iarc.fr/htdocs/indexes/vol83index.html>

¹⁷ Hull et al. 2000 Delayed conception and active and passive smoking. The Avon Longitudinal Study of Pregnancy and Childhood Study Team.. Fertil Steril. Oct;74(4):725-33. Abstract available

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=11020514

¹⁸ Tengs TO, Osgood ND. The link between smoking and impotence: two decades of evidence. Prev Med. 2001 Jun;32(6):447-52. Abstract available:

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=11394947

¹⁹ Environmental tobacco smoke (ETS) is also referred to as passive smoke, second-hand smoke, or involuntary smoke.

²⁰ For summary, see WHO Secondhand Smoke

http://www.who.int/tobacco/health_impact/secondhand_smoke/en/ and Tobacco Free Kids: Health Harms from Secondhand Tobacco Smoke. <http://tobaccofreekids.com/research/factsheets/pdf/0103.pdf>

no “safe” level of exposure to ETS.²³ Every independent scientific body that has comprehensively evaluated ETS has concluded that ETS is harmful to human health.²⁴

- 2.2.2 Exposure During Pregnancy.** Numerous studies have demonstrated that maternal smoking and/or maternal exposure to passive smoke during pregnancy is a major cause of low birth weight, stillbirths, and is associated with spontaneous abortion and complications during labor.²⁵ The smoking habit of a mother will cause a low fetus growth, due to the limited oxygen consumption to the baby through the placenta. The more a mother smoke, the more the possibility of a low birth weight baby. The low birth weight baby, related to the health outcome of children and babies, includes the increased “stunting” during childhood.²⁶
- 2.2.3 Children.** The use of tobacco products by household members has a multiple adverse health impacts on the health of children. There is conclusive evidence that infants and young children exposed to passive smoke have increased rates of lower respiratory tract infections, middle ear disease, chronic respiratory symptoms, asthma,²⁷ decreased lung function due to a reduced rate of lung growth; and an increased rate of sudden infant death syndrome (SIDs) (Table 2.1).
- 2.2.4. Indonesian Children Exposed to ETS.** The majority of smokers (91.8 %) smoke within their own homes in the presence of other family members. As estimated in Chapter 1, about 70% of children between the ages of 0-14 years, or more than 43 million children, are exposed to ETS in their own homes.²⁸

²¹ U.S. National Institutes of Health. 10th Report on Human Carcinogens. Dec 2002. Tobacco and Tobacco Related Exposures. <http://ehp.niehs.nih.gov/roc/tenth/profiles/s176toba.pdf>

²² US National Institutes of Health 2002. National Cancer Institute. Smoking and Tobacco Control Monograph #10: Health effects of exposure to Environmental Tobacco Smoke; <http://cancercontrol.cancer.gov/tcrb/monographs/10/>

²³ Glantz & Parmley. 2001. Even a little secondhand smoke is dangerous. Journal of the American Medical Association. July 25, 2001; 286, 4 <http://www.tobaccoscaml.ucsf.edu/pdf/9.1-Glantz&Parmely-EvenALittleIsDangerous.pdf>

²⁴ WHO 2003. Comprehensive Reports on Passive Smoking by Authoritative Scientific Bodies. http://www.who.int/tobacco/health_impact/reports/en/

²⁵ Chan-Yeung and Ward. Respiratory health effects of exposure to environmental tobacco smoke: An invited review. <http://www.blackwell-synergy.com/links/doi/10.1046/j.1440-1843.2003.00453.x/abs>

²⁶ Schmidt M, Muslimatun S, West CE, Schultink W, Gross R, and Hautvast GAJ (2002). Nutritional status and linear growth of Indonesian infants in West Java are determined more by prenatal environment than by postnatal factors. J Nutr 132(8):2202-7

²⁷ See also Rieves s. 2002. Chest 122:2, 394-6. Suffer the Children. <http://www.chestjournal.org/cgi/content/full/122/2/394>

²⁸ after being weighted/infated

Table 2.1.
Summary of conclusions from significant health agency reports on Environmental Tobacco Smoke (ETS) and child health²⁹

Independent Health Report	Lower respiratory tract infections ²	Middle ear disease	Chronic respiratory symptoms	Asthma	Lung function	Sudden infant death syndrome (SIDS)
"Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders" United States Environmental Protection Agency (1992)³⁰	ETS is causally associated with increased risk	ETS is causally associated with increased prevalence of middle ear effusion	ETS is causally associated with increased prevalence	ETS is causally associated with additional episodes and increased severity of symptoms in asthmatic children; suggestive evidence that ETS causes new cases of asthma	ETS is causally associated with small reductions	Strong evidence that maternal smoking increases the risk of SIDS. Data inadequate to assess specific role of ETS
"Health Effects of Exposure to Environmental Tobacco Smoke" California Environmental Protection Agency (1997)³¹	ETS is causally associated	ETS is causally associated	ETS is causally associated	ETS is causally associated with asthma exacerbation and induction	Suggestive evidence of causal association with ETS	ETS is causally associated
"The Health Effects of Passive Smoking" Australian National Health and Medical Research Council (1997)³²	ETS has cause-and-effect relationship	Causal link between ETS and middle ear effusion	Not reviewed	Causal relationship between ETS and asthma	Association with ETS exposure	Causal association with ETS
United Kingdom Scientific Committee on Tobacco and Health (1998)³³	ETS is a cause	Parental smoking causes acute and chronic middle ear disease	Convincing evidence that parental smoking increases risk	ETS is a cause of asthma attacks	Not reviewed	ETS has cause-and-effect association

²⁹ WHO 1999. International Consultation on Environmental Tobacco Smoke and Child Health.

NCD/TFI/ETS/99. http://www.who.int/tobacco/health_impact/youth/ets/en/

³⁰ United States Environmental Protection Agency. EPA Office of Research and Development, "Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders", EPA/600/6-90/006F, December 1992.

www.epa.gov/ncea/smoking.html ; www.epa.gov/iaq/ets.html

³¹ California Environmental Protection Agency Office of Environmental Health Hazard Assessment. Health Effects of Exposure to Environmental Tobacco Smoke. (1997) www.oehha.org/archive/tobacco_smoke.html

³² Australian National Health and Medical Research Council. The Health Effects of Passive Smoking (1997) ISBN 0-642-27270-0; www.health.gov.au/nhmrc/advice/nhmrc/foreword.htm

³³ Scientific Committee on Tobacco and Health. Department of Health, UK (1998) www.official-documents.co.uk/document/doh/tobacco/contents.htm

2.2.5. GYTS and children exposed to ETS, Jakarta GYTS.³⁴ Among school children surveyed in the Jakarta GYTS, 69.3% reported being exposed to ETS at home, and 83.5 % reported exposure to ETS in public places. Almost 90% of the GYTS adolescents surveyed in Jakarta have the opinion that smoking should be banned in public places, but only 57% are sure that other people's smoke is dangerous for health. The opinion that stated that smokers should be banned at public places, therefore, does not always reflect the knowledge on the danger of environmental tobacco smoke to other people. (Table 2.2.)

Table 2.2.
Exposure to Environmental Tobacco Smoke (ETS) according to location and opinion of school children on ETS, GYTS 1999- 2000

Study location	% Exposed to other people's smoke		% School children who have the opinion	
	At their homes	At public places	Smoking should be banned at public places	(are sure) that other people's smoke is dangerous
Jakarta 2000	69.3	83.5	88.9	57.4
Singapore 2000	35.1	65.1	--	78.1
Guangdong 1999	49.4	48.4	64.3	80.2
West Bengal 2000	59.3	69.2	84.6	87.1
Bihar 2000	28.2	34.8	66.0	62.3
Buenos Aires 2000	68.2	86.7	70.4	66.3
Santiago 2000	61.3	72.2	71.5	60.7
Lima 2000	30.9	44.4	88.2	56.0
Median: All studies	48.9	60.9	74.9	65.5
Lowest	30.4 (Lilongwe, Malawi)	30.4 (Blantyre, Malawi)	31.4 (Manipur, India)	22.8 (Manipur, India)
Highest	79.8 (Meghalay, India)	86.7 (Buenos Aires, Argentina)	91.4 (Sri Lanka)	90.8 (USA)

2.2.6. Exposure to ETS Among Adults. It has long been recognized that non-smoking spouses of smokers have an increased risk of lung cancers and other diseases associated with inhaling the carcinogens in environmental tobacco smoke (ETS).³⁵ Nonsmoking women exposed to environmental tobacco smoke in the home have an increased risk of lung cancer between 20%²¹ to 30%,³⁶ and the longer the exposure, the higher the risks.³⁷ Exposure to ETS is causally associated with coronary heart disease in adults.¹⁶

³⁴ GYTS is a surveillance system to look at the increased use of tobacco in children and adolescents throughout the world. Since 1999, this activity has been globally implemented on children aged 13-15 years in 75 locations of 43 countries, supported by WHO and CDC Atlanta. See Chapter 1 and http://www.cdc.gov/tobacco/global/GYTS/questionnaire/GYTS_samplequestionnaires.htm

³⁵ Hirayama, T. (1981). "Non-smoking wives of heavy smokers have a higher risk of lung cancer: a study from Japan." *British Medical Journal* (Clinical Research Ed.) 282(6259): 183-5. Reproduced in the Bull of the WHO <http://www.who.int/docstore/bulletin/pdf/2000/issue7/classics.pdf>

³⁶ Fontham, E. T., P. Correa, et al. (1994). "Environmental tobacco smoke and lung cancer in nonsmoking women: A multicenter case-control study." *Journal of the American Medical Association* (JAMA) 271: 1752-1759, abstract available at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=8196118&dopt=Abstract

³⁷ Hackshaw AK, Law MR, Wald NJ. The accumulated evidence on lung cancer and environmental tobacco

Taufik (2000) found out that women with smoking husbands, have a 2.79 times higher risk of lung cancer compared to women with non-smoking husbands; if the husbands smoke kretek cigarettes, the risk will increase to 3,11 times.³⁸

- 2.2.7. Exposure to ETS in Indonesian Homes.** Almost all (91.8 %) smokers aged more than 10 years stated that they conduct the habit of smoking at home when they gather with other family members. Due to the high percentage of smokers conducting their smoking habit at home, the prevalence of passive smokers³⁹ became 97,560,002 persons for all age groups, or 48.9.% of the population. Seen from their living areas, women living in rural areas have the highest prevalence of exposure to passive smoke, i.e. 70.6 %.

2.3. Nicotine Addiction

“Cigarettes are highly efficient nicotine delivery devices ... Nicotine has been shown to have effects on brain dopamine system similar to those of drugs such as heroin and cocaine”

U.K. Royal College of Physicians 2000⁴⁰

- 2.3.1. Cigarettes and other forms of tobacco are addicting and nicotine is the drug in tobacco that causes addiction.**⁴¹ Nicotine, an alkaloid poison found in nature only in tobacco, is a powerful stimulant to the brain and central nervous system. However, it can also have a depressant effect. The addictive effect of nicotine is linked to its capacity to trigger the release of dopamine – a chemical in the brain that is associated with the feelings of pleasure. However, in the long term, nicotine depresses the ability of the brain to experience pleasure.⁴² Thus, smokers need ever-greater amounts of nicotine to achieve the same level of satisfaction for their addiction. Smoking is therefore a form of self-medication: further smoking alleviates the withdrawal symptoms, which set in soon after the effects of nicotine wear off.⁴³ Research indicates that tobacco causes mental and behavioral disorders, and is officially categorized in ICD-10: F17 on mental and behavioral disorders due to the use of tobacco.⁴⁴

smoke. *BMJ* 1997; 315:980-8.

http://bmj.com/cgi/content/full/315/7114/980?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=1&fulltext=Non-smoking+wives+of+heavy+smokers+&searchid=1061618261855_1341&stored_search=&FIRSTINDEX=0&sortspec=relevance&resourcetype=1.2.3.4.10

³⁸ Final Residency Paper, Department of Pulmonology School of Medicine, University of Indonesia, Jakarta, 2000 (unpublished)

³⁹ Passive smokers are non-smokers living with active smokers. Calculation of prevalence of passive smokers : (passive smokers/total population)*100%

⁴⁰ Royal College of Physicians 2000. Nicotine Addiction

<http://www.rcplondon.ac.uk/pubs/books/nicotine/index.htm>

⁴¹ US Department of Health and Human Services. 1989. Reducing the Health Consequences of smoking: 25 years of progress. Surgeon General's Report. <http://profiles.nlm.nih.gov/NN/B/B/X/S/>

⁴² Epping-Jordan, M P et al. Dramatic decreases in brain reward function during nicotine withdrawal. *Nature* 7 May 1998, p76-79. Abstract available: http://www.nature.com/cgi-taf/DynaPage.taf?file=nature/journal/v393/n6680/abs/393076a0_fs.html

⁴³ See ASK UK. July 2001. Properties of Nicotine. www.ash.org.uk/html/factsheets/html/fact09.html

⁴⁴ WHO, ICD-10. International Statistical Classification of diseases and related health problems, 1992.

2.3.2. How Does the Body React to Nicotine? Nicotine is quickly absorbed by the body, and reaches the brain within 10-19 seconds of inhaling.⁴⁰ Nicotine causes blood pressure to rise and increase heart rate by as many as 33 beats a minute. Nicotine lowers skin temperature and reduces blood circulation in the legs and arms. Nicotine, in new smokers, brings on nausea. In fact, it is always nauseating to any smoker who gets too much of it by paralyzing breathing.⁴⁵

2.3.3. The Power of an Addiction. Once a person begins to smoke regularly it is very difficult to quit because nicotine is very addictive.⁴⁶ The power of addiction is also demonstrated by the fact that some smokers are reluctant to stop smoking even after undergoing surgery for smoking-induced diseases. One study in the U.K. demonstrated that around 40% of those who have had a laryngectomy try smoking soon afterwards, while about 50 per cent of lung cancer patients resume smoking after undergoing surgery.⁴⁷ From the GYTS,³⁴ among 20.4% of school children surveyed in Jakarta who currently smoke cigarettes, 8 of 10 students wanted to stop smoking and most had tried to stop (91%). (Table 2.3). *In this survey, Jakarta was the highest score among global sites.*⁴⁸ The distribution of “free” tobacco product samples, therefore, comes at a very high cost.

Table 2.3.
Proportion school children wanting to stop smoking and its effort
GYTS 1999-2000

Location of survey	Current smokers	
	Want to stop	Try to Stop Smoking this Year
Jakarta 2000	80.5	91.0
Singapore 2000	61.9	78.1
Guangdong 1999	62.5	62.6
West Bengal 2000	77.0	61.9
Bihar 2000	68.4	59.9
Buenos Aires 2000	47.1	52.5
Santiago 2000	45.0	59.0
Lima 2000	62.0	61.6
Median: all studies	68.4	63.1
Minimum	19.6 (Manipur, India)	8.4 (Sikkim, India)
Maximum	86.9 (Tianjin, China)	91.0 (Jakarta, Indonesia)

⁴⁵ Canadian Cancer Society: http://www.canoe.ca/HealthReference/cancer_smoking1.html

⁴⁶ See the US National Institute on Drug Abuse. Nicotine Addiction.

<http://www.drugabuse.gov/ResearchReports/Nicotine/nicotine2.html>

⁴⁷ Stoleran, IP & Jarvis, MJ. The scientific case that nicotine is addictive. Psychopharmacology 1995; 117: 2-10. Abstract available:

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=7724697&dopt=Abstract

⁴⁸ Jakarta Global Youth Tobacco Survey 2000.

http://www.cdc.gov/tobacco/global/gyts/GYTS_factsheets.htm

2.4. Carbon Monoxide and Tar

2.4.1. Carbon Monoxide (CO), which makes up about 4% of the smoke of the average cigarette, has a stronger affinity for red blood cells than does oxygen. Red blood cells are meant to distribute oxygen to the body's tissues. CO also promotes cholesterol deposits in arteries. It impairs vision and judgment, and reduces attentiveness to sounds. CO in smoke will replace the oxygen in red cells, forming carboxyhemoglobin (CoHb). On average, smokers have from 2.5% to 13.5% more CoHb in their blood than non-smokers.⁴⁵

2.4.2. Tar is the sticky particles created by burning tobacco and comprised of 4000 known chemicals. Heart and circulatory disease, lung and other cancers, emphysema and chronic bronchitis have been linked with many of these chemicals.⁴⁵

2.4.3. Cigarettes labeled as “low tar yield” are not less harmful to health compared with cigarettes labeled as “high tar yield.” Cigarette ratings for tar, nicotine and carbon monoxide are currently determined by machine testing (ISO standards) developed by the tobacco industry in 1967. These methods to rate tar, nicotine and carbon monoxide do not predict actual intake or health impact – or the behavioral changes associated with people smoking different types of cigarettes.⁴⁹ Cigarettes with “low tar yield” are those that leave a smaller tar deposit on the filter when smoked in the standard way. Most low tar cigarettes work through ‘filter ventilation’. Porous paper or tiny ventilation holes are drilled with lasers in the filter, so that when the smoker draws on the cigarette, air is sucked in to dilute the smoke. The effect of doing this with a standard smoking regime is to draw in the same quantity of smoke, but diluted by air. That means lower levels of tar, CO or nicotine is deposited on the filter and a lower yield recorded. These lower yields have become the basis for ‘light’ and ‘low’ branding, and implied claims of lower risk. Machines are not addicted to nicotine and do not modify their smoking when different products are smoked. But humans are different.⁵⁰

2.4.4. Low tar cigarettes typically also have lower levels of nicotine. Because people smoke to obtain a level of nicotine that satisfies their addiction, switching to cigarettes with “low tar” may result in people smoking and buying more cigarettes to achieve the desired level of nicotine that satisfies their addiction. Smokers who switch to those low tar and nicotine cigarettes will also modify their smoking behavior to obtain a sufficient dose of nicotine to satisfy their cravings for nicotine and they will adjust their smoking accordingly – a process known as ‘compensation.’ Smokers tend to compensate by smoking more cigarettes, or by

⁴⁹ US National Cancer Institute 2001. Monograph 13: Risks Associated with Smoking Cigarettes with Low Tar Machine-Measured Yields. <http://cancercontrol.cancer.gov/tcrb/monographs/13/index.html>

⁵⁰ See BBC 9 October, 2001. Women conned by low-tar cigarettes.
<http://news.bbc.co.uk/2/hi/health/1589088.stm>

inhaling more deeply and longer, or by covering up the ventilation holes. Thus they do not really reduce the amount of tar and nicotine they inhale.

- 2.4.5.** In fact, smokers of “low tar cigarettes” may inhale more deeply – which affects the absorption of carbon monoxide. Deep inhalation increases exposure to carbon monoxide, which greatly increases the risk of heart attack.⁵¹

2.5. Clove Cigarettes, Eugenol and Other Additives

- 2.5.1. 88% of Indonesian Smokers Prefer Kreteks** (See Chapter 5). Kretek are largely comprised of tobacco (60 to 70 %), and therefore carry all of the same health risks as other tobacco products.⁵²

- 2.5.2. Tar and Nicotine Levels in Kreteks.** Clove cigarettes have substantially higher tar and nicotine yields compared with Western cigarette brands. Clove cigarettes sold in Indonesia have between 1.7-2.5 mg/per stick of nicotine and between 28.1 – 53.2 mg/per stick of tar.⁵³ This compares to <0.05-1.4 mg/per stick of nicotine and <0.5-24.0 mg/per stick of tar in cigarettes sold in the US.⁵⁴ Lack of filter ventilation holes and lower porosity of paper wrapper might also result in higher smoke delivery for cloves.⁵⁵

- 2.5.3. Clove Cigarettes are Comprised of 30-40% Cloves.** Clove cigarettes are comprised of 30-40% cloves, of which the active ingredient is eugenol. Eugenol has been linked to three types of negative health effects: acute, chronic, and behavioral.⁵⁶

- 2.5.4. Acute Effect.** In the US, inhaling clove cigarettes has been associated with severe lung injury among people with existing pulmonary problems.⁵⁷ The major

⁵¹ Jarvis MJ, Primatesta P, Boreham R, Feyerabend C, Bryant A. Nicotine yield from machine-smoked cigarettes and nicotine intakes in smokers: evidence from a representative population survey. *Journal of the National Cancer Institute* 2001; **93**: 134-138. Abstract available:

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11208883&dopt=Abstract

⁵² Guidotti TL et al Clove cigarettes: The basis for concern regarding health effects. *West J Med* 1989; 151:220-228. Abstract available:

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=2773482&dopt=Abstract

⁵³ From Sampoerna Intelligence Reports, 2003.

⁵⁴ US Federal Trade Commission Tar, Nicotine, and Carbon Monoxide Report 2000.

<http://www.ftc.gov/reports/tobacco/1998tar&nicotinereport.pdf>

⁵⁵ Clove cigarette smoking: biochemical, physiological, and subjective effects. *Pharmacol Biochem Behav.* 2003 Feb;74(3):739-45. Abstract available:

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=12543240&dopt=Abstract

⁵⁶ Guidotti, TL Critique of available studies on the toxicology of kretek smoke and its constituents by routes of entry involving the respiratory tract. *Arch Toxicol* 1989; 63:7-12. Abstract available:

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=2662942&dopt=Abstract

⁵⁷ US MMWR; Epidemiologic Notes and Reports Illnesses Possibly Associated with Smoking Clove Cigarettes May 31, 1985 / 34(21):297-9. <http://www.cdc.gov/mmwr/preview/mmwrhtml/00000549.htm>

acute events reported were an inflammatory process occurring infrequently and unpredictably following normal use.

2.5.5. Chronic Effect. Eugenol is considered a possible human carcinogen, and it is closely related to safrole, a weak hepatic carcinogen.⁵⁶

2.5.6. Behavioral Effect. Some people perceive kreteks to be less harmful to health.⁵⁵ In fact, eugenol numbs the throat and allows for deeper inhalation. Deep inhalation increases exposure to carbon monoxide, which greatly increases the risk of heart attack.⁵¹ Behaviors associated with smoking kreteks include slower smoking and more puffs because the rods of the clove are firmly packed.

Table 2.4.
Tar and nicotine levels in clove cigarettes, 2003⁵⁸

	Brand	Nikotin (mg/piece)	Tar (mg/piece)	Eugenol (mg/piece)
1	Dji Sam Soe 12	2.37	46.6	9.61
2	Sampoerna Hijau 12	2.22	45.0	9.42
3	Panamas Kuning 12	2.29	46.2	9.45
4	GG King Size 12	2.10	53.2	12.10
5	Wismilak 12	2.10	49.4	8.56
6	Mister Slim 12 (filter)	1.70	28.1	5.10
7	Wismilak Slim 12 (filter)	1.68	42.2	8.21
8	Bentoel Sensasi Sejati 12	2.50	51.3	11.70
9	Djarum 76 12	2.50	48.5	9.70
10	Djarum Coklat 12	2.40	48.8	11.20
11	Grendel OM 12	1.73	42.74	9.12
12	Grendel MI 16	1.67	45.03	8.35
13	Djagung Prima 10	1.70	41.99	6.26
14	Retjo Pentung Sp 10	2.33	41.63	4.71
15	Suket Teki Merah 12	2.10	45.51	7.33
16	Pustaka 12	2.24	44.79	6.23
17	Sejahtera KS Kuning 12	1.99	40.65	7.57
18	Engkol 12	1.82	39.25	3.63
19	Sejahtera KS Kuning 12	1.76	38.93	4.51
20	Bokomas Universal 12	2.27	39.80	6.52
21	Panamas Ijo 12	2.15	45.60	6.63
22	Sukun Merah KS 10	2.10	52.90	12.84
23	Oepet SPS Biru Putih 10	1.70	36.51	6.50

2.5.7. Additives. A single brand of kretek can have hundreds of different additives in its “sauce.” The “sauce” makes the tobacco less “harsh,” particularly for cured tobacco leaves that are high in alcohol content. It also maintains the flavor of a particular brand of cigarettes over time given that that quality of the tobacco leaves can vary by geography and harvest. Hundred of other chemicals are added to tobacco during manufacturing to make smoke easier to inhale and allow for less tobacco to be used in each cigarette. Selected additives include ammonia, which may increase nicotine absorption, flavorings to enhance taste, menthol, cocoa to dilute airways.⁵⁹ While such additives may be safe when ingested, the health effects of inhaling them are not known.

⁵⁸ Sumber: Sampoerna. 2003. Scientific Regulatory Intelligence dalam Rahman. 2003. Kebijakan Pengembangan Industri Olahan Tembakau: Industri dan Perdagangan

⁵⁹ WHO 2000. Advancing Knowledge on Regulating Tobacco Products.
<http://www.who.int/tobacco/media/en/OsloMonograph.pdf>

2.6. Burden of Disease

2.6.1. Estimated number of tobacco-related deaths. In the National Household Health Survey 2001, which used verbal autopsy method to assess the cause of death; 3,441 households were interviewed and 3320 underlying causes of deaths based on ICD X were established. About 9.24% of deaths could be attributable to smoking. The main causes of tobacco attributable mortality in 2001 were Cardiovascular Diseases (Ischaemic Heart Disease, Stroke) and Respiratory Diseases (COPD, Pneumonia) (Table 2.5).

Table 2.5.
Estimated number of tobacco-related deaths, verbal autopsy 35+ population,
National Health Survey (mortality study) 2001

Diseases related to tobacco use	ICD-X Code	2001 verbal autopsy		Estimated # of deaths attributable to tobacco use	
		Total # deaths	% of total	% of diseases attributable to tobacco use ⁶⁰	# attributable to tobacco use
A. Neoplasms					
Mouth, oropharynx cancers	C 00-14	25	0.75	0.70	18
Stomach cancer	C 16	4	0.12	0.25	1
Liver cancer	C 22	23	0.69	0.10	2
Trachea, bronchus, lung cancers	C 33-34	13	0.39	0.90	12
Larynx cancer	C 32	2	0.06	0.15	--
Cervix uteri cancer	C 53	12	0.36	0.30	4
Ovary cancer	C 56	2	0.06	0.10	--
Bladder cancer	C 67	2	0.06	0.10	--
Myeloid & Monocytic Leucaemia	C 92-93	1	0.03	0.15	--
B. Cardiovascular Diseases					
Ischaemic Heart Disease	I 20-25	158	4.76	0.35	55
Hypertension	I 10	7	0.21	0.20	1
Stroke	I 60-69	169	5.09	0.40	68
C. Respiratory Diseases					
COPD	J 44-47	166	5.0	0.70	116
Pneumonia	J 12-18	136	4.10	0.10	14
Bronchitis, Emphysema	J 40-43	23	0.69	0.70	16
D. Others.					
Burns	T 20-32	3	0.09	0.05	--
Reported number of deaths	--	746	22.47	--	307 (9.25%)
Total		3320	100		

2.6.2. Relative risk

Table 2.6. shows the Relative Risk of mortality of smokers aged 35 years and above due to smoking attributable diseases; based on the Mortality Study of the National Health Survey 2001. The relative risks were high for the following diseases: trachea, bronchus and lung cancers (RR = 8.17), Stomach cancer (RR = 4.45), Hypertension (RR = 3.71),

⁶⁰ Using international studies, S. Kosen, National Institute of Health Research and Development, MoH

Burns (RR = 2.97), Liver cancer (RR = 2.78), COPD (RR= 2.08) and Ischaemic Heart Disease (RR = 1.56).

Table 2.6.
Relative risk of mortality for smokers aged 35 years and above of smoking attributable diseases, National Health Survey (mortality study) 2001

Disease	Code of ICD X	Relative Risk (between smokers and non-smokers)
A. Neoplasms		
Mouth and oropharynx cancers	C 00-14	1.37
Stomach cancer	C 16	4.45
Liver cancer	C 22	2.78
Trachea, bronchus and lung cancers	C 33-34	8.17
B. Cardiovascular Diseases		
Ischaemic Heart Disease	I 20-25	1.56
Hypertension	I 10	3.71
C. Respiratory Diseases		
COPD	J 44-47	2.08
D. Others.		
Burns	T 20-32	2.97

Source: National Health Survey (Mortality Study) 2001

2.6.3. Simulation

Kosen et al 2004⁶¹ used a simulation to estimate the Global Burden of Disease (GBD) for tobacco-attributable deaths. The research team employed projections of Indonesian population census data (2000), incidence rates for 31 conditions related to tobacco use based on international studies, and population attributable risk from US based studies as described in Peto et al 1992.⁶² Case fatality per condition is based on international studies and various sources of clinical data from major medical centers in Indonesia where available. All other standard assumptions for the GBD methodology are employed.¹ Using these assumptions, Kosen et al arrived at an estimate of 5,160,075 tobacco-attributable illness (2,951,239 males and 2,208,839 females); and 427,948 deaths (262,122 males and 165,826 females). Kosen et al arrived at a total loss of 11,479,756 DALYs (*Disability Adjusted Life Years*/productive years); which consists of 7,173,181 DALYs lost on males and 4,306,574 DALYs lost on females. They concluded that tobacco attributable deaths were accountable for about 22.56% of total deaths.

In interpreting this simulation, it is important to consider the differences in tobacco epidemic in Indonesia compared with US and western countries given that the simulation relies on data for incidence and population attributable risks from other countries. When done without consideration of other illnesses, the results may overestimate tobacco-attributable disease burden.

⁶¹ National Institute of Health Research and Development, published in the Empirical Basis for Tobacco Control, Ministry of Health, RI, December 2003.

⁶² Peto et al. 1992. Mortality from tobacco in developed countries: indirect estimation from national vital statistics. *Lancet* 339: 1268-1278.

2.7. Burden of Tobacco Use at the Household Level⁶³

2.7.1. Financial Burden of Tobacco. Data from the National Socio-Economic Survey (2001) indicated that the average per capita cigarette consumption per day is 11.2 sticks or 336 sticks per month. If the average price of one stick cigarette is Rp. 400, the funds needed to purchase tobacco/cigarettes in 1 month is Rp. 134,400,- or about 20 days of Regional Minimum Wage in DKI Jakarta, as large as RP 6,500 per day. In macro, the expenses to purchase tobacco/cigarettes by 31.5% of active smokers (64,973,347 persons) in Indonesia in one month is Rp. 8,732,417,836,800 (around 8.73 trillion rupiah).

2.7.2. Health and safety of tobacco farmers and cigarette industry employees. Nicotine inhaled when smoking or chewing tobacco, is also rapidly absorbed through the skin when harvesting or working with tobacco leaves, and causes *Green Tobacco Sickness (GTS)*. GTS is reported to occur on 1-10% of the tobacco employees in America. Young employees have higher risk to GTS, meaning that the prevalence in developing countries is also higher; due to the vast amount of under-aged employees in tobacco harvesting and processing.⁶⁴ Research in South Brazil by Christian Aid, indicated that tobacco farmers suffer from diseases related to exposure to pesticides, including depression, anxiety, neurology function disorders, muscular pain and tremor such in Parkinson disease.⁶⁵

Suriani's survey (1996) on 80 tobacco farmers in Temanggung, Central Java found out that the rate of *Green Tobacco Sickness (GTS)* incidence is 63,7%. Common complaints are dizziness, headache, and fatigue. The examination result indicated that a meaningful difference on the increased blood pressure, increased pulse rate, breathing frequency and urine nicotine level on farmers with GTS and those who are not affected by GTS. The risk factors influencing GTS are work experience, location of leaves to be plucked, and utilization of safety equipment. Tobacco leave pluckers who have been working for a long time, middle located tobacco leave pluckers, and those wearing long sleeves, only a few are affected by GTS compared to tobacco leave pluckers who have just started working, upper middle located tobacco leave pluckers and not wearing long sleeves.⁶⁶

2.8. Burden of Tobacco Related Illnesses at the Individual Level

⁶³ Lam TH, Leung GM, Ho LM. The effects of environmental tobacco smoke on health services utilization in the first eighteen months of life. *Pediatrics*. 2001 Jun;107(6):E91.

<http://pediatrics.aappublications.org/cgi/content/full/107/6/e91>

⁶⁴ McBride JS, Altman DG, Klein M, White W. Green Tobacco Sickness. *Tobacco Control* 1998; 7:294-8.

⁶⁵ Christian Aid. 2002. Hooked on tobacco. Report by Christian Aid/DESER on British American Tobacco subsidiary, Souza Cruz.

⁶⁶ Suriani Suprpto. Incidence and risk factor of green tobacco sickness (GTS) on tobacco leaves plucking farmers at Banjarsari village, Parakan sub-district, Temanggung district, Central Java. Thesis Health and Specialty Occupational Health Medical Health Workers' Health. Post Graduate Program University of Indonesia. 1996.

- 2.8.1. Tobacco expenses are relative against other goods and services.** The average proportion of expenses for purchase of cigarettes/tobacco against household income in 2001, is around 9,1% (lowest income group) and 7,47% (highest income group), a large increase from 1995 (6,11% for lowest income group and 4,99% for highest income group).⁶⁷ If the expenses for tobacco is used for other more useful family needs, such as high nutrition food (egg, meat) or children's education need, will of course provide a higher value for the welfare of the family. The Nutrition and Health Survey conducted by Helen K  ller International/Indonesia and National Institute of Health Research and Development, Ministry of Health indicated that the decrease of high nutrition food consumption, such as egg, milk and meat, while expenses for tobacco does not decrease.⁶⁸
- 2.8.2. Individual Health costs because of tobacco use.** Average data on length of stay in hospital and inpatient costs caused by smoking for 2002 and 2003 was collected from Persahabatan General Hospital for a selection of patient records per condition. Table 2.7. shows the average length of inpatient stay related to smoking for one episode of disease and the average total health care costs (for nursing, inpatient costs, lab and other supporting diagnostics); range of health care cost per patient selected, and sample size. Average length of inpatient stay caused by smoking ranged from 2 days for cataract and 21 days for mouth and throat cancer. The average total health care costs per episode ranged from Rp. 221,000 to 2,673,000.
- 2.8.3. Effect on the Environment.** At present many tobacco cultivation is related to forest destruction, because wood is used as fuel to process tobacco leaves. This is a global issue, because it is found in 5 continents and estimated to contribute in almost 5% of forest destruction.⁶⁹ Bellagio statement on tobacco and sustainable development, summarized that in developing countries, "tobacco is a main challenge, not only for health, but also for environmental sustainability."⁷⁰

⁶⁷ National Socio-Economic Survey (SUSENAS) 1995 and 2001.

⁶⁸ Monitoring the Economic Crisis: Impact and Transition, 1998-2000. Paper presented at NSS Seminar, NIHRD, October 2000 (unpublished).

⁶⁹ Geist Helmut J. Global assessment of deforestation related to tobacco farming. *Tob Control* 1999;8:1828 (Spring)

⁷⁰ Bellagio Statement on Tobacco and Sustainable Development, Bellagio, Italy, June 1995. URL: <http://www5.who.int/tobacco/page.cfm?tid=48>

Table 2.7.
Average length of inpatient stay, average health care costs, range of patient outpatient costs paid by individual patients, and the number of patient records examined, Rumah Sakit Umum Pusat “Persahabatan”, Jakarta 2002-2003

Disease	Aver length of inpatient stay	Aver total health care costs (RP)	Range of total health care costs (RP)	Number of patient records sampled
A. Neoplasms				
Mouth and oropharynx cancers	21	2,673,000	1,113,500-6,450,000	6
Stomach cancer	3	1,052,000	820,000-1,284,000	7
Kidney cancer	9	1,919,800	927,000-2,950,000	6
Liver cancer	17	628,000	450,000-950,000	4
Pancreas cancer	16	1,964,000	1,220,000-4,800,000	7
Trachea, bronchus and lung cancers	11	1,103,000	450,000-2,200,000	7
Larynx cancer	9	764,000	590,000-1,350,000	5
Cervix uteri cancer	10	1,708,000	1,250,000-2,550,000	5
Bladder cancer	5	917,250	541,900-2,200,000	5
B. Cardiovascular Diseases				
Ischaemic Heart Disease	6	1,072,000	765,000-1,350,000	6
Hypertension	6	748,300	327,000-1,250,000	6
Stroke	7	856,000	525,900-1,612,000	6
Aortic Aneurysm	7	1,454,000	---	1
C. Respiratory Diseases				
COPD	9	1,128,000	830,000-2,240,000	7
Pneumonia	8	1,109,000	690,000-1,350,000	6
D. Others				
Burns	6	731,000	580,000-1,300,000	5
Cataract	2	1,186,000	925,000-2,100,000	6
Menstrual Disorder	3	328,600	215,000-1,050,000	6
Respiratory Distress Syndrome	4	221,000	121,000-580,000	5
Low Birth Weight	3	329,900	122,000-540,000	5
Birth Asphyxia	4	372,600	95,000-640,000	5

ⁱ DALYs (*Disability Adjusted Life Years*) provide a composite measure of disease burden that combines both mortality (years of life lost (YLL)) and morbidity (years lived with disability (YLD)). DALYs can be used as the basis for assessing effectiveness. The general formula for years of life lost (YLL) is from WHO 1996:

$$YLL = \frac{KCe^{ra}}{(r + \beta)^2} \left[e^{(r+\beta)(L+a)} [-(r + \beta)(L + a) - 1] - e^{-(r+\beta)a} [-(r + \beta)a - 1] \right] + \frac{1-K}{r} (1 - e^{-rL})$$

where r is the discount rate, β is the parameter from the age weighting function, K is the age-weighting modulation factor, C is a constant, a is the age at death, L is life expectancy at age a . Life expectancy standards at birth are based 82.5 years for females, and 80 years for males, and values at different ages have been estimated exponentially. Previous analyses conducted for the WHO Global Burden of Disease (GBD) study applied a discount rate of 3%, age weighting modulation factor of 1, $C=0.1658$, and $\beta = 0.04$. The second component of the DALYs estimation, Years Lived with Disability (YLD), represents time lived in health states that are valued at less than perfect health, with disability weights for each health state. The disability weights were developed via a person trade-off method whereby a group of people estimated the magnitude of six classes of disability on a scale of 0 to 1. The disability weights range from one (perfect health) to zero (dead or a similar state). The formula for the YLD is the same as [5], but the equation is multiplied by D , the disability weight. For YLD, a is the onset of disability, and L is the duration of disability. For more details, see WHO 1996. *Global Burden of Disease*.

Chapter 3. Tobacco and Clove Farming

3.1 Tobacco Leaf Production

3.1.1 Production. Four countries produce almost 2/3 of the world's tobacco leaf supply. China, Brazil, India and the United States of America produce more than 4 million tons of tobacco leaves each year, or approximately 64% of the world's production. Indonesia contributes 144,700 tons of tobacco leaves, or 2.3%, to the world's supply. (Table 3.1)

Table 3.1
Ten largest countries producing tobacco leaves 2002¹

No	Country	Production	
		In tons	%
1	China	2,409,215	38.0
2	Brazil	654,250	10.3
3	India	575,000	9.1
4	USA	401,890	6.3
5	Zimbabwe	172,947	2.7
6	Turkey	145,000	2.3
7	Indonesia	144,700	2.3
8	Greece	135,000	2.1
9	Italy	130,400	2.1
10	Pakistan	85,100	1.3
	Others	1,487,118	24.0
	World	6,340,620	100.0

3.1.2 Production Trends. The total production of tobacco in Indonesia fluctuated between 1990 and 1996, and stabilized between 1996 and 2002 based on FAO data. In 2002, 144.7 thousand tons of tobacco were produced based on FAO figures and 177.7 thousand tons based on Ministry of Agriculture reports (Table 3.2).

¹ FAO STAT Agricultural database <http://apps.fao.org/page/collections?subset=agriculture>

Table 3.2
Tobacco production, 1990-2002 (FAO), & 1996-2002 (Ministry of Agriculture)

Year	Total Production (ton) ²	Total Production (ton) ³
1990	156,432	--
1991	140,283	--
1992	111,655	--
1993	121,370	--
1994	130,134	--
1995	140,169	--
1996	158,000	158,433
1997	136,746	173,971
1998	137,564	82,850
1999	135,384	117,085
2000	135,578	192,438
2001	134,379	195,137
2002	144,700	177,667

3.1.3 Tobacco Production by Province. Almost all (96%) of tobacco production in Indonesia comes from three provinces: East Java (56%), Central Java (23 %) and West Nusa Tenggara (17 %). Other provinces with minor tobacco production include DI Yogyakarta, North Sumatera, West Java, and Bali (Table 3.3)

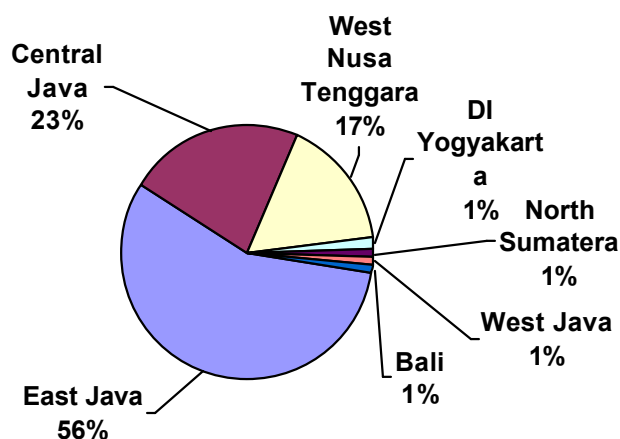
Table 3.3
Tobacco production according to province, Indonesia 2001³

Province	Production	Percentage
East Java	101,091	56.2
Central Java	40,520	22.5
West Nusa Tenggara	30,424	16.9
DI Yogyakarta	2,151	1.2
North Sumatera	1,936	1.1
West Java	1,890	1.1
Bali	1,777	1.0
Total	179,789	100.0

² FAO STAT Agricultural database <http://apps.fao.org/page/collections?subset=agriculture>

³ Processed from the Directorate General of Farming Development, Ministry of Agriculture, 2002.
Tobacco Development in Indonesia

Graph 3.1.
Tobacco production by province, 2001



3.2 Land Devoted to Tobacco Cultivation

3.2.1. Proportion of arable land devoted to tobacco cultivation. Less than 1% of arable land is dedicated to tobacco cultivation. It is estimated that 0.82% of total arable land and 0.37% of total agricultural land (2000) was used to grow tobacco. The proportion of arable and agricultural land devoted to tobacco cultivation has generally declined since the early 1990s. (Table 3.4).

Table 3.4
Percentage of one season agriculture terrain for tobacco, 1990-2000⁴

Year	Land devoted to tobacco as a % of Total Arable Land ⁵	Land devoted to tobacco as % of Total Agricultural Land ¹
1990	1.16	0.52
1991	1.19	0.52
1992	0.92	0.40
1993	0.93	0.40
1994	1.06	0.43
1995	1.25	0.51
1996	1.24	0.53
1997	1.20	0.52
1998	1.18	0.52
1999	0.85	0.38
2000	0.82	0.37
2001	0.80	--

⁴ FAO STAT Agricultural database. <http://apps.fao.org/page/collections?subset=agriculture>

⁵ Arable land is a one season agriculture land.

3.2.2. Arable Land Devoted to Tobacco, by Type of Leaf. Tobacco can be grouped into two groups: *Voor-Oogst* and *Na-Oogst*. *Voor Oogst* is usually planted in the rainy season and harvested in the dry season, and the *Na-Oogst* is planted in the dry season and harvested in the rainy season. The *Voor-Oogst* tobacco group includes different types, such as Virginia tobacco, People (Rakyat) tobacco (sliced) and Lumajang tobacco. Observations during 1996-2001 indicated that around 90-95 % of the total tobacco terrain is used to grow tobacco of the *Voor Oogst* group.

Table 3.5
Extent of tobacco terrain according to tobacco group, 1996-2001⁶

Year	Arable Land (hectares)	Tobacco group as a % of arable land devoted to tobacco		
		Voor-Oogst ^a (%)	Na Oogst (%)	Total (%)
1996	222,948	94.1	5.9	100
1997	223,405	94.3	5.7	100
1998	133,090	89.1	10.9	100
1999	159,038	91.6	8.4	100
2000	221,963	92.4	7.6	100
2001	231,770	93.2	6.8	100

3.2.3. Arable Land Devoted to People's Tobacco (Voor Oogst group). In 2001, 75% of land devoted to tobacco (173.7 thousand hectares) was planted with People's tobacco. This type is mostly grown in East Java and Central Java, over 101,000 and 62,000 hectares, respectively. According to the Directorate General of Plantations, Department of Agriculture 2002,⁷ 30% of People's tobacco is used as raw material for kretek cigarettes. From the various types of People tobacco, the mostly commonly planted are Madura and Temanggung types.

3.2.4. Arable Land Devoted to Virginia Tobacco (Voor Oogst group). After People's tobacco, the type most commonly planted is Virginia tobacco. In 2001, around 18 % (42.1 thousand ha) of the total arable land devoted to tobacco is used to grow Virginia tobacco (Table 3.6). It is mostly grown in East Java and West Nusa Tenggara. According to the Directorate General of Plantation Production Development, Department of Agriculture 2002⁷, 70% Virginia tobacco is used as raw material for white cigarettes.

3.2.5. Land Devoted to Na-Oogst Tobacco. The land devoted to planting the Na-Oogst group tobacco in the dry season is around 16 thousand hectares, or less than 7% of arable land devoted to tobacco. This group of tobacco consists of several types, including Deli, Vorstenlanden and Besuki-NO. Besuki NO tobacco type dominates the Na-Oogst tobacco (Table 3.6).

⁶ Directorate General of Farming Development, Ministry of Agriculture, 2002. Note: (Lmj is part of V-O).

⁷ Directorate General of Farming Development, Ministry of Agriculture, 2002. *Tobacco Development in Indonesia*. Unpublished paper

Table 3.6
Land devoted to tobacco by province and type of tobacco, 2000-2001⁸

No.	Province and Type of Tobacco	Land devoted to tobacco			
		(ha)		(%)	
		2000	2001	2000	2001
I.	Voor-Oogst	204,984	216,065	92.4	93.2
A.	Virginia	48,742	42,120	22.0	18.2
	East Java	23,673	22,397	10.7	9.7
	West Nusa Tenggara	21,963	18,015	9.9	7.8
	Bali	1,720	965	0.8	0.4
	Central Java	1,014	286	0.5	0.1
	North Sumatera	366	451	0.2	0.2
	DI Yogyakarta	6.0	6.0	0	0
B.	People	155,852	173,695	70.2	74.9
	Jawa Timur	95,674	101,095	43.1	43.6
	Jawa Tengah	52,673	61,925	23.7	26.7
	Jawa Barat	3,150	3,150	1.4	1.4
	NTB	2,309	3,906	1.0	1.7
	DI Yogyakarta	1,835	3,365	0.8	1.5
	Bali	211	254	0.1	0.1
C.	Lumajang (East Java)	390	250	0.2	0.1
II.	Na Oogst	16,979	15,705	7.6	6.8
A.	Deli (N Sumatera)	2,837	2,923	1.3	1.3
B.	Vorstenlanden (Ctrl Java)	960	975	0.4	0.4
C.	Besuki-NO (East Java)	13,182	11,807	5.9	5.1
	Total	221,963	231,770	100	100

3.3. Tobacco Farming Employment

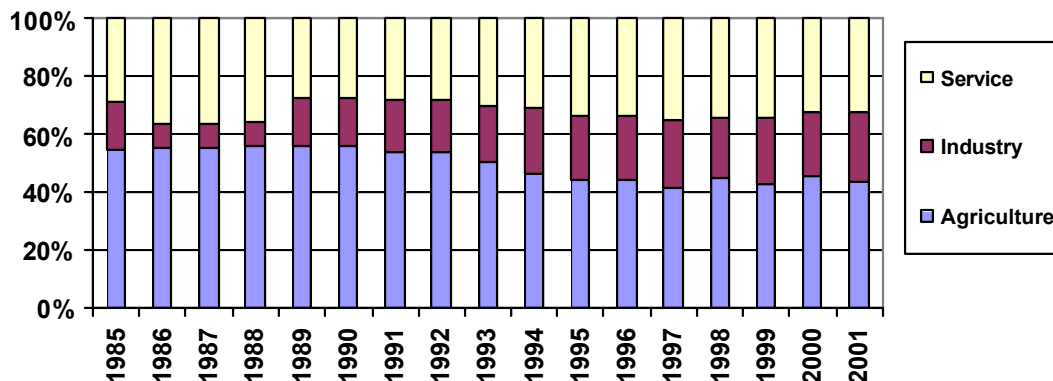
3.3.1. Employment in the Agricultural Sector. Most people formally employed still work in the agriculture sector. In 2001, the total formal workforce across all sectors was 90.8 million people, with 43.8 % working in the agricultural sector, 32.6 % in the service sector, and 23.6 % in the industry sector (Table 3.7). During 1985 to 2001, the proportion of people working in the agriculture field decreased by 11%, from 54.7% to 43.8% of total formal employment. On the other hand, an increase in the proportion of people working in the industrial sector (from 16.6% to 23.6%), and in the service sector (from 28.7% to 32.6%) can be seen over this 16 year period (Table 3.10), indicating a gradual shift of employment from agriculture to the industry and service sectors (Graph 3.2).

⁸ Directorate of Production, Directorate General of Production Development, Ministry of Agriculture. 2002.

Table 3.7
Proportion of total workforce employed in agriculture, industry, and service sectors, 1985-2001⁹

Year	Agriculture		Industry		Service		Total	
	('000) ¹	%	('000) ²	%	('000) ³	%	('000)	%
1985*)	34,174.1	54.7	10,344.8	16.6	17,938.3	28.7	62,457.1	100.0
1986	37,644.5	55.1	5,606.0	8.2	24,956.5	36.5	68,338.2	100.0
1987	38,722.1	55.0	5,818.5	8.3	25,859.0	36.7	70,402.4	100.0
1988	40,557.8	55.9	5,996.7	8.3	25,958.0	35.8	72,518.1	100.0
1989	41,284.2	56.2	11,929.8	16.2	20,210.8	27.5	73,424.9	100.0
1990**)	42,378.3	55.9	12,728.2	16.8	20,744.1	27.3	75,850.6	100.0
1991	41,205.8	53.9	13,591.6	17.8	21,625.8	28.3	76,423.2	100.0
1992	42,153.2	53.7	14,031.3	17.9	22,333.8	28.4	78,518.4	100.0
1993	40,071.9	50.6	15,350.9	19.4	23,777.8	30.0	79,200.5	100.0
1994	37,857.5	46.1	18,699.4	22.8	25,481.2	31.1	82,038.1	100.0
1995*)	35,233.3	44.0	18,212.7	22.7	26,664.0	33.3	80,110.1	100.0
1996	37,720.3	44.0	19,450.4	22.7	28,531.1	33.3	85,701.8	100.0
1997	35,848.6	41.2	20,682.5	23.8	30,518.6	35.1	87,049.8	100.0
1998	39,414.8	45.0	18,431.5	21.0	29,826.2	34.0	87,672.4	100.0
1999	38,378.1	43.2	20,051.2	22.6	30,387.5	34.2	88,816.9	100.0
2000	40,676.7	45.3	20,215.4	22.5	28,945.6	32.2	89,837.7	100.0
2001	39,743.9	43.8	21,463.1	23.6	29,600.4	32.6	90,807.4	100.0

Graph 3.2.
Proportion of formal employment provided by service, industry, and agricultural sectors, 1985 - 2001



3.3.2. Number of farmers involved in tobacco farming. According to the Director General of Horticulture, Ministry of Agriculture, the number of tobacco farmers ranged from 600,000 to over 900,000 between 1996 and 2002. Based on these estimates, the proportion of tobacco farmers ranged from 1,0 to 2,5% of the total agricultural workforce or less than 1% of the total workforce (Table 3.8)

⁹ *) Central Bureau of Statistics . 1987 and 1996. *Inter Population Survey 1985 and 1995*. Central Bureau of Statistics 1986-2002. *Workforce Situation* **) Central Bureau of Statistics. 1992 . Result of Indonesian Population Census 1990; 1) Agriculture, Forestry, Hunting and Fishery; 2) Mining and Digging; Processing Industry; Electric, Gas and Water, Construction; Transportation, Storage and Communication. 3) Whole and retail sales, Restaurant and Hotel; Finance, Insurance, Housing, Business Service; Social community, Social and Individual Services; Others

Table 3.8
Tobacco farmers as a proportion of the total agricultural labor force, 1996-2001¹⁰

Year	Number of tobacco farmers	Tobacco farmers as a % of the total agricultural labor force
1996	668,844	1.8%
1997	893,620	2.5%
1998	400,215	1.0%
1999	636,152	1.7%
2000	665,292	1.5%
2001	913,208	2.3%
2002	925,912	---

3.3.3. Employment provided by tobacco farming. Tobacco farming, however, is not full-time work, and farmers do not rely solely on tobacco to make their living. To determine the amount of full time employment that tobacco farming provides, the number of full-time equivalent (FTE) for tobacco farming was estimated using the number of person work-days needed to plant one hectare of tobacco.^{11†}

The utilization of tobacco manpower in Temanggung per hectare is around 254 person work-days. In the Mole and Muntilan tobacco farming enterprise 230 person work-days and 411 person work-days are utilized respectively.¹² Assuming that the tobacco farming needs 4 months per planting season, we estimate that 2.5 full time employees are required per hectare.¹³ So, the estimation of the needed manpower in tobacco farming enterprise for a tobacco terrain of 175,000 hectares in the year 2002 is 444,500 full-time equivalent workers, or just less than ½ million full time equivalents. Applying this to the amount of land used for tobacco cultivation during 1996-2001 the number of full time employment provided by tobacco decreased by 21%, from 564.3 thousand FTE to 444.5 thousand FTE.

¹⁰ Directorate General for Development of Farming Production, Ministry of Agriculture, Jakarta, 2003.

¹¹ World Bank. Tobacco Control Tool kits. <http://www1.worldbank.org/tobacco/toolkit.asp>

*)1. Calculate the total of manpower used for tobacco production: For example in 1990: Total manpower used = Total manpower time needed for 1 hectare tobacco farm X land used for tobacco farming = 2,54 X 235,866 = 59,909,964 working man days 2. Adjust the total time of manpower into the full time job: Total full-time manpower = Total time used by manpower ÷ Total time used by full time worker = 59,909,964 working man days X 100 days (4 months X 25 days) = 599,100 † Using Indonesian data.

¹² Research of Mukani, et al (1991b) and (1991a) in Yulaikah and Mukani 1994

¹³ 4 months x 25 days/month = 100 days/planting season), 254 person work-days is equal to 254/100 = 2.5

Table 3.9
Number of Full Time Employment (FTE) provided by tobacco, 1990-2002¹⁴

Year	Tobacco Terrain	Tobacco Farmers FTE ¹⁾	% of FTE Tobacco Farmers against agriculture workers	% FTE Tobacco Farmers against total workers
1990	235,866	599,100	1.41	0.79
1991	214,838	545,689	1.32	0.71
1992	166,847	423,791	1.01	0.54
1993	167,932	426,547	1.06	0.54
1994	182,293	463,024	1.22	0.56
1995	216,148	549,016	1.56	0.69
1996	222,164	564,297	1.50	0.66
1997	219,262	556,925	1.55	0.64
1998	221,500	562,610	1.43	0.64
1999	167,271	424,868	1.11	0.48
2000	168,688	428,468	1.05	0.48
2001	165,012	419,130	1.05	0.46
2002	175,000	444,500	n.a	n.a

From the figures over time, changes in agricultural employment are not rapid. Evidence from industrialized countries has demonstrated that reduced tobacco consumption resulted in a gradual decline in the number of people involved in tobacco farming over generations. Declines in tobacco consumption in industrialized countries demonstrated that the change is so gradual that it creates few transitional problems. Given that any change would be gradual, the effect on tobacco farming is not immediate. In the US, tobacco farmers were not put out of work by decreasing smoking prevalence, but rather the children of tobacco farmers were less likely to go into tobacco farming than were their parents.¹⁵ In Indonesia, such a decline generally follows the ongoing transition from agricultural to an increasing proportion of the formal workforce in industry and services sectors.

3.4. Tobacco Prices

3.4.1. Trends in Tobacco Prices. The real price of tobacco leaves increased nearly three-fold in the late 1990s, from Rp.1.016/kg in 1996 to Rp. 2.830/kg in 2000 (Table 3.10).¹⁶ Tobacco prices vary depending on the type and quality of leaves; whereby the quality of tobacco is determined by its final use. The standard to determine the 'grade' varies greatly, depending on the use of the tobacco, its type and its quality, thus the farmers often face problems in determining the grade. The

¹⁴ <http://www.fao.org/waicent/faostat/agricult/landuse-e.htm>

¹⁵ Warner 1998. The economics of tobacco: myths and realities. Tobacco control. www.health.usyd.edu.au/tob21c/resources/M12-1.doc

¹⁶ Price at the level of tobacco producer (tobacco farmer) 1993 =100

result is that the determination of tobacco price is very much determined during the sales transaction where the farmers are often in a weak bargaining position.¹⁷

Table 3.10
Average price of dried tobacco leaves 1996-2000^{18A}

	Average Price of Tobacco Leaves (Rp/Kg)				
	1996	1997	1998	1999	2000
Nominal price	4,053	4,096	4,295	7,152	12,990
Real price ^b	1,016	2,409	1,441	1,744	2,830

3.4.2. Variation of Tobacco Price According to Type In the year 2002, the price of People's tobacco in 5 provinces was around Rp 6.000,- to Rp 45.000,- per kg. The price of Virginia tobacco in 3 provinces varied between Rp 6.000 - Rp 16.000,- /kg depending on its quality. While the price of Besuki NO tobacco available in East Java was Rp 14.000/kg (Table 3.11).

Table 3.11
Tobacco price according to type of tobacco and province, 2002¹⁹

No.	Province	Tobacco Price (Rp/kg)		
		People	Virginia	Besuki NO
1	East Java	10.000 (average)		
		30.000 (good)		
2	Central Java	14.000-50.000	7000 ^{a)}	
3	Yogyakarta	25.000 (average)		
		45.000 (good)		
4	East Java	6.000-10.000	6000 ^{a)}	14.000 ^{a)}
5	Bali	9.000-10.000	9.000-12.000	
6	West Nusa Tenggara	6.000-9.000	8.000-16.000	

3.4.3. Tobacco Price Based on Quality. Na Oogst Besuki tobacco quality Dek/Omblat is a type of tobacco used for kretek cigarettes, cigars and chew tobacco. The price of this type of tobacco in 1997/1998 was Rp. 7,758.50 / kg for first class and Rp. 5,447.50 / kg for second class, higher than the filter quality Besuki NO tobacco used for white cigarettes. The price of filter quality tobacco in the same period was Rp. 4,126.90 for good quality and Rp. 2,806.30 for average quality (Table 3.12).

¹⁷ Directorate General of Farming Production Development, Ministry of Agriculture, Jakarta, 2002.
Monitoring and Supervision Report on the Implementation of Development of Tobacco Agribusiness, Central Industrial Zone of the Farming Community, Fiscal Year 2002

¹⁸ a) represented by average price at East Java province; b) Big Market Price Index of the agriculture sector 1993=100. Source: Price: Price Statistics of the Producers at the Agriculture Sector in Indonesia 1996-2000, 2001; Price Index: Central Bureau of Statistics 2003. Brief Bulletin January 2003

¹⁹ Source: Ministry of Agriculture; Note: ^{a)} average

Table 3.12
Real price of Besuki No Tobacco according to planting season
1993/1994 - 1997/1998²⁰

Quality	Real Tobacco Price (Rp/Kg)				
	1993/1994	1994/1995	1995/1996	1996/1997	1997/1998
Dek/Omblat I	6,100.0	7,701.2	10,567.1	9,301.2	7,758.5
Dek/Omblat II	4,500.0	4,092.0	6,762.9	6,530.7	5,447.5
Good Filler	3,000.0	2,298.9	2,536.1	4,947.5	4,126.9
Average Filler	1,625.0	1,641.4	1,902.1	3,265.3	2,806.3
Filler	1,050.0	892.0	1,268.0	2,671.6	2,393.6

3.5. Income of Tobacco Farmers

3.5.1. Land Productivity. The productivity of land devoted to tobacco is determined by many factors, including the type of seeds, season, weather, method of farming and availability of water. During 1995 to 2002, the productivity of land used for tobacco cultivation increased, from 649 kg/ha to 827 kg/ha (Table 3.13).

Table 3.13
Tobacco productivity, 1995-1998²¹

Year	Productivity ^a (kg/ha)
1995	649
1996	680
1997	624
1998	621
1999	809
2000	804
2001	814
2002	827

3.5.2. Profits in Tobacco Farming. Profits are determined by the type of tobacco and location planted. During the 1997/1998 planting season, profits from tobacco farming varied from Rp 1.17 million (US\$ 133) to Rp 3.95 million (US\$ 450) per ha.²² The most profitable tobacco is the Virginia type tobacco planted in West Nusa Tenggara and Bali. This accounts, however, for only about 18% of total tobacco cultivated. The most commonly planted type is People's tobacco with a profit of Rp 1.2 – 2.2 million per ha. (Table 3.14).

²⁰ Directorate of Farming Production, Directorate General of Farming, Ministry of Agriculture and Farming, March 2000, Tobacco Commodity Technology Material, page 12 ; Note : IHK year 1993=100.

²¹ a) <http://apps.fao.org/page/collections?subset=agriculture>; 'b) Directorate General of Farming, 2000, Indonesian Farming Statistics 1998-2000 Page :30 for sliced tobacco.

²² Average exchange rate 1997 and 1998 was 1 US\$=Rp 8786 while in 1997 1 US\$ was Rp 6274 and in 1998 it was Rp 11299. Source : IMF. 2000

Table 3.14
Analysis of the farming enterprises according to type of tobacco in the tobacco farming central provinces, planting season, 1997/1998 (Rp. 000)²³

Province/type of tobacco	Input (Rp/ha)				Output	Profit
	Fee	Agro input	Processing	Total		
East Java						
-Virginia	900	1,810	-	2,810	4,400	1,590
-People	1,075	720	-	1,795	3,000	1,205
-Lumajang	850	775	-	1,625	2,800	1,175
-Besuki	1,290	1,600	2,075	4,965	6,720	1,755
Central Java						
-People	1,225	1,425	225	2,875	5,100	2,225
Yogyakarta						
-People	1,100	775	-	1,825	3,150	1,325
Bali						
-Virginia	950	1,012	1,200	3,162	6,600	3,438
West Nusa Tenggara						
-Virginia	950	1,545	1,200	3,695	7,650	3,955

3.6. Tobacco Trade

3.6.1. Export of Tobacco Leaves. In 2002, the export value for all unprocessed tobacco leaf and products²⁴ was US\$ 66.5 million, or around 0.12% of the total value of all exports.

Table 3.15
Export value of tobacco leaves products and export of oil and non-oil products, (Million US\$) 1999-2002²⁵

Type of export commodity	1999	2000	2001	2002
Industrial Products	33,332.40	42,002.90	37,671.10	38,729.60
Oil	9,792.20	14,366.60	12,636.30	12,112.70
Agriculture Products (including tobacco)	2,901.40	2,709.10	2,438.50	2,568.30
Mining Products	2,634.50	3,080.80	3,569.60	3,743.70
Other Sectors	4.90	4.50	5.40	4.50
Value of total exports	48,665.40	62,124.00	56,320.90	57,158.80
Value of unmanufactured tobacco export (leaves)	79.10	63.60	80.80	66.50
Value of tobacco export as % of export value	0.16	0.10	0.14	0.12

3.6.2. Export Value of Tobacco Products. From the export and import data during January-December 2001, the total export of tobacco product commodity and its processed product was 76,401.6 tons with a value of US\$ 274.9 million. which is around 0.48% of the total value of exports.

Subtracting imports from exports in 2001, the net export of tobacco and its processed products was 20,247 tons with a value of US\$ 54.7 million. In this year, the value of imports exceeded the value of exports by US\$ 48.2 million,

²³ Directorate General of Farming, Ministry of Forestry and Farming, March 2000. Technical Material on Tobacco Commodities.

²⁴ not stemmed with standard codes 12110100 and 12110900

²⁵ <http://www.bps.go.id/sector/fttrade/export/table2.shtml>

leaving a negative export value for un-manufactured tobacco products. Of the various types of products of the un-manufactured tobacco, type partly or wholly stemmed Virginia type flue cured the biggest negative net export value was (-) US\$106,539,476. This type of tobacco is used in for white cigarette production and exports. The export value of cigarettes excluding imports exceeded US\$ 176 million in 2001. The total export value for both manufactured and unmanufactured products, therefore, was US\$ 54.7 million.

Table 3.16
Export and import of tobacco products Indonesia,
January-December 2001²⁶

<i>Standard Code of International Trade</i>	Export		Import		Net =Export-Import	
	Net weight (kg)	Value (US \$)	Net weight (kg)	Value (US \$)	Net weight (kg)	Value (US \$)
Un-manufactured	43,031,117	91,404,293	44,346,810	139,609,562	-1,315,693	-48,205,269
Cigarettes	31,464,723	176,944,329	291,268	683,903	31,173,455	176,260,426
Other raw materials	1,905,785	6,578,974	11,516,452	79,888,585	-9,610,667	-73,309,611
Total for tobacco products	76,401,625	274,927,596	56,154,530	220,182,050	20,247,095	54,745,546

3.6.1. Export Value of Tobacco Leaves. The maximum quantity of imported or exported tobacco leaves (un-manufactured) is one-third of the total in-country produced tobacco leaves. In 2001, the total tobacco import was 44,347 tons or around 33 % of the total in-country production and 32 % of the tobacco export, amounting to 43.031 tons (Table 3.17). While the quantity of imports is almost the same as exports, the US\$ value of imported tobacco was 34.5% higher compared to the value of exported tobacco. The value of imported leaf was US\$ 139,609,562, whereas the value of exported leaf was US\$ 9,404,293. This indicates a deficit in the Indonesian trade of tobacco leaves.

In general, countries that are full or net importers of tobacco products are less affected by tobacco control policies compared with major producers and exporters that rely on tobacco for foreign currency. Reduced spending on imports allows for greater spending on domestic products that are not harmful to health.

3.6.4. Import and Export Ratios for Un-manufactured Tobacco Leaves. Between 1995 and 2001, the total export of un-manufactured tobacco reached 16-34% of total domestic production, whereas the imported un-manufactured tobacco was 13-34% of the total domestic production. As can be seen from the import and export ratio of tobacco every year, the quantity of imported tobacco leaf as a proportion of imported products is higher than the proportion of exported leaves. The exception was in 1998. In 2000, total import was near the total export (Table 3.17).

²⁶ Central Bureau of Statistics, 2002. Export Import Statistics 2001; Note: SITC (Standard International Trade Classifications)

Table 3.17
Ratio of quantity of un-manufactured tobacco export and import against total production, Indonesia 1995-2001²⁷

Year	Import (ton)	Export (ton)	Production (ton)	Import as % of Production	Export as % of Production	Import as % of Export
1995	47,954	21,989	140,169	34.21	15.69	218.08
1996	45,060	33,205	151,025	29.84	21.99	135.70
1997	47,108	42,281	136,746	34.45	30.92	111.42
1998	17,152	46,960	137,564	12.47	34.14	36.52
1999	40,913	37,097	135,384	30.22	27.40	110.29
2000	34,248	35,658	135,578	25.26	26.30	96.05
2001	44,347	43,031	134,379	33.00	32.02	103.06

3.6.5. Trend in Tobacco Product Imports. Import of unmanufactured tobacco (tobacco leaves) into Indonesia during the period 1998-2001 was dominated by stemmed virginia tobacco, used in the production of white cigarettes. From its quantity, 48.1% to 65.7% of un-manufactured tobacco imports into Indonesia are comprised of Virginia type stemmed tobacco. As a whole, the quantity of unmanufactured tobacco import in Indonesia for the period of 1999 to 2001 increased from 48,840 tons to 56,237 tons. Imports for all products dropped in 1998.

Table 3.18
Quantity of un-manufactured tobacco products according to type of product (Ton), 1998-2001²⁸

	1998	1999	2000	2001
Un-manufactured products (tons & % of ttl)				
Not stemmed	3,906 (19.7)	10,992 (22.5)	9,360 (21.9)	6,578 (11.7)
Stemmed Virginia	9,521 (48.1)	26,124 (53.5)	23,214 (54.4)	36,938 (65.7)
Stemmed other	3,455 (17.5)	1,260 (2.6)	474 (1.1)	830 (1.5)
Total import (unmanufactured)	16,882 (85.3)	38,376 (78.6)	33,048 (77.4)	44,346 (78.9)
Manufactured tobacco imports	2,909 (14.7)	10,464 (21.4)	9,645 (22.6)	11,891 (21.1)
Total tobacco product imports	19,791 (100.0)	48,840 (100.0)	42,693 (100.0)	56,237 (100.0)

3.6.6. Quantity: Stemmed Virginia Tobacco Import. About 2/3rds of stemmed Virginia tobacco imported into Indonesia during 1999-2001 came from China (75.3 to 76 %). Overall, the quantity of import of Virginia stemmed tobacco to Indonesia increased from 26,124 tons (1999) to 36,938 tons (2001) (Table 3.19).

3.6.7. Import Value of Stemmed Virginia Tobacco. In the year 2001, the import value into Indonesian of stemmed Virginia tobacco was US\$ 108,727 million, an increase of in the nominal value of imported tobacco from 1999 (US\$ 81,649

²⁷ Production Data: USDA report 1998-2002 di <http://www.fas.usda.gov/scriptsw/attacherep/default.asp>; Export and Import at www.fao.org

²⁸ Central Bureau of Statistics, 1998-2001. Statistics on Import Out-Country Trade 1998-2001

million). The import value of stemmed Virginia tobacco from China accounted for 62.7% - 66% of the total value of such imports (Table 3.19).

Table 3.19
Import quantity (Ton) and value (US\$) of stemmed virginia tobacco according to country Of origin, 2001²⁸

Country of origin	Quantity of imports		Value of imports	
	Tons	%	000 US\$	%
China	28,182	76.3	71,764	66.0
Zimbabwe	2,995	8.1	13,988	12.9
Brazil	2,118	5.7	4,516	4.2
US	1,483	4.0	12,788	11.8
Turkey	586	1.6	1,914	1.8
Greece	469	1.3	--	--
Others	1,106	3.0	2,777	2.6
Total	36,938	100.0	108,727	100.0

3.7. Clove Production

3.7.1. Global Production of Cloves. Clove is the main raw material in the production of kretek cigarettes after tobacco. In 2002, 63.0 % of global clove supply was produced in Indonesia. The second and third world clove producing countries are Madagascar (19.7 %) and Tanzania (12.6 %) (Table 3.20).

Table 3.20.
Clove producing countries in the world, 2002²⁹

No.	Country	Production	
		In Tons	%
1	Indonesia	50,000	63.0
2	Madagascar	15,600	19.7
3	Tanzania	10,000	12.6
4	Sri Lanka	1,500	1.90
5	Comoros	1,000	1.30
6	Others	1,271	1.50
World		79,371	100.00

3.7.2. Trend of Clove Production in Indonesia. During 1995 to 1997, total production of cloves in Indonesia declined from 90,007 tons to 59,195 tons, then increased in the 1998 to 67,177 tons. The increase of clove production is most probably related to the increased clove price since the clove monopoly (BPPC) was dissolved in 1998. But between 1998 and 2002, clove production decreased again by 27.5 %, from 67,177 tons in 1998 to 52,665 tons in 2002 (Table 3.21).

²⁹ <http://apps1.fao.org/servlet/XteServlet.iRun?Areas>

Table 3.21.
Development of production and consumption of clove,
Indonesia, 1997-2002³⁰

Year	1995	1996	1997	1998	1999	2000	2001	2002
Production (ton)	90,007	59,479	59,195	67,177	52,903	48,513	50,158	52,665
Consumption (ton)	--	--	108,150	113,600	119,250	125,200	131,500	138,500

3.7.3. Consumption. An estimated 63.6 % of domestic cloves are utilized by the kretek industry.³¹ Clove consumption from the year 1997-2002 indicated an increase of 21.9 %, from 108 thousand tons in 1998 to 138.5 thousand tons in 2002 (Table 3.21).

3.8. Land and Employment Dedicated to Clove Farming

3.8.1. Land dedicated to clove farming. From 1990 to 2002, the amount of arable land used for clove farming has decreased a little but remains at around 2% of total (one season) arable land in Indonesia (Table 3.22).

Table 3.22
Percentage of arable land for clove farming
1990-2002¹⁴

Year	% of arable land used for clove farming
1990	2.05
1991	2.54
1992	2.24
1993	2.12
1994	2.29
1995	2.22
1996	2.01
1997	2.03
1998	2.03
1999	1.98
2000	1.90

3.8.2. Clove farms by type of ownership. Most clove farms are owned by small farmers and very few are private or governmental. In 2000, more than 90% of clove farms were owned by small farmers (Table 3.23).

³⁰ Production 1995-1997: <http://apps1.fao.org/servlet/XteServlet.jrun?Areas>; Production 1998-2000 : Directorate General of Farming; Price : Information on Farming Commodities Prices in Domestic Market, 2002, Directorate of Processing and Marketing of Farming Products, Directorate General for Development of Processing and Marketing of Farming Products, Ministry of Agriculture.

³¹ World Clove Report – July, 2003

<http://www.spizes.com/spiceonline/croreport/reports/200372183.asp?cropid=183>

Table 3.23
Clove area according to ownership, Indonesia 1990-2000³²

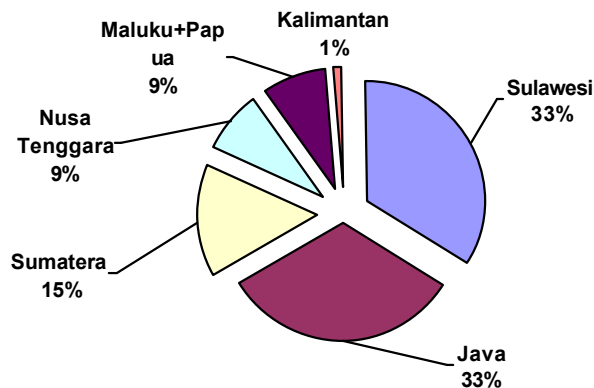
Year	Area (ha)			
	Small farmers	Government	Private	Total
1990	672,607	3,968	16,107	692,682
1991	650,407	3,298	14,499	668,204
1992	592,446	3,086	12,818	608,350
1993	556,496	2,307	12,244	571,047
1994	520,012	2,221	12,143	534,376
1996	479,379	1,914	10,420	491,713
1997	447,549	1,928	8,065	457,542
1998	419,827	1,860	7,048	428,735
1999 *)	420,850	1,860	7,048	429,758
2000 **)	420,975	1,860	7,048	429,883

3.8.3. Clove Farms by Island and Province. Most of the land used for clove farming (81.6 %) is located on 3 islands: Sulawesi (33.8 %), Java (32.5 %) and Sumatera (15.3 %) (Table 3.25). More than half of the cloves produced come from 5 provinces: Central Java (13.1 %), Central Sulawesi (11.5 %), South Sulawesi (11.2 %), West Java (10.7 %), and North Sulawesi (9.6 %).

Table 3.24
Distribution of clove farms by island 2001³²

No.	Island	Extent	
		ha	%
1	Sulawesi	145,389	33.8
2	Java	139,920	32.5
3	Sumatera	65,803	15.3
4	Nusa Tenggara	37,454	8.7
5	Maluku+Papua	37,113	8.6
6	Kalimantan	4,204	1.0
	Total	429,883	100.0

Graph 3.3. Distribution of clove farms by island, 2001



³² Directorate General of Farming 2001. Indonesian Farming Statistics 1999-2001

3.8.4. Employment in clove farming by province. The number of clove farmers in 1999 was 1,198,900 or 3.1 % of total farmers in the agriculture sector, or 1.3% of total formal sector employment. More than half of clove farmers work in 2 provinces: Central Java 394,464 farmers (32.9 %) and West Java 240,122 farmers (20 %). 2002 data reported by the Directorate of Annual Plants, Ministry of Agriculture³³ indicates that the number of clove farmers in 2002 became 1480 thousand persons or increased by 23.5 % during the period of 1999-2002 (Table 3.25).

Table 3.265
Clove farmers by province, 1999³²

No.	Province	Number of farmers	
		(Persons)	(%)
1	Central Java	394,464	32.9
2	West Java	240,122	20.0
3	South East Sulawesi	87,093	7.3
4	Bali	72,088	6.0
5	South Sulawesi	63,919	5.3
6	Maluku	47,377	4.0
7	D.I. Aceh	46,624	3.9
8	East Java	38,582	3.2
9	Central Sulawesi	33,260	2.8
10	Lampung	31,140	2.6
11	East Nusa Tenggara	30,506	2.5
12	West Sumatera	29,143	2.4
13	Bengkulu	23,850	2.0
14	Others	60,688	5.1
	Total	1,198,856	100

3.9. Clove Prices

3.9.1. Clove Trading Monopoly. The BPPC was established in 1990 with the right to purchase cloves from the producer's cooperation (KUD) for resale to cigarette companies. Presidential decree No. 20/ 1992, 11 April 1992, established the trading mechanism for domestically produced cloves. It stipulated that clove purchases from farmers were to be done by the Village Unit Cooperation (Koperasi Unit Desa or KUD) with the prices fixed by the president. The KUD sold the cloves purchased from the farmers to BPPC established by the government with a fixed price. The implication is that the profit from any market price increase would be enjoyed by the BPPC instead of the farmers. BPPC was abolished on 30 June 1998, as a consequence of signing of the Letter of Intent (LOI) between the government of Indonesia and IMF.³⁴

³³ Clove Commodity Profile, Directorate General for Development of Farming Production, Directorate of Annual Plants, Ministry of Agriculture, September 2002.

³⁴ Decree No. 22/MPP/Kp/1/1998. In <http://www.tempo.co.id/min/eng/03/04/utama2-e.htm>

3.9.2. Trend in Real Clove Prices. According to Jardine Flemming Securities, 1990, at the start of the monopoly, cloves purchased by kretek cigarette companies increased in price from Rp. 7,000 per kg to Rp. 12,500 in 1991. This caused an increase in production costs for kretek cigarette companies.³⁵ The presidential instruction No. 1 year 1992 dated 16 April stipulated that the price to purchase clove by the Village Unit Cooperation from farmers is fixed at Rp 6000 to 7,900 per kg for cloves.³⁶ In reality, according to the Directorate General for the Processing and Marketing of Agriculture Products, Ministry of Agriculture, the average nominal price of dried clove at the farmers' level was much lower, around Rp 2,570 to Rp 3,800 per kg. Between 1993 and 1997, the real price of cloves was relatively stable. After BPPC was abolished in 1998, real clove prices increased three-fold compared to 1997 prices.³⁷ During 1997-2002 period, real prices increased dramatically by more than 13 times.

Table 3.26
Clove price (dried) in the commodity market, 1993-2001³⁸

	Clove Price (Rp/Kg)								
	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nominal price	2,570	2,680	2,720	2,820	3,800	7,420	20,000	30,875	57,698
Real price ^a	1,142	1,068	913	794	952	4,365	6,711	7,530	12,570

3.10. Clove Trading

3.10.1. Trend of Production and Consumption of Clove. In 1999, the size of clove import drastically increased, in line with the decreased national clove production and initial stock; even though the amount of production and initial stock is still bigger than the level of demand or need in the same year. This continued until 2001, with a fluctuated amount of imports. In 2002, the national clove production level (52.7 thousand tons) fulfilled 38 % of the national clove consumption (138.5 thousand tons) (Table 3.27).

³⁵ In Kelly Bird (1999); Industrial Concentration and Competition in Indonesian Manufacturing. Doctoral Thesis. The Australian National University.

³⁶ Detail of this price is: received from the clove farmers Rp 4,000.- clove farmers' mutual fund to be included in the KUD capital Rp 2,000.- and KUD deposit money to be given to the clove farmers after the KUD received clove selling money from BPPC Rp 1,900.- per farmer (only for good quality clove farmers). For more lower quality, the clove price is determined by the Minister of Trade, and money to be included in the KUD capital of Rp 2,000.- per kg should still be paid.

³⁷ <http://www.tempo.co.id/min/eng/03/04/utama2-e.htm>

³⁸ a) Using the Price Index for Wholesale of the Farming Sector 1993=100; Information – Farming Commodity Price at in the Domestic Market 2002, Directorate of Processing and Marketing of Farming Products, Directorate General for Development of Processing and Marketing of Farming Products, Ministry of Agriculture.

Table 3.27.
Estimation of demand and national clove production, 1997-2002³⁹

Year	Initial Stock (ton)	National Production (ton)	Initial Stock + National Production (ton)	Import (ton)	Total Supply ¹ (ton)	Consumption for kretek manufacturing (ton)	Export (ton)	Total Demand ² (ton)	Final Stock ⁽¹⁻²⁾ (ton)
1997	204,231	59,192	263,423	n.a.	263,423	108,150	356	108,506	154,917
1998	154,917	67,177	222,094	1,183	223,277	113,600	20,157	133,757	89,520
1999	89,520	52,903	142,423	22,610	165,033	119,250	1,776	121,026	44,007
2000	44,007	48,513	92,520	20,875	113,395	125,200	4,655	129,855	-16,460
2001	-16,460	50,158	33,698	16,368	50,066	131,500	3,960	135,460	-85,394
2002	-85,394	52,665	-32,731	n.a.	-32,731	138,500	n.a.	138,500	-171,231

3.10.2. Amount of Clove Import. The amount of clove import in 1998 was 1.2 thousand tons, which increased 14 fold to 16.4 thousand tons by 2001. Clove imports in 2001 were estimated at 33 % of the national clove production or 12 % of the national consumption/demand (Table 3.27).

3.10.3. Import Ban. Disgruntled with the prices of cloves in 2002, clove farmers requested that the government prohibit all clove imports. In response to this, the Ministry of Industry and Trade thus prohibited clove imports into Indonesia through decree No.538/2002 dated 5 July 2002. This decree furthermore stated that clove imports are prohibited until the local clove price increased to a certain level. Yet, clove imports still enter the market.⁴⁰

³⁹ Directorate General for Development of Farming Production, Directorate of Annual Plants, September 2002. Clove Commodity Profile. Note: Initial stock based on data of the National Clove Body; Production of 2002 assumed to increase by 5 % per year; data on Consumption from GAPPRI.

⁴⁰ World Clove Report

<http://www.spizes.com/spiceonline/cropreport/reports/200372183.asp?cropid=183>

Chapter 4. The Tobacco Manufacturing Industry

4.1 Cigarette Production

4.1.1. Trend of Cigarette Production. Clove cigarette (kretek) production increased ten-fold between 1969-1994, from 14.3 to 156 billion sticks, whereas white cigarette production doubled, from 11.0 to 21.2 billion sticks.¹ Based on excise tax ribbon orders between 1995 and 2000, cigarette production increased by 16% from 199.5 billion sticks in 1995 to 230.7 in 2000 (Table 4.1). After 2000, excise tax ribbon orders declined by 14% to 197.7 billion sticks in 2002.

Graph 4.1. Cigarette production based on excise tax ribbon sales (billion sticks), 1969-1994

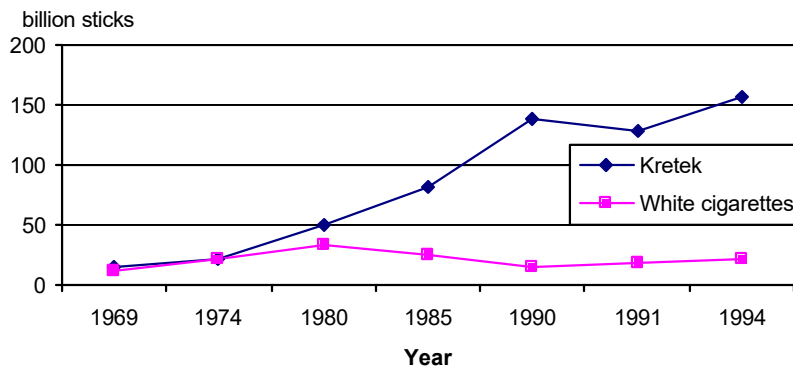


Table 4.1. Production Of Manufactured Tobacco Based On Excise Ribbon Orders, (Millions Of Sticks Or Grams), 1995-2002²

Year	Machine Kretek Cigarettes (SKM)	Handmade Kretek Cigarettes (SKT)	Machine White Cigarettes (SPM)	Cigars (CRT)	Cornhusk Cigarettes (KLB)	Rhubarb Cigarettes (KLM)	Sliced Tobacco (TIS)	Total
1995	117,870.68	56,794.72	24,786.23	110.62	618.17	130.71	4,054.36	204,365.49
%	57.7	27.8	12.1	0.1	0.3	0.1	2.0	100.0
1996	129,309.50	57,742.99	28,677.01	124.90	565.65	103.94	3,651.88	220,175.87
%	58.7	26.2	13.0	0.1	0.3	0.0	1.7	100.0
1997	141,955.66	55,500.91	29,368.91	94.61	419.11	50.92	4,249.67	231,639.79
%	61.3	24.0	12.7	0.0	0.2	0.0	1.8	100.0
1998	125,072.51	68,977.67	32,521.06	77.17	620.41	48.18	4,825.34	232,142.33
%	53.9	29.7	14.0	0.0	0.3	0.0	2.1	100.0
1999	111,432.02	84,222.08	30,328.29	43.52	623.09	55.38	4,669.72	231,374.11
%	48.2	36.4	13.1	0.0	0.3	0.0	2.0	100.0
2000	119,551.28	85,341.66	25,785.29	29.29	506.34	42.72	4,269.82	235,526.39
%	50.8	36.2	10.9	0.0	0.2	0.0	1.8	100.0
2001	114,312.20	87,036.12	24,675.23	27.70	587.12	61.81	4,903.16	231,603.34
%	49.4	37.6	10.7	0.0	0.3	0.0	2.1	100.0
2002	99,980.48	80,410.36	24,205.84	21.81	607.27	45.04	5,576.15	210,846.95
%	47.4	38.1	11.5	0.0	0.3	0.0	2.7	100.0

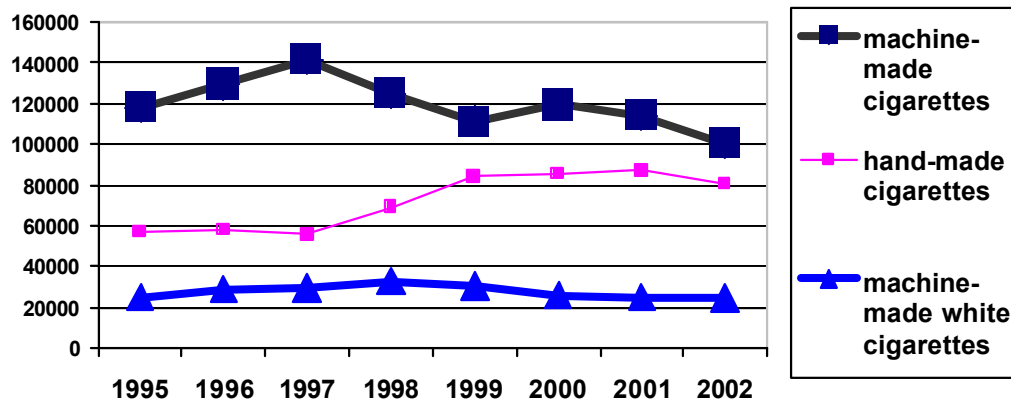
¹ GAPPRI data in Bird, Kelly 1999. Industrial Concentration and Competition in Indonesian Manufacturing. Doctoral Thesis. The Australian National University.

² Figures do not include exports. Source: The Excise Bureau; Note: 1 stick: 1gram

4.1.2. Reasons for the Decline in Excise Ribbon Orders. There are several possible reasons for the decline in excise ribbon orders, including a decrease in tobacco consumption or excise tax evasion.³ Most international evidence shows that cigarette demand is inelastic; the rapid decrease in tobacco consumption is not consistent with international evidence.⁴ In addition, Sampoerna and Gudang Garam combined report an increase in profits between 2001 and 2002.⁵

4.1.3. Excise Ribbon Orders by Cigarette Type. More than 97% of excise tax ribbon orders are for cigarettes: machine made kreteks (SKM, 47.6%), handmade kreteks (SKT, 38%) and machine made white cigarettes (SPM, 11.5%). The remaining 2 to 3% are cigars (CRT), cornhusk cigarettes (KLB), rhubarb cigarettes (KLM) and sliced tobacco (TIS). Excise ribbon orders for handmade kretek cigarettes increased as a proportion of total excise ribbon orders, from 27.8% in 1995 to 38.1% in 2002. This decrease could be attributed to a favorable tax climate. Lower tax rates for handmade *kreteks* provide incentives to the industry to produce cigarettes within the lower tax bracket. In some cases, it also results in lower prices at point of sale given that tax rates comprise a large proportion of the total production cost (see Chapter 5).

Graph 4.2
Cigarette production based on excise ribbon orders,
Million Sticks (1995-2002)²



4.2. Market Share

4.2.1. Domination of Large Industries. The market share for cigarettes is dominated by three large companies: Gudang Garam, Djarum (Gelora Djaya) and Sampoerna which covered 76% of the market in January 2003 (Graph 4.3).⁶ This represents a

³ Ongoing study by Ministry of Finance and Diponegoro University preliminary findings in "Cigarette Makers among Jakarta's Largest Tax Cheats." The Straights Times Singapore. May 24, 2003. http://www.asia-pacific-action.org/southeastasia/indonesia/netnews/2003/ind_20v7.htm

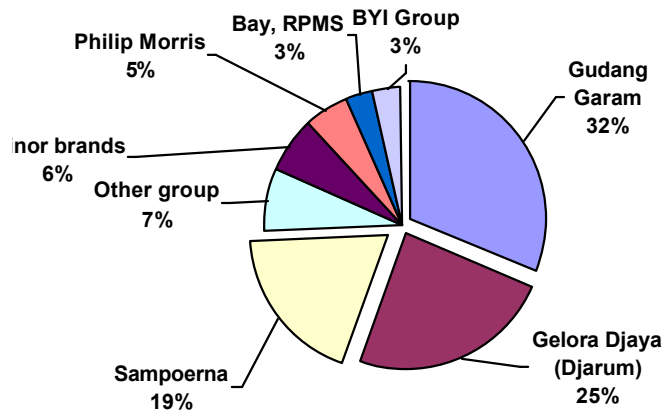
⁴ See World Bank: Economics of Tobacco Control Website. <http://www1.worldbank.org/tobacco/>

⁵ See Sampoerna <http://www.indoexchange.com/jsx/hmsp/etc/0306.htm> and Gudang Garam <http://www.indoexchange.com/jsx/ggrm/financial/spreadsheet-quarterly-index.html>

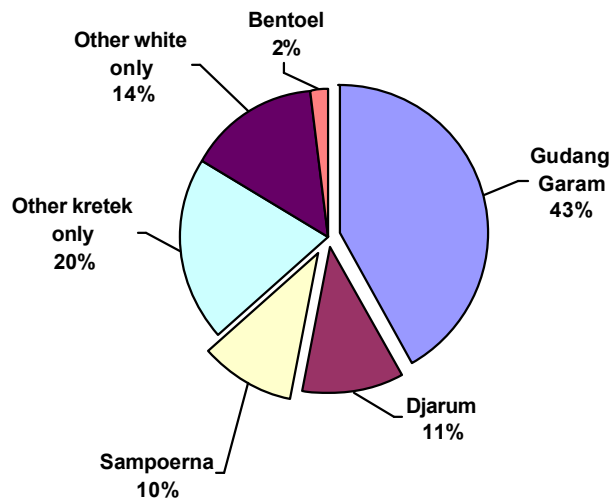
⁶ AC Nielson Data published online in Sampoerna 12th annual expose, 2003. <http://www.indoexchange.com/jsx/hmsp/etc/0909hmsp.htm>

very large increase in market share dominated by the three largest industries, covering about 62% of the market in 1998. (Table 4.2)

Graph 4.3. National market share by industry, January 2003⁶



Graph 4.4. National market share by industry, 1998⁷



4.2.2. Market Share of Kretek vs White Cigarettes, 1995-1998. During 1995 to 1997, the market share for kretek cigarettes (machine and handmade) was stable at 88%, whereas white cigarette companies covered the remaining 12%. There is a decrease of 2% in 1998 where the market share of kretek cigarettes (machine and handmade) became 86% and white cigarettes increased to 14%.

⁷ Jardin Fleming Research (1999). Indonesia Tobacco. pp 34-38

Table 4.3
Market share according to cigarette industries in 1995-1998⁷

Industries	Market Share (%)							
	1995		1996		1997		1998	
Kretek (K)	% Kretek	% total	% Kretek	% total	% Kretek	% total	% Kretek	% total
Gudang Garam	47	41.3	47	41.1	48	42.1	47	40.2
Djarum	16	14	14	12.5	14	12.2	13	11.0
Bentoel	5	4.8	3	2.4	1	1.4	3	2.3
Sampoerna	11	9.6	12	10.7	12	10.5	12	10.4
Noyorono	3	2.3	3	2.1	2	1.7	2	2.1
Others	18	15.5	21	19.1	23	20.2	23	19.8
Total Kretek	100	87.5	100	87.9	100	88.1	100	85.8
White cigarettes(P)	--	12.5	--	12.1	--	11.9		14.2
Kretek+White	--	100	--	100	--	100		100

4.2.3. Market Share for Large Cigarette Companies, 1979-1994 Trends. The market share of Gudang Garam (GG) tends to increase during the period of 1979-1994 from 12% (1979) to 43% (1994). In 1989 the market share of Djarum drastically increased from 13% in 1879 to 28% in 1989, equal to Gudang Garam but then decreased again to 18% in 1994. (Table 4.4).

Table 4.4
(%) Market share of 8 large-scale cigarette industries 1979, 1989, 1994⁸

Name	1979	1989	1994
Gudang Garam	12	28	43
Djarum	13	28	18
Bentoel	8	11	7
Sampoerna	1	3	7
BAT	15	3	5
Marlboro*	0	2	5
Nojorono	4	3	2
STTC	10	4	1
Faroka	4	1	1
Others	33	17	11
Total	100%	100%	100%

4.3. Cigarette Companies

4.3.1. Industry Size Categories.⁹ According to the Central Bureau of Statistics (BPS), the categories for classifying industry by size are: a) Large Industry with 100 or more laborers; b) Medium Industry: 20-99 laborers; c) Small Industry: 5-19 laborers; d) Home Cottage Industry: 1-4 laborers.

⁸ GAPRI data, and Survey Research Indonesia in Bird, 1999. Industrial Concentration and Competition in Indonesian Manufacture, Thesis, Australian National University; Remarks:*) production started in 1983

⁹ The Ministry of Finance, on the other hand, uses excise ribbon orders to estimate a different classification based manufactured tobacco production for excise tax rates, see <http://www.beacukai.go.id/peraturan/bank/8900.pdf>

4.3.2. Increase in the Number of Large and Medium Industries. Based on BPS data, 1998-2001, the number of large and medium scale cigarette industries shows a meaningful increase. In 1996, large and medium scale cigarette industries numbered 839 and increased to 861 in the year 2001. (Table 4.5)

4.3.3. Number of Large and Medium Cigarette Companies. In 2001, there were 861 large and medium size cigarette companies, which comprises 3.8% of the total number of manufacturing industries.

Table 4.5.
The development of large and medium scale cigarette industries 2001¹¹

Details	Year					
	1996	1997	1998	1999	2000	2001
Tobacco	839	874	785	807	821	861
Total manufacturing industries	22,997	22,386	21,423	22,070	22,174	22,648
Tobacco as a % of total manufacturers	3.65	3.90	3.66	3.66	3.70	3.80

4.3.4. Tobacco Products and the Size of the Industry. Among the 821 in 2000, 211 (26%) were large industries and the remaining 610 (74%) were small industries (Table 4.6). In 2000, 66.5% of companies manufacturing tobacco are involved drying and processing tobacco and 26% of companies are kretek producers. Companies that produce white cigarettes account for only 1.2% of all tobacco manufacturers, other cigarettes 3.3%, and other tobacco products, cigarette spices and klobot 3.3%. Based on the number of companies registered with the Excise Bureau and producing SKT at 6 million sticks per year or less, it is estimated that an additional 155 very small companies existed in 2002.¹²

Table 4.6.
Type of tobacco products by industry scale, 2000¹¹

ISIC	Products	Medium scale	Large scale	Total Large and Medium Scales	
16001	Dried and Processed Tobacco	498 91.0	49 9.0	547 100%	66.5
16002	Kretek Cigarettes	70 33.3	140 66.6	210 100%	25.6
16003	White Cigarettes	3 30.0	7 70.0	10 100%	1.2
16004	Other Cigarettes	17 62.9	10 37.1	27 100%	3.3
16009	Other Tobacco Products (cigarette spices/flavours, etc)	22 81.5	5 18.5	27 100%	3.3
16000	Tobacco Products Industry	610 74.3	211 25.7	821 100%	100 %

¹⁰ Employment data from UNIDA industrial statistics database. Country Economic Brief. Indonesia: Curbing the Tobacco Epidemic. <http://www1.worldbank.org/tobacco/pdf/country%20briefs/Indonesia%20.pdf>

¹¹ BPS. 2002. Indicator Large and Medium Industries 2000. Jakarta

¹² For his estimate of the number of SKT companies producing 6 million sticks or less pa, see Stephen Marks, July 2003. Cigarette excise taxation in Indonesia, an economic analysis. Partnership for economic growth, BAPPENAS and USAID; <http://www.pegasus.or.id/public.html>

4.4. Employment in Tobacco Manufacturing Sector

4.4.1. Employment Trends. The number of workers in the tobacco industry increased from 132,000 in 1970 to 245,626 in the year 2000. The role of tobacco processing industries in providing employment, however, has significantly declined since the 1970s. In 1970, tobacco industries absorbed 38% of the total industrial employment¹³ whereas this proportion declined to 5.6% in 2000 (Table 4.7).

Graph 4.5.

Employment in the tobacco processing industry, 1970-2000, from de Bayer and Yurekli¹⁰

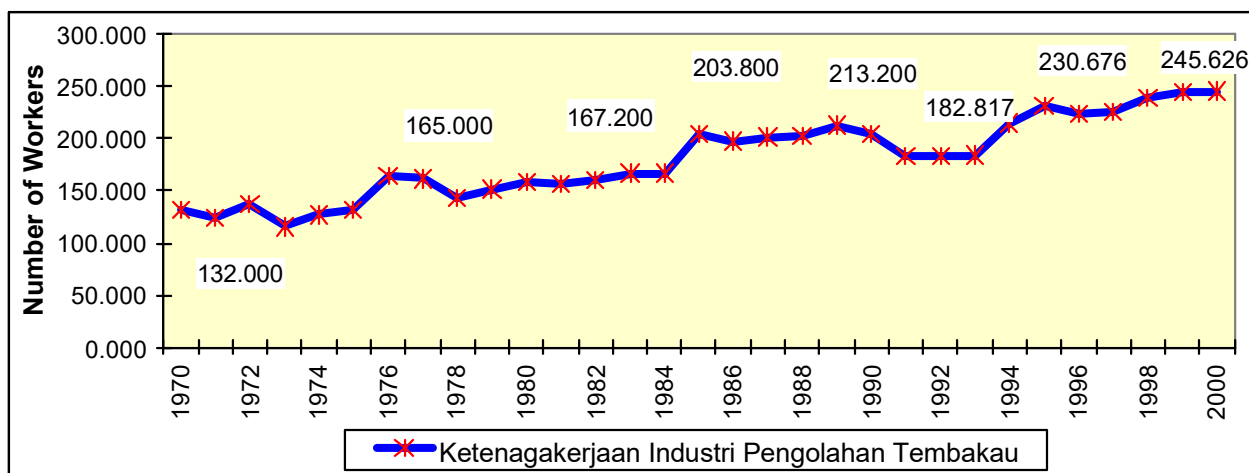


Table 4.7.

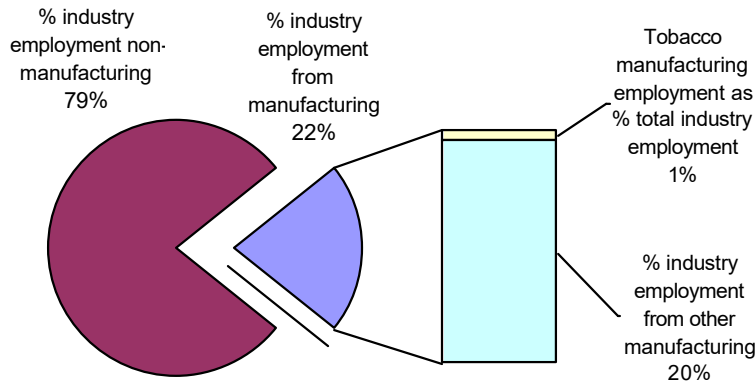
Number of workers in the tobacco industry, 1996-2000¹⁴

Number of persons employed in--	1996	1997	1998	1999	2000
Tobacco manufacturing	223,307	225,640	238,848	244,457	245,626
Manufacturing	4,214,967	4,154,837	4,123,612	4,234,983	4,366,816
Tobacco manufacturing as % total manufacturing employment	5.3	5.4	5.8	5.8	5.6
Industry sector	19,450,400	20,682,500	18,431,500	20,051,200	20,215,400
Tobacco manufacturing employment as % of total industry employment	1.15	1.09	1.30	1.22	1.22
Workforce Growth (%/year)		1996-97	1997-98	1998-99	1999-00
Tobacco Processing Industry		1.0	5.9	2.3	0.5
Processing Industry		-1.4	-0.8	2.7	3.1
All Types of Industry		5.96	-12.21	8.08	0.81

¹³ Ayda Yurekli and Joy de Bayer, World Bank 2002. Employment data from UNIDA industrial statistics database. Country Economic Brief. Indonesia: Curbing the Tobacco Epidemic.
<http://www1.worldbank.org/tobacco/pdf/country%20briefs/Indonesia%20.pdf>

¹⁴ Central Bureau of Statistics, 2002. Indicator of Large and Medium Industries 2000; Industrial Statistics, January 2000

Graph 4.6.
Tobacco manufacturing workers as a proportion of
the total manufacturing and industrial labor force, 2000



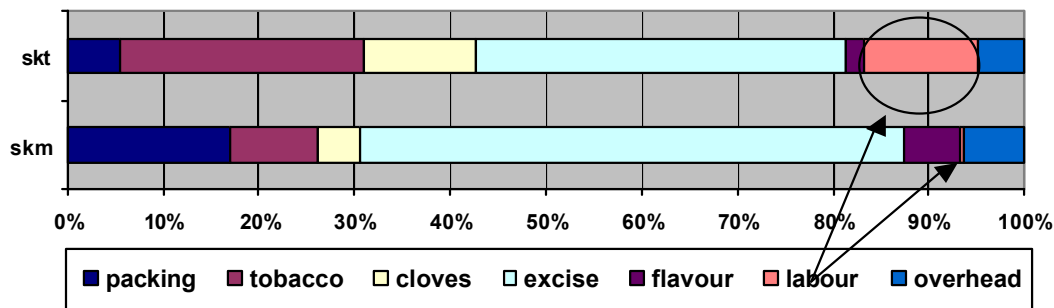
4.4.2. Proportion of Workers in the Tobacco Manufacturing Industry. During the period of 1996-2000, tobacco manufacturing employment was stable, at approximately 5.3% to 5.8% of total employment in the manufacturing sector. Tobacco manufacturing as a proportion of total industrial sector employment remained between 1% and 1.3%.

4.4.3. Growth in Tobacco Manufacturing Employment. Employment in tobacco manufacturing has increased by 1% between 1996 and 1997 and 5.9% between 1997 and 1998. The manufacturing employment and the industrial sector also experienced negative growth, corresponding to the monetary crisis. This condition changed immediately in the year 1998 and 1999. After 1998, the rate of growth in tobacco manufacturing declined; it was 2.3% in 1998-9, and decrease to 0.5% between 1999-2000. After 1998, employment in the manufacturing and industrial sector experienced positive growth (Table 4.7).

4.4.4 Factors Influencing Employment in Tobacco Manufacturing. The most important factors influencing employment in the tobacco industry are mechanization and other technologies that improve efficiency. The mechanization of cigarette production in Indonesia, for example, substantially reduced labor costs. One study estimated that the proportion of labor cost in SKT (hand rolled kreteks) is 12% compared to 0.4% in SKM (machine rolled kreteks) (Graph 4.7).¹⁵

¹⁵ PT. Jardine Fleming Nusantara, Jakarta. (1999). Jardine Fleming Research Indonesia, Indonesia Tobacco.

Graph 4.7
Distribution of labor costs for SKT and SKM Cigarettes¹⁵



4.4.5. Employment in Tobacco Manufacturing by Product Type. In 2000, the number of tobacco product industries was 821, absorbing 254,626 workers. Among the 821 tobacco manufacturers, the biggest proportion (66.6%) dry and process tobacco. Kretek manufacturers, however, employ the largest number of workers, or 81.8% of total employment in tobacco manufacturing (Table 4.8).

Table 4.8
Distribution of workers according to types of tobacco products, 2000¹¹

Types of Industry Products	Company Distribution		Distribution of Employees	
	In pcs	%	In person(s)	%
Dried and Processed Tobacco	547	66.6	35,565	14.5
Kretek Cigarettes	210	25.6	200,900	81.8
White Cigarettes	10	1.2	4,353	1.8
Other Types of Cigarettes (cigars, rhubarb)	27	3.3	3,058	1.2
Other Tobacco Products (spices/flavours etc)	27	3.3	1,750	0.7
All tobacco products	821	100.0	254,626	100.0

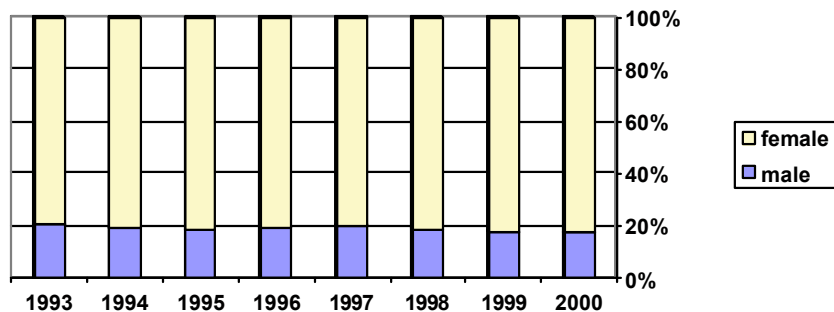
4.4.6. Employment in Tobacco Manufacturing by Sex. Most of the people who work in tobacco manufacturing are women. In 2000, 82.3 % of the workers were *females* and 17.7% were *males*. Observations from year to year reveal that, even though the total employment in tobacco manufacturing increased, female workers are still dominant (Table 4.9).

Table 4.9
Number of workers in tobacco product companies according to Sex, 1993-2000¹⁶

Year	Total Workers (persons)			Total Workers (%)		
	Males	Females	Total	Males	Females	Total
1993	38,411	147,201	185,612	20.7	79.3	100.0
1994	41,193	174,836	216,029	19.1	80.9	100.0
1995	45,046	200,960	246,006	18.3	81.7	100.0
1996	43,372	179,935	223,307	19.4	80.6	100.0
1997	45,439	180,904	226,343	20.1	79.9	100.0
1998	44,793	194,055	238,848	18.8	81.2	100.0
1999	44,277	200,245	244,522	18.1	81.9	100.0
2000	43,549	202,077	245,626	17.7	82.3	100.0

¹⁶ Central Bureau of Statistics 1987-2002. Statistics of Large and Medium Industries 1985-2000

Graph 4.8
Proportion of women employed in tobacco manufacturing, 1993-2000¹⁷



4.4.7. Average Income. In the year 2000, the average income per month in the tobacco processing industry was Rp 446,000 / worker or 63% of the monthly income of worker in processing industries other than tobacco (Rp 713,000 per person). Workers in tobacco manufacturing industry received only 40.8% of the income of workers in other manufacturing industries in 1995, whereas in 1998 tobacco industry workers received 80.9% of average wages in the manufacturing sector (Table 4.10).

Table 4.10
Average nominal income of workers in tobacco processing industries and other processing industries, 1985-2000¹⁸

Year	Other Processing Industries	Tobacco Processing Industry	
	(Rp/month)	(Rp/month)	Percentage against average income in other processing industries
1993	233,000	138,000	59.2
1994	252,000	143,000	56.7
1995	287,000	117,000	40.8
1996	320,000	192,000	60.0
1997	385,000	206,000	53.5
1998	588,000	476,000	80.9
1999	613,000	422,000	68.8
2000	713,000	446,000	62.6

4. 5. Tobacco Trade

4.5.1 Export Value of Cigarettes as a Proportion of Total Export Value.

Cigarette exports contributed only 0.3-0.5% of the total value of industrial exports and only 0.24-0.31% of the total value of all exports between 1998 and 2001 (Table 4.11).

¹⁷ BPS 1987-2002. Statistics of Large and Medium Industries 1985-2000

¹⁸ Note: *) Average income/month = {Total cost for worker including social and accident allowances, pension, and bonus, divided by number of workers to be paid}

Source: Central Bureau of Statistics 1987-2002. Statistics of Medium and Large Industries 1985-2000

Table 4.11
Cigarette export and other industry products (Million Us\$), 1999-2001¹⁹

Type of export commodity	1999	2000	2001	2002
Industrial Products	33,332.40	42,002.90	37,671.10	38,729.60
Oil	9,792.20	14,366.60	12,636.30	12,112.70
Agriculture Products:	2,901.40	2,709.10	2,438.50	2,568.30
Mining Products	2,634.50	3,080.80	3,569.60	3,743.70
Other Sectors	4.90	4.50	5.40	4.50
Value of total exports	48,665.40	62,124.00	56,320.90	57,158.80
Value of cigarette exports	117.00	143.63	176.90	
Value of cigarette exports as % of export value	0.24	0.23	0.31	

4.5.2 Quantity of Cigarette Export. During the period of 1995-2002, the quantity of exported cigarettes fluctuated from a minimum of 11.5 billion in the year 1999 to the highest quantity of 23.1 billion in the year 1997. The quantity of cigarette export is around 5% (year 1999) - 11% (year 1995) of total domestic production. In the year 2002, the number of exported cigarettes was 22 billion sticks and the production was 200 billion sticks. So, most of the cigarettes produced in Indonesia are consumed domestically (Table 4.12)

Table 4.12.
Proportion of cigarette export and import against cigarette production (Million Sticks), 1995-2002²⁰

Quantity	1995	1996	1997	1998	1999	2000	2001	2002
Import (million sticks)	294	90	84	16	121	400	206	300
Export (million sticks)	21,175	19,225	23,090	17,080	11,500	16,052	22,220	22,000
Production (million sticks)	186,200	211,823	225,385	216,200	219,700	232,724	221,293	200,000
Import as % of production	0.2	0.0	0.0	0.0	0.1	0.2	0.1	0.2
Export as % of production	11.4	9.1	10.2	7.9	5.2	6.9	10.0	11.0

4.5.2 Export Value (Cigarettes) as a Proportion of Total Tobacco Exports. In 2001, the export value of cigarettes in Indonesia was US\$ 176.9 million or around 64.4 % of the export value of tobacco products. The quantity of cigarettes exported was 31,464,723 kg or around 41.2 % of the quantity of export of tobacco products (Table 4.13).

¹⁹ Source : processed from : <http://www.bps.go.id/sector/fttrade/export/table2.shtml>; Processed from BPS, Export Statistics 1999-2000

²⁰ Source: USDA report 1998-2002 di <http://www.fas.usda.gov/scriptsw/attacherep/default.asp>

Table 4.13
Export and import of Indonesian cigarettes, January-December 2001²¹

International Trade Standard Code (SITC)	Export		Import		Net=Export-Import	
	Net weight	Value	Net weight	Value	Net weight	Value
	(kg)	(US \$)	(kg)	(US \$)	(kg)	(US \$)
Cigars, cheroots, cigarillos	310,216	4,272,167	1,193	66,675	309,023	4,205,492
Machine made kreteks	6,763,867	75,062,317	75	570	6,763,792	75,061,747
Other Cigarettes (white)	24,343,840	97,002,013	288,831	583,940	24,055,009	96,418,073
Other tobacco substitutes	46,800	607,832	1,169	32,718	45,631	575,114
Total	31,464,723	176,944,329	291,268	683,903	31,173,455	176,260,426
Total tobacco products						
In US\$	76,401,625	274,927,596	56,154,530	220,182,050	20,247,095	54,745,546
Cigarettes as % of total	41.2	64.4	0.5	0.3		

4.5.4 Net Export Value (Cigarettes). Net export value is export value deducted by import value. For the year 2001, the net export value for cigarette group indicated (+) US\$ 176,260,426 with an export value of US\$ 176,944,329 and import value of US\$ 683,903. The types of cigarettes with most contribution in the export revenue are white cigarettes amounting to US\$ 96,418,073 and machine made kreteks (SKM) with a net export value of US\$ 75,061,747 in 2001. (Table 4.13).

4.5.5 Destination and Export Value of Kretek Cigarettes. Between 1998 and 2001, most of kretek cigarettes exports went to Malaysia (73-80% of total cigarette exports and 72-83% of the total value of kretek exports). In 2001, more than 93% of all kretek exports went to four countries (Malaysia, Singapore, the USA, and Vietnam). The value of exports to these 4 countries contributed to 97% of total revenue from kretek export. The total export of kretek cigarettes in the year 2001 was 6,764 tons with a total value of US\$ 75 million (Table 4.13).

4.5.6 Destination and Export Value of White Cigarettes. Nearly all (86-94%) of white cigarette exports between 1998 and 2001 went to Cambodia and Thailand, the value of which comprised 81-89% of the total export value of white cigarettes exported from Indonesia. In 2001, the total export of white cigarettes was 24,344 tons contributing US\$ 97 million to the revenue (Table 4.14)

²¹ Source: Central Bureau of Statistics, 2002. Statistics of Export and Import 2001; Note : SITC (Standard International Trade Classifications)

Table 4.14.
Countries of destination of kretek cigarettes export
by quantity and export value, 2001

Country of Destination	Quantity		Value	
	'000 kg	%	'000 US\$	%
1. Malaysia	4,938	73.0	54,379	72.4
2. Singapore	765	11.3	9,570	12.7
3. Vietnam	393	5.8	5,522	7.4
4. USA	214	3.2	3,217	4.3
5. Germany	182	2.7	276	0.4
6. East Timor	60	0.9	42	0.1
7. Others	212	3.1	2,057	2.7
Total	6,764	100	75,062	100.0

Table 4.15
Sequence of countries of destination of white cigarettes export
according to quantity and export value, 2001

Country of Destination	Quantity		Value	
	'000 kg	%	'000 US\$	%
Thailand	11,688	48.0	53,200	54.8
Cambodia	9,929	40.8	31,221	32.2
Philippines	541	2.2	389	0.4
US	456	1.9	1,678	1.7
Cyprus	411	1.7	1,311	1.4
Malaysia	377	1.5	3,351	3.5
Others	941	3.9	5,852	6.0
Total	24,344	100.0	97,002	100.0

4.6. Policies of the Government of Indonesia Towards the Cigarette Industry

4.6.1. Excise Reduction for Exports Comprising 25% or More of Domestic Production. To encourage exports, the government stipulated a reduction in excise taxes for companies that export products. In the ministerial decree (Ministry of Finance No. 449/KMK.04/2002), companies that export 25% or more of domestic production (of the same type of tobacco products) receive a relief in excise tax of 4 % percentage points of the given excise tax rate, amounting to between 10 and 100% reduction in excise tax rates. According to the Excise Directorate, a reduction of 100% has never happened in practice because this applies to small manufacturers that do not export their products.

4.6.2. Value Added Tax for All Tobacco Manufacturers. Based on Decree of the Minister of Finance No 62/KMK.03/2002, 26 Februari 2002 all local and imported tobacco products are charged value added tax (PPN) of 8,4% of the HJE. This decree does not apply to groups of very small tobacco product companies. Very small companies are given PPN exemption. Based on SK Menteri Keuangan No. 552/KMK.04/2000, 22 Desember 2000, stated that particularly for very small companies, PPN of 8,4% will be collected from those with a turnover of more than Rp 360 million per year.

- 4.6.3. Counterfeiting Excise Tax Ribbons.** Types of counterfeiting include the sale of cigarettes without excise ribbon (*rokok polos*), using counterfeit excise ribbons, and purchasing excise ribbons from another company within a lower tax bracket for use.²² To intensify law enforcement, on 27 July 2001 the government has stipulated the Decision of the Director General of Customs No. KEP-44/BC/2001 regarding counterfeit excise ribbons. If one or more brands with counterfeit excise ribbons are found in a cigarette manufacturer, the entire facilities of postponement given to the manufacturer will be withdrawn.
- 4.6.4. Impact of the Tiered Excise Tax System.** As a response to the new excise scheme (see ch 5), many kretek cigarette companies buy small companies to sub-contract their production. This is due to the low excise, minimum price and overhead cost for small scale kretek cigarette companies. Although the Ministry of Finance had once prohibited this practice (decree No. 104/1997), it was officially permitted again under MoF stipulated decree No.125/1999.²³

²² The purchase of excise tax ribbons by one company within a lower tax bracket for resale to a company within a higher tax bracket is not prohibited under current policies. See Stephen Marks, July 2003. Cigarette excise taxation in Indonesia, an economic analysis. Partnership for economic growth, BAPPENAS and USAID; <http://www.pegasus.or.id/public.html>

²³ <http://www.beacukai.go.id/peraturan/bank/12599.pdf>

Chapter 5. Increasing Price and Taxes

5.1. *The Effect of Increasing Tobacco Prices on Cigarette Consumption and Government Revenue*¹

5.1.1 The Impact of an Increase in the Price of Tobacco Products. Increasing the price of tobacco products has both health and economic benefits. Price increases (via increases in taxes) will reduce cigarette consumption, but is also a way to increase government tax revenue. The World Bank concluded that a price rise of 10% would reduce global demand for tobacco products by between 4% and 8% on average.² These simulations also showed that a 10% price increase worldwide (via an increase in taxes) would prevent at least 10 million tobacco related deaths.³ Increasing the price of tobacco products, therefore, is the single most effective strategy for reducing the devastating health burden of tobacco use.

5.1.2. Reducing Consumption, Particularly for Groups Responsive to Price. Increasing the price of tobacco products limits their affordability, especially among those groups most sensitive to price: adolescents, young adults and the poor. It will also cause new persons/smokers not to start smoking habits (particularly adolescents), reduce cigarette consumption, and encourage cessation for those who are smoking already.³

5.1.3. Increase in Government Revenue. The World Bank estimates that tax increases that raise the price of cigarettes by 10% worldwide would increase government revenue by about 7% on average.³ Studies have shown that no country has ever suffered a reduction in government tax revenue by increasing cigarette taxes.⁴ The increase will reduce consumption, but by a smaller proportion relative to the price increase. With higher cigarette taxes, fewer packs are sold, but the tax paid per pack is higher, resulting in a higher total revenues, even for countries with quite high cigarette tax and prices.⁵

¹ See World Bank: Economics of Tobacco Control Website. <http://www1.worldbank.org/tobacco/>

² World Bank 1999. Curbing the epidemic: governments and the economics of tobacco control. <http://www1.worldbank.org/tobacco/reports.htm> and Bayer and Yurekli: Indonesia economic brief 2000 [http://lnweb18.worldbank.org/eap/eap.nsf/Attachments/Curbing+tobacco/\\$File/brief_6-516.pdf](http://lnweb18.worldbank.org/eap/eap.nsf/Attachments/Curbing+tobacco/$File/brief_6-516.pdf)

³ See Summary of Tobacco Control in Developing Countries. http://www1.worldbank.org/tobacco/tcdc/fact_sheets/Tobacco%20Facts1-6.pdf and Chaloupka et al. The taxation of tobacco products. In: Jha P, Chaloupka FJ, eds. Tobacco control in developing countries. New York: Oxford University Press, 2000. Using a model of cohortsmokers alive in 1995 <http://www1.worldbank.org/tobacco/tcdc/237TO272.PDF> also Chaloupka 1999. Macro-social influences: the effects of prices and tobacco –control policies on the demand for tobacco products, Nicotine & Tobacco Research (1999) 1, S105-S109; <http://tigger.uic.edu/~fjc/Presentations/Abstracts/abstractntr1999.htm>

⁴ World Bank 1999. Curbing the Epidemic, Ch 4: Measures to reduce demand. In English <http://www1.worldbank.org/tobacco/chapter4.asp> or Indonesian <http://www1.worldbank.org/tobacco/pdf/indonesian.pdf>

⁵ Warner, Kenneth E. 2000, Economics of Tobacco Control. Tobacco Control; 2000;9:78-89 <http://tc.bmjournals.com/cgi/content/full/9/1/78>

5.1.4. Application of the Ramsey Rule. Based on the Ramsey Rule for consumption taxes, goods with relatively inelastic demands should be taxed more heavily, while those with relatively elastic demands should be taxed least.⁶ International evidence demonstrates that cigarettes and other tobacco taxes satisfy the Ramsey Rule because the demand for tobacco products is inelastic in most countries. Tobacco taxes generate substantial incomes and also minimize welfare losses associated with the higher prices resulting from the taxes.⁷ Thus, increases in the taxes on tobacco products have been viewed tobacco taxes favorably by the IMF.⁸

5.2. Cigarette Prices

5.2.1. General Definitions.⁹ The suggested retail price of tobacco products or *Harga Jual Eceran (HJE)*¹⁰ and corresponding tax rates are separately determined by the excise bureau. According to the excise bureau, HJE includes production costs (*harga pokok*) and profits of the producer and retailer (as estimated by the industry); in addition to excise tax and VAT. The minimum and maximum retail sales price (*Harga Jual Eceran Minimum dan Maksimum*) are the lower and upper boundaries for the suggested retail price, which vary by industry production scale and type of cigarette. The banderol price, or *Harga Banderol*, is the HJE stick price multiplied by the number of sticks per package. If the market price at point of sale is greater than the Banderol price, the company or the importers should report to the Excise Bureau to repay the difference in excise tax.¹¹

5.2.2. Cigarette Prices in Indonesia. Based 1999 data, cigarette prices in Indonesia are relatively low compared with neighbouring countries such as Singapore, Malaysia and Thailand. As a comparison, the price of one pack of 20 cigarettes in Indonesia is approximately US\$ 0.52, in Singapore US\$ 3.08, Malaysia US\$ 0.76 and Thailand US\$ 0.73. (Graph 5.1).¹²

⁶ Ramsey, Frank P. (1927), *Economic Journal* 37:145 (March), 47-61. Available for limited time: <http://alpha.montclair.edu/~lebelp/RamseyTaxationEC1927.pdf>

⁷ See Coady and Dreze. *Commodity Taxation and Social Welfare: the generalized Ramsey Rule*. 2000 <http://sticerd.lse.ac.uk/dps/de/dedps27.pdf>

⁸ Prabhat Jha, Joy de Beyer dan Peter Heller, 1999; "Death & Taxes: Economics of Tobacco Control," *Finance & Development*, Vol. 36, No. 4 <http://www.imf.org/external/pubs/ft/fdand/1999/12/jha.htm> also Tobacco Taxes: A view from the IMF. In World Bank 1999 *Curbing the Epidemic*. <http://www1.worldbank.org/tobacco/book/pdf/09-Tobacco-Appendices.pdf>

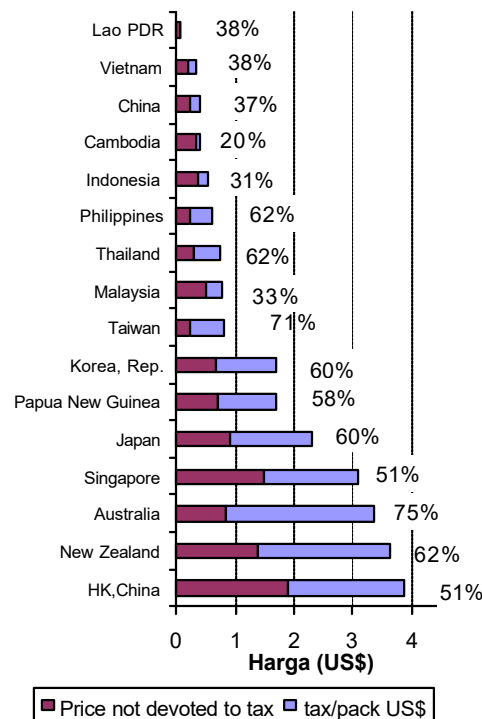
⁹ Source: www.beacukai.go.id/peraturan/bank/0400.pdf See ministerial decree, Ministry of Finance, No 89/KMK.05/2000,

¹⁰ HJE is also referred to as *Harga Dasar*

¹¹ Article 8 of the Decree of the Minister of Finance No 89/KMK.05/2000

¹² de Bayer dan Yurekli Indonesia, World Bank. *Curbing the Tobacco Epidemic; Data World Bank and IMF Data Sources* (Unpublished) 1999. See Indonesian Country Report at <http://www1.worldbank.org/tobacco/pdf/country%20briefs/Indonesia%20.pdf>

Graph 5.1
Comparison of cigarette prices and the % of retail price devoted to taxes, 1999¹²



5.2.3. Taxes as a Proportion of the Total Price. Tax as a proportion of the total cigarette price averages 31% in Indonesia, which is one of the lowest tax rates in the region next to Cambodia. In most high-income countries, taxes account for about 2/3rds of the retail price.³

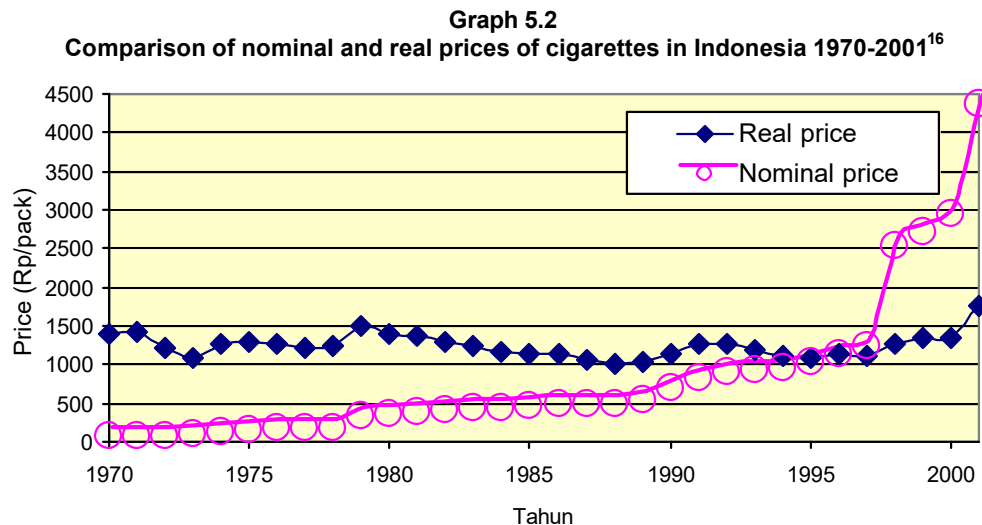
5.2.4. Affordability of Cigarettes. Estimates of the affordability of tobacco aim to overcome the difficulties of using US\$ comparisons which rely on exchange rates.¹³ One study employed the Big Mac index of cigarette affordability, which divides the (local currency) price of a Big Mac in 30 countries with the (local currency) price of a single cigarette. This study found that the number of cigarettes required to purchase a Big Mac in Indonesia was 86, the highest number in the study, compared with 59 in the Philippines, 32 in Thailand, 22 in Malaysia, 9 in Singapore, and 7 in Hong Kong.¹⁴ This implies that cigarettes are very affordable in purchasing terms relative to other countries in the region.

¹³ See Guindon et al 2002. Trends and affordability of cigarette prices: ample room for tax increases and related health gains. *Tobacco Control* 11:35-43. Guindon notes that exchange rates are influenced not only by inflation differentials, but also by interest rate differentials, current account deficit, political stability, etc. <http://tc.bmjournals.com/cgi/content/full/11/1/35>

¹⁴ Lal and Scollo 2002. Big Mac index of cigarette affordability *Tob. Control*, Sep 2002; 11: 280-b - 282 <http://tc.bmjournals.com/cgi/reprint/11/3/280-b.pdf>

A second study compared the minutes of labor required to purchase a pack of Marlboro cigarettes.¹⁵ This study found that 62 minutes of labor were required to purchase a package of Marlboro cigarettes in Indonesia, compared with 43 in Singapore, 21 in Malaysia, and 102 in India.

5.2.5. Real Price of Cigarettes. The nominal, or current, price is the given price of an good that fluctuates over time. To evaluate affordability, it is necessary to use real prices adjusted for inflation. Between 1970 and 1995, real and nominal price of cigarettes was about the same (Graph 5.2). After the economic crisis, both nominal and real cigarettes prices increased. Real cigarette prices increased at a rate higher than the rate of general inflation after 1998.



5.3. Government Revenues from Tobacco Excise Taxes

5.3.1. Tobacco Excise Tax Revenues as a Proportion of Total Government Revenue. In 1990, tobacco excise tax accounted for 4.1% of total government revenue. This proportion increased to 7.9 % in 2003. This is a consequence of the increase in government revenue targets for tobacco excise tax (Table 5.1). Because the government did not achieve their revenue targets by mid-2003, the excise tax revenue targets for tobacco products were adjusted downward from a targeted Rp 27.9 trillion in 2003 to Rp 27.7 trillion in 2004.¹⁷

¹⁵ Guindon et al 2002, estimated the minutes of labor required to purchase a package of cigarettes. This study, however, uses Marlboro prices for comparison. In Indonesia, Marlboro and other "white" cigarettes are not commonly smoked and relatively more expensive, which implies that the findings are not relevant to Indonesia where 88% of smokers smoke kretek.
<http://tc.bmjournals.com/cgi/content/full/11/1/35>

¹⁶ Djutaharta, et al. 2002. The Impact of Cigarette Tax Rate on Consumption And Government Income: Aggregat Analysis (Case of Indonesia). Demographic Insitute and World Bank

¹⁷ Sampoerna, 2003, 12th annual public expose

Table 5.1
Tobacco excise tax as a proportion of total government revenue, 1990/1991-2001¹⁸

Fiscal year	Tobacco Excise Tax (billion RP)	Total Government Revenue (billion RP)	Tobacco excise tax as a % of total government revenue
1990/1991	1713.8	42 193.0	4.1
1991/1992	1703.3	42 582.0	4.0
1992/1993	2116.4	48 862.6	4.3
1993/1994	2470.4	56 113.1	4.4
1994/1995	2647.5	66 418.0	4.0
1995/1996	3451.2	73 013.9	4.7
1996/1997	4060.5	87 603.3	4.6
1997/1998	4892.8	108 183.8	4.5
1998/1999	7459.4	152 869.5	4.9
1999/2000	10,113.3	200,643.7	5.0
2000 ¹⁹	13,768.5	205,335.5	6.7
2001	18,266.3 ^{b)}	301,077.7 ^{a)}	6.1
2002	23,084.0 ^{b)}	305,151.2 ^{a)}	7.6
2003	26,400.0 ^{c)}	336,155.5 ^{a)}	7.9

5.3.2. Government Revenue from Excise Tax. The 2003 National Budget indicated that 75% of the domestic revenue is from tax revenues. Most of tax revenues (95.1%) are derived from domestic taxes, including income tax, value added tax, and excise tax. Excise tax contributed to 8.3% of the domestic revenue in 2003, 11% of tax revenue, and 11.6% of total domestic tax revenue (Table 5.2).

Table 5.2 Excise tax as a proportion government revenue (2003)²⁰

NATIONAL BUDGET (APBN 2003)	(billion Rp)	Excise as % of domestic revenue	Excise as % of tax revenue	Excise as % of domestic tax revenue
Total government revenue	336,155.5	100.00		
1. Tax Revenue	254,140.2	75.60	100.00	
a. Domestic Taxes	241,742.4	71.91	95.12	100.00
i. Income Tax	120,924.8	35.97	47.58	50.02
ii. Value Added Tax	80,789.9	24.03	31.79	33.42
iii. Land and Building Tax	7,523.6	2.24	2.96	3.11
iv. Land and Building Transfer	2,401.7	0.71	0.95	0.99
v. Excise	27,945.6	8.31	11.00	11.56
vi. Other	2,156.8	0.64	0.85	0.89
b. International Trade Taxes	12,397.8	3.69	4.88	
2. Non-Tax Revenue	82,015.3	24.40		
a. Natural Resources	59,395.5	17.67		
b. Profit Transfer from SOEs	10,414.2	3.10		
c. Others 3)	12,205.6	3.63		

¹⁸ Data 1990-2000. Excise Bureau. Policy on Excise Extensification and Tobacco Product Excise Intensification (<http://www.beacukai.go.id/Indonesia/sispro/cukai/cukai2.htm>; a) Ministry of Finance, <http://www.fiskal.depkeu.go.id/nk2002.asp?kd=81>; b) Excise Bureau, <http://www.beacukai.go.id/statistik/cukai.asp>; c) Excise Bureau, based on order of excise ribbons

¹⁹ Fiscal years switched from an April to March basis to a calendar basis in 2000.

²⁰ <http://www.fiskal.depkeu.go.id/utama.asp?utama=10200002>

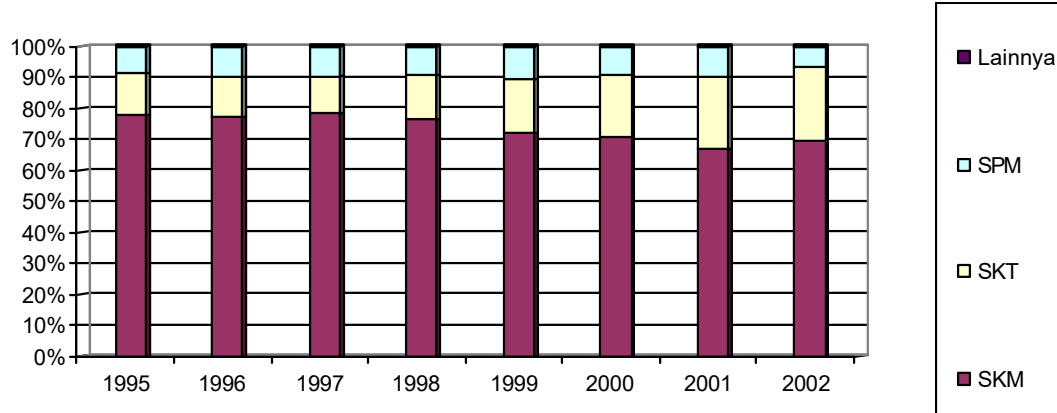
5.3.3. Tobacco Excise Tax as a Proportion of Total Excise Tax Revenue. Tobacco taxation accounted for more than 90 % of total excise tax revenue. In 2002, the tobacco tax accounted for 21,151 billion Rupiah or 91 % of the total excise revenue of 23, 352.9 billion Rupiah (Table 5.2) The remaining 10% of excise tax revenue is derived from products such as ethyl alcohol and other alcoholic beverages.

Table 5.3
Tobacco excise tax revenue (billion Rp) as a proportion of total excise revenue 1990/1991-2001²¹

Fiscal year	Tobacco excise taxes	Total revenue from excise taxes	% of tobacco tax excise as a % of total excise tax
1990/1991	1,713.8	1,799.8	95.2
1991/1992	1,703.3	1,915.0	88.9
1992/1993	2,116.4	2,241.6	94.4
1993/1994	2,470.4	2,625.8	94.1
1994/1995	2,647.5	3,153.3	84.0
1995/1996	3,451.2	3,592.7	96.1
1996/1997	4,060.5	4,262.8	95.3
1997/1998	4,892.8	5,101.2	95.9
1998/1999	7,459.4	7,973.9	93.5
1999/2000	10,113.3	10,398.0	97.3
2001	164,94.8 ^{b)}	17,600.6 ^{a)}	93.7
2002	21 150.8 ^{c)}	23 352.9 ^{a)}	90.6

5.3.4. Tobacco Excise Tax Revenue According to Type of Tobacco Product. The largest proportion of tobacco excise tax revenue is derived from machine made clove cigarettes (SKM). In 2002, machine made clove cigarettes contributed 69.4% of the total tobacco excise tax revenue, followed by handmade clove cigarettes (SKT, 23.7%) and machine made white cigarettes (SPM, 6.8%). The proportion of tobacco excise tax revenue from SKT has increased, from 13.6% of total tobacco excise tax revenue in 1995 to 23.7% in 2002 (Graph 5.3). This increase could be attributed to a favorable tax climate. Lower tax rates for handmade *kreteks* provide incentives to the industry to produce cigarettes within the lower tax bracket. In some cases, it also results in lower prices at point of sale given that tax rates comprise a large proportion of the total production cost (see Chapter 5).

²¹ Data 1990-2000. Excise Tax. Policy on the Extensification of Excise and Intensification of Tobacco Products Excise <http://www.beacukai.go.id/Indonesia/sispro/cukai/cukai2.htm>; a) Ministry of Finance ; b) Excise Tax; c) Excise Tax, based on order of excise ribbons <http://www.fiskal.depkeu.go.id/nk2002.asp?kd=81>

Graph 5.3. Tobacco excise tax revenue by type of product

5.4. How the Excise Tax for Tobacco Products is Determined

5.4.1. How the Excise Tax for Tobacco Products is determined. Tobacco products in Indonesia have been levied excise taxes since Dutch colonial rule. In 1932, the excise tax rates were the same for all types of tobacco products (20%). Since 1936, a tiered tax system for cigarettes began according to the type of products, i.e., SKT, SKM, SPM, and others. In 1969, the policy of setting a minimum price for tobacco products was determined based on the type of tobacco products and production scale.²² In 1979, the excise system was modified again based on production volume and product type, whereas firms with the highest production scales paid the highest excise taxes. Today, tobacco excise and base price is still based on they type of product and estimated sales volume as measured by total excise ribbon orders.

Table 5.4. The cigarette excise tax structure in Indonesia, 2003²³

Company Tier	Cigarettes Sold per Year (Q)	Percentage Tax Rate			Minimum HJE per Cigarette		
		SKT	SKM	SPM	SKT	SKM	SPM
Large	Q > 2 billion	22	40	40	340	400	270
Medium	500 million < Q < 2 billion	16	36	36	280	330	210
Small	Q < 500 million	8	26	26	270	320	200
Tiny	Q < 6 million	4	n/a	n/a	200	n/a	n/a

n/a: not applicable

²² Asri, Istiyastuti W. 1992. Policy on In-direct Tax Policy: Case Study on Tobacco Excise in Indonesia 1969-1992. Post Graduate Program, Social and Economic Science, and Specialized Politic Science University of Indonesia

²³ Source: Directorate General of Excise Tax, Ministry of Finance, Summarized by Stephen Marks, July 2003. Cigarette excise taxation in Indonesia, an economic analysis. Partnership for economic growth, BAPPENAS and USAID. As noted in Chapter 4, firms that export 25% of more of domestic production receive a reduction in tax rates by 4 percentage points, which amounts to between 10% and 100% reduction in excise taxes. According to the Director of the Excise Bureau, MoF, a reduction in tax rates of 100% does not occur in practice because this applies to small firms that do not export their products.

5.4.2. Change in Excise Tax on Tobacco Products. Since 1989, at least once a year, the government determines the HJE and excise tax on tobacco products.²² This adjustment of the minimum retail price and tax rate is done to achieve Ministry of Finance revenue targets from tobacco products. Excise tax revenue targets for tobacco products for 2004 **declined** from Rp 27.9 trillion in 2003 to Rp 27.4 trillion.²⁴

Table 5.5.
Change in excise tax and minimum retail price according to type of cigarettes, 1996–2002²⁵

Decree	Machine made clove cigarettes (SKM)		Handmade clove cigarettes (SKT)		Machine made white cigarettes (SPM)	
	Excise Tax (%)	Retail Price (Rp/stick)	Excise Tax (%)	Retail Price (Rp/stick)	Excise Tax (%)	Retail Price (Rp/stick)
228/KMK.05/1996	20–38	30–75	1–18	10–65	22–38	25–85
229/KMK.05/1996	20–36	30–80	2–16	20–60	20–38	25–75
91/KMK.05/1997	20–36	40–85	2–16	25–65	20–38	30–80
118/KMK.05/1998	20–36	140–225	2–16	80–150	20–38	30–125
124/KMK.05/1999	20–36	110–225	4–16	55–150	20–36	110–225
89/KMK.05/2000	28–40	120–250	12–20	65–165	28–40	70–150
453/KMK.05/2000	26–40	150–280	10–20	100–200	26–40	80–180
144/KMK.05/2001	26–40	170–305	4–20	125–230	26–40	90–195
383/KMK.04/2001	26–40	190–325	4–20	150–255	26–40	103–208
597/KMK.04/2001	20–34	270	0–14	175–225	20–34	150
121/KMK.04/2002	26–40	270	4–20	175–255	26–40	150
449/KMK.04/2002	26–40	320–400	4–22	200–340	26–40	200–270

5.4.3. Amount of Excise Tax on Tobacco Products.²⁶ The excise tax and minimum retail price of handmade clove cigarettes (SKT) are lower compared to the excise tax of machine made clove cigarettes (SKM) and machine made white cigarettes (SPM). For example, in 1996, the maximum excise tax was 38% for SKT and 18% for SPM. Then, in 1997–1999, the maximum excise tax was reduced to 36% for SKM and SPM, and 16% for SKT. Since the year 2000, the maximum excise tax became 40% for SKM and SPM, and 20% for SKT. (Table 5.5).

5.4.4. The Rationale for Increasing Tobacco Excise Taxes. In the year 2002, the Minister of Finance has three times determined the change on excise tax.²⁷ The rationale for increasing tobacco excise taxes is to achieve revenue targets. The commonly used strategy by the government to achieve the target of revenue from tobacco excise is to increase the base price and tax rates.

²⁴ Sampoerna, 2003, 12th annual public expose <http://www.indoexchange.com/jsx/hmsp/etc/0909hmsp.htm>

²⁵ Source: Directorate General of Excise Tax, Ministry of Finance

²⁶ Decree No. 11 year 1995

²⁷ See the Decree of the Minister of Finance No 121/KMK.4/2002 effective 31 January 2002, Decree of the Minister of Finance No. 449/KMK.4/2002 effective 24 October 2002, and Decree of the Minister of Finance No. 537/KMK.4/2002 effective 30 December 2002

Table 5.6.
Minimum retail price and tax rates for tobacco products, 2002²⁸

Production (stick/gram)	30-Dec-02: 537/KMK.4/2002		
	Tax (%)	Retail Price Rp/gram	
Machine Clove Cigarettes (MCS)		Minimum	Maximum
>2 Billion	40	400	Free
>500 Million ≤ 2 Billion	36	330	Free
≤ 500 Million	26	320	Free
Machine White Cigarettes (MWC)			
>2 Billion	40	250	Free
>500 Million ≤ 2 Billion	36	190	Free
≤ 500 Million	26	180	Free
Handmade Clove Cigarettes (HCC)			
> 2 Billion	22	340	Free
> 500 Million ≤ 2 Billion	16	280	Free
≤ 500 Million	8	270	Free
≤ 6 Million	4	200	220
Rhubarb Cigarettes			
> 6 Million	8	150	Free
≤ 6 Million	4	125	Free
Sliced Tobacco Leaves			
> 2 Billion	20	30	Free
> 500 Million ≤ 2 Billion	16	30	Free
> 50 Million ≤ 500 Million	8	30	Free
≤ 50 Million	4	20	Free
Cigars & Other Tobacco Products			
≤ 3 Million	20	200	Free

5.4.5. Excise Tax Rates Based on Production.²⁹ Based on the Decree of the Minister of Finance No.537/KMK.4/2002, the determined excise tax is around 4-40 % of the minimum retail price. This decree, effective since 30 December 2002, established the excise tax rates of Machine made Clove Cigarettes (SKM) and Machine made White Cigarettes (SPM) as 26-40 % depending on production. Excise tax rates for Handmade Clove Cigarettes (SMT) were lower compared with SKM –between 4-22 %. Excise tax rates are much lower (4-20%) for other tobacco products with lower levels of production and sales, such as rhubarb cigarettes, cigars, and sliced tobacco leaves (Table. 5.6).³⁰

5.4.5. Reduction in Tax Rates for Companies that Export. As noted in Chapter 4, section 4.6.2, firms that export 25% of more of domestic production receive a reduction in tax rates by 4 percentage points, which amounts to between 10% and 100% reduction in excise taxes. According to the Director of the Excise Bureau,

²⁸ Decree of the Ministry of Finance No 121/KMK.4/2002, 449/KMK.4/2002 dan 537/KMK.4/2002

Note : Decree of the Ministry of Finance on excise tariff 1999-2001 available in the attachment

²⁹ Note that production rates are determined by reported sales per annum, i.e., excise ribbon purchases.

³⁰ USDA Gain Files. 2003. Indonesia Tobacco and Products Annual 2002.
<http://www.fas.usda.gov/gainfiles/200210/145784183.pdf>

MoF, a reduction in tax rates of 100% does not occur in practice because this applies to small firms that do not export their products.

5.4.6. Impact of a Tiered Taxation System. The response to the tiered scales for tax and base price is two-fold. At the manufacturing level, the tiered rates provide an incentive for large firms to buy up or contract small firms to manufacture cigarettes and take advantage of the lower tax and pricing rates. This practice is permitted officially (see MoF SK 125/1999, in Ch 4, section 4.6.6.). At the individual level, cigarettes and other tobacco products are substitutes for one another. Increases in the prices of one type of cigarettes, for example, may lead to reductions in the consumption of that type of cigarettes that will be partially offset by increases in consumption of other types of tobacco products.

5.4.8. Law No. 11/ 1995 on Excise Taxation. Law No. 11/1995 states that excise taxes for tobacco products should not exceed 55 % of the retail sales price. The excise tax set for goods (tobacco, alcohol, and alcoholic drinks) is set at a maximum 250 % of the manufacturer sales price or 55 % of the retail price (Paragraph 5).

5.4.9. Implication of the Minimum Retail Sale Price in Practice. Whereas the price of cigarettes written on the excise ribbon for each pack is stipulated by MoF excise tax rates and minimum retail price. One informal survey found that the banderol price was as low as 74% of the price per pack at point of sale (see Attachment 1). The banderol price establishes the the minimum excise tax that must be paid. This implies that the effective tax rates at point of sale are higher than the official rates given that price at point of sale tends to be lower than the HJE.

5.4.10. Single Stick Sales. Cigarettes in Indonesia can be bought through *retail (singles) and pack*. According to Annual Report of PT. HM Sampoerna, around 30 % of the Sampoerna cigarettes total sale is through single stick sales.³¹ The implication is that those who have limited budget such as the poor and adolescents are still able to buy cigarettes. The results of an informal survey on single stick sales in 4 stalls in Jakarta and Cianjur in 2003 indicated a price range between Rp.300-700 per stick for clove cigarette. (Table 5.7)

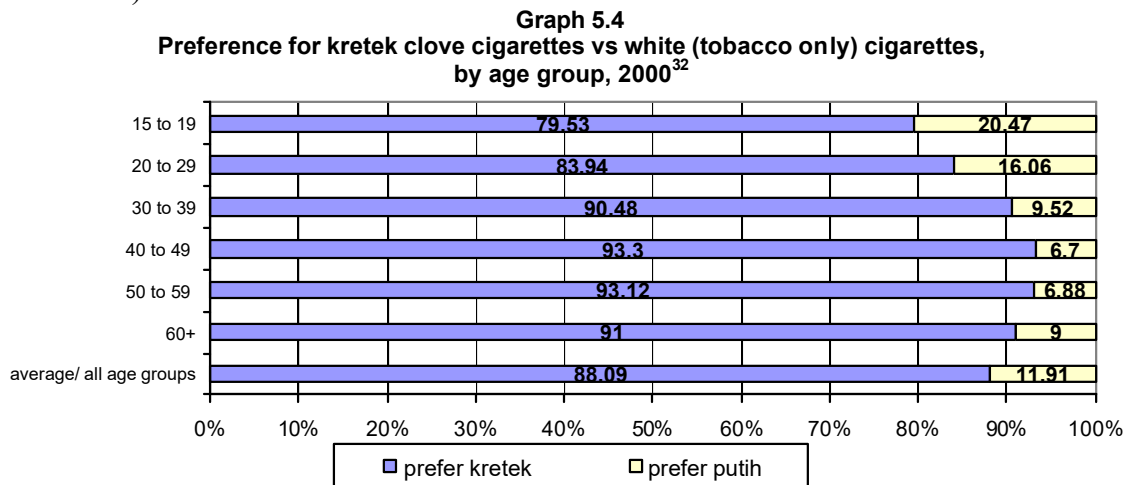
Table 5.7.
Market price of cigarettes per stick in 4 stalls in Jakarta and Cianjur, 2003

No	Company Name	Brand/ Sticks per pack	Price per Stick (Rp)			
			Stall 1	Stall 2	Stall 3	Stall 4
			Jakarta	Cianjur	Cianjur	Cianjur
1	Djarum	Djarum Super F (12)	500	-	-	-
2	Djarum	Djarum Coklat	-	-	1000/3	1000/3
3	Gudang Garam	GG Internasional F(12)	500	500	-	1000/3
6	Sampoerna	Dji Sam Soe (12)	700	600	600	500
7	Sampoerna	Sampoerna A G (12)	-	400	1000/3	400

³¹ Sampoerna First Quarter annual report 2001, 2002

5.5. Household Tobacco Expenditure and Preferences

5.5.1. Household preferences kretek cloves cigarettes vs white cigarettes. In 2000, about 88.1% of all smokers preferred kretek cigarettes, while 11.9% preferred white cigarettes. The preference for clove cigarettes is between 80-93% in all age groups, even in smokers in the 15-19 years age group (80%). Based on SUSENAS data, the smoking prevalence for 15 years and above is 31.5% (Graph 5.4).



5.5.2. Cigarette Prices and Income. According to Adioetomo et al, 2001 the price of cigarettes consumed by households varies by income levels. *The higher the smoker's household income, the higher the price of cigarettes purchased.* On average, low-income households with smokers spent Rp. 2.609 for one pack of cigarettes, while per the high income smoker's household spent Rp. 3.410 for one pack of cigarettes. (Table 5.8)

Table 5.8
The average price of cigarettes purchased by smokers' households by cigarette type and household expenditure levels, 1999³³

Cigarette type/ 16 pieces	Household income level			
	All income levels	Lowest	Average	Highest
Kretek Filter	2,944	2,844	3,272	3,410
Kretek Non Filter	2,376	2,257	3,078	3,503
White Cigarette	2,490	2,426	2,699	3,124
Average expenditure on cigarettes	2,725	2,609	3,173	3,410

5.5.3. Monthly Household Expenditure on Tobacco Products. In Susenas, tobacco expenditures are grouped into one category including expenditure on betel nut. A higher proportion of monthly household expenditures are spent on cigarettes and

³² Strauss, Beegle et al. Analysis of the IFLS, 2000

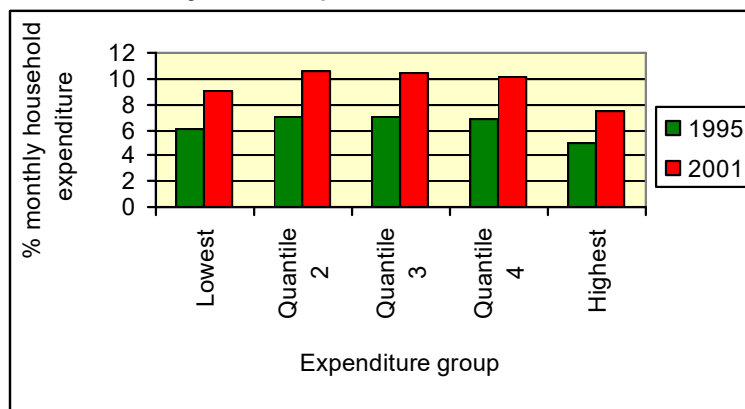
³³ Please note study

betel nut in poor households compared with rich ones. In 1995, poor households spent 6.11% of their monthly expenditures on cigarettes and betel nut, while the rich household spent 4.99%. In 2001, tobacco expenditures increased across income groups, i.e., 9.1% in poor families and 7.5% in rich families. (Table 5.9 and Graph 5.5).

Table 5.9.
Proportion of monthly household expenditure on cigarettes and betel nut,
by income groups, 1995 and 2001³⁴

Year	Household expenditure quintiles					Average % of household expenditure consumed by tobacco and betel nut
	1 (poorest)	2	3	4	5 (wealthiest)	
1995	6.11	6.99	7.09	6.85	4.99	6.41
2001	9.1	10.54	10.49	10.12	7.47	9.62

Graph 5.5.
The proportion of monthly household expenditures devoted to tobacco products,
by income quintile, 1995 and 2001



5.5.4. Income Elasticity. Income elasticity is the responsiveness of demand to changes in income. In developed countries, an increase in household income is associated with a decrease in the demand for cigarettes. In Indonesia, however, an increase in household income will increase the demand for cigarettes. Some empirical studies in Indonesia using time series data indicated that tobacco consumption increases *between 3.5% - 8.3% for a 10% income increase*. De Beyer and Yurekli (2002)³⁵ used time series data from 1980-1995 and found out that a 10% increase in income will increase cigarette consumption by 3.5 %. Djutaharta, et al. 2002 used time series data from 1970 to 2001 and demonstrated that a 10 % increase in income will increase cigarette consumption by 4.7%. Bird (1999) used time series data from 1970 to 1994 to demonstrate that a 10% increase in income would increase consumption by 8.3 % over the long term and 7 % over the short term.

³⁴ Source: Processed from raw data of Susenas 1995 and 2001

Note: Samples are households with cigarette expenditure.

³⁵ World bank 2002. <http://www1.worldbank.org/tobacco/pdf/country%20briefs/indonesia%20.pdf>

Using cross-sectional data, Adioetomo, et al. 2001 found that a 10 % increase in income would increase cigarette consumption by 7.6 % (Tabel 5.10)

5.6. Impact of Cigarette Price Increase

5.6.1. Price Elasticity. Price elasticity is the percentage change in demand divided by the percentage change in price. Several recent surveys of the economic literature about tobacco price increases have found that price elasticity of demand generally falls between -0.25 and -0.5 in developed countries, or that a 10% increase in price results in 2.5 to 5.0% reduction in consumption.³⁶ Studies in low-and middle-income countries have found similar or greater reductions in consumption ranging from 0.5 to -1.0 .³⁷ Several recent studies resulted in price elasticities of -0.54 in China,³⁸ -0.71 in Papua New Guinea,³⁹ and in Turkey, studies found price elasticity of -0.21 (short run) and -0.37 (long-run).⁴⁰ In general, these studies are consistent in finding that price elasticity for cigarettes is ranges between -0.14 and -1.23 . Most studies have concluded, however, that cigarettes are price inelastic (between -0.1 and -1.0): the percentage reduction in demand is less than the percentage price increase. In other words, consumers are not highly responsive to price increases.

5.6.2. Studies Based on Indonesian Data. Time series empirical studies in Indonesia indicated that price elasticity is between -0.35 and -0.61 ; or that a 10 % price increase will decrease cigarette consumption between 3.5 % and 6.1%. The following studies indicated similar result, which is: 10 % cigarette price increase will decrease cigarette consumption by 3.5 % according to Djutaharta, et al (2002), 5.1 % according to de Beyer and Yurekli, 4.3 for long term and 5.99 % for short term according to Bird (1999). Generally, however, studies predicting reductions in cigarette smoking and other tobacco use resulting from a price increase find that long-run reductions exceed the short-run effects.³ A cross-sectional study, Adioeteomo, et al (2001), demonstrated a 6.1 % decrease in consumption. (Tabel 5.10).

³⁶ Chaloupka and Warner 1999. The Economics and Smoking. National Bureau of Economic Research. <http://papers.nber.org/papers/W7047> and tobacco control in developing countries.

³⁷ Chaloupka et al. The taxation of tobacco products. In: Jha P, Chaloupka FJ, eds. Tobacco control in developing countries. New York: Oxford University Press, 2000. <http://www1.worldbank.org/tobacco/tcdc/237TO272.PDF>

³⁸ See T W Hu, Z Mao; <http://tc.bmijournals.com/cgi/reprint/11/2/105.pdf> and Tobacco Control 2002;11:105–108 <http://tc.bmijournals.com/cgi/reprint/6/2/136.pdf> A second myopic addiction model resulted in short run price elasticities of -0.35 and long run, -0.66 .

³⁹ Chapman and Richardson. 1990. Tobacco Excise and Declining Consumption: the case of Papua New Guinea. Amer Journal of Public Health 80: 5; 537-40. Abstract available <http://www.ajph.org/cgi/content/abstract/80/5/537>

⁴⁰ Tansel 1993. Cigarette demand, health scares, and education in Turkey. Applied economics 24(4); 521-9. Statistics available from <http://econpapers.hhs.se/paper/fthyaleqr/660.htm>

Table 5.10.
Impact of changes in income and price on cigarette consumption
(income and price elasticity)⁴¹

Author	Source of data and year	Model	Increase in consumption as a result of 10% increase in income	Decrease in consumption as a result of a 10% increase in cigarette price
De Beyer dan Yurekli 2000 ⁴²	Annual aggregate data 1980-1995. WB, Statistic Center, USDA	Log linear	3.5%	5.1%
Djutaharta, et al 2002	Annual aggregate data 1970-2001. Statistic Center, USDA, UN, Excise	Log linear; controls for 1991 health warnings on packages; 1997 economic crisis	4.7%	3.5%
Bird, K 1999	Annual aggregate data 1970-1994. WB, World tables, Statistic Center	Error correction Log linear with Miopic addiction ⁴³ ; controls for 1989-91 lift on TV advertising ban; 1980-1 mechanization of cigarette production (Gudang Garam)	3% (long-term) and 7 % (short term)	4.3% (Long Term) and 5.9% (Short Term)
Adioetomo, et al 2001	Cross sectional data National Social Economy Survey 1999	Two part model	7.6%	6.1%

5.6.3. Data by Type of Cigarettes. In making its own revenue forecasts in 2002, the Excise Directorate employed data by type of cigarette, estimating elasticities of -0.52 for SKT, -1.12 for SKM, and -0.14 for SPM.⁴³ A more recent study employed data from 1999 to 2002 resulted in own-price elasticities of -0.82, -1.37, and -2.11 for SKT, SKM, and SPM, respectively.⁴⁴

5.6.4. Increase of Government Revenue from Tobacco Tax Increase. Where the price elasticity of the demand for cigarettes is inelastic, an increase in tobacco taxes will result in a net increase in total government income.⁴⁵ *Several studies in Indonesia indicated that the impact of 10% tax increase will increase government income by 6.7 to 9 %.* (Table 5.11)

5.6.5. Increase in Tax Revenue as a % of GDP. De Bayer and Yurekli also simulated the impact of a cigarette tax increase on the increase in government revenue, expressed as a percent of GDP. Assuming no individual substitutions to cheaper

⁴¹ *) Miopic addiction adalah fungsi permintaan dimana konsumsi masa lalu ditentukan oleh konsumsi sebelumnya., dalam studi ini termasuk pendapatan masa lalu dan harga masa lalu.

⁴² See de Bayer and Yurekli, Indonesia Brief.

<http://www1.worldbank.org/tobacco/pdf/country%20briefs/Indonesia%20.pdf>

⁴³ Communication from Director of Excise, 10/2003

⁴⁴ See Stephen Marks, July 2003. Cigarette excise taxation in Indonesia, an economic analysis. Partnership for economic growth, BAPPENAS and USAID; <http://www.pegasus.or.id/public.html>

⁴⁵ See Hu 1997. Cigarette taxation in China: lessons for international experience. Tobacco Control 6: 136-40. <http://tc.bmjournals.com/cgi/reprint/6/2/136.pdf>

brands, they found that a 10% increase in tobacco tax will increase revenue by .26% of GDP. Further simulations demonstrated that a 50% and 100% increase in tobacco tax would increase revenue by .33 and .40 % of GDP, respectively.

Table 5.11.
% Increase in government tobacco tax revenue as a result of a 10%, 50% and 100% cigarette tax increase

Author	Increase in government revenue from tobacco taxes as a result of a --% tax increase		
	10%	50%	100%
De Beyer dan Yurekli 2000 ⁴²	8	36	63
Adioetomo, et al 2001	6.7	27.5	40.0
Djutaharta, et al 2000	9.0	43.3	82.1

5.7. *The Impact of Tobacco Taxes on the Poor*

5.7.1. The poor are most harmed by tobacco use itself.⁴⁶ Higher tobacco taxes can be progressive in 2 ways. First, the poor are more sensitive to price increases –and therefore gain health and financial benefits over the long term. Second, expenditure on tobacco products increases with income and high-income smokers will bear the financial burden of a tobacco tax increase.

5.7.2. Low-income people are more likely to quit or reduce consumption in response to a price increase. A reduction in tobacco use avoids long-term health damage and treatment costs from active and passive tobacco use. Smokers and their family members exposed to environmental tobacco smoke (ETS) would have positive health benefits.

5.7.3. The tax burden would be borne by higher-income smokers who spend more money on tobacco, consume more tobacco, and are less responsive to price increases. The smoking prevalence is lower among high-income adult men (58.4%) compared with low-income men (62.5%). However, expenditure on tobacco products tends to increase with income. High-income smokers buy more expensive tobacco products and larger quantities of tobacco. In 1999, the average per pack price for a high-income smoker was Rp 3,410 compared with Rp 2,609 for a low-income smoker. In addition, high-income smokers consume about 12.5 sticks per day, compared with 10 sticks per day among low-income smokers. Over the long term, tobacco taxes can benefit low-income smokers who reduce spending on tobacco (and contribute less to the tax).

5.7.4. Earmarked Taxation. Internationally, many countries earmark cigarette tax income for specific activities, including tobacco-related health promotion (Thailand, U.S., China, Australia); health care for the uninsured populations, and

⁴⁶de Beyer, Lovelace, and Yurekli. 2001 Poverty and Tobacco. Tob Control 10 <http://tc.bmijournals.com/cgi/content/full/10/3/210>

cancer research and education, or general education (Canada, Ecuador, Finland, Iceland, Korea, Malaysia, Nepal, Peru, Poland, Portugal, and others). Australia and New Zealand has used tobacco tax incomes to support sport and cultural events that used to be sponsored by the tobacco industry. China has demonstrated that any loss in social welfare can be more than compensated by the increase in tax income. A study in China illustrated that a tobacco tax increase of 25% would result in 24.58 billion Yuan additional tax income. This amount twice exceeds the loss of tobacco farmers' earnings, tobacco industry workers' earnings, and loss of industry and local government income (11.74 billion Yuan).⁴⁵ It would also save countless lives and medical care cost savings by reducing cigarette consumption by 4.54 billion packs.

Attachment 1. Survey of Retail Cigarette Prices, Assorted Brands, Central Jakarta, 23-26 May 2003 (Marks, 2003)⁴⁷

Producer	Brand	Cigarettes per Pack	Excise Tax Rate (%)	Official Retail Price (Rp per pack)	Average Market Price (Rp per pack)	Average Effective Tax Rate (%)
Hand-Rolled Kretek Cigarettes (SKT)						
Djarum	76	12	22	4800	4325	24.7
Djarum	"Coklat"	12	22	4800	4238	25.1
Gelora Djaja	Wismilak	12	16	5900	5000	18.9
Gudang Garam	"Merah"	12	22	4800	4035	26.3
Nojorono	Minak Djinggo	12	22	3400	3033	24.9
Sampoerna	Dji Sam Soe	12	22	6500	6454	22.2
Sampoerna	"Hijau"	12	22	5000	4465	24.7
Machine-Rolled Kretek Cigarettes (SKM)						
Bentoel	Mild	16	36	6500	5675	41.3
Bentoel	Sensasi Klasik	12	36	4500	4150	39.1
Djarum	Black	16	40	7700	5831	53.1
Djarum	L.A. Lights	16	40	7700	6125	50.8
Djarum	Super	12	40	5900	5288	44.7
Gelora Djaja	Wismilak	12	36	6000	5167	43.1
Gudang Garam	International	12	40	5900	5288	44.8
Gudang Garam	Professional	16	40	7700	6600	47.2
Gudang Garam	Surya	16	40	7700	6663	46.4
Lestari Putera	Star Mild	16	40	6500	5775	45.2
Nojorono	Minak Djinggo Filter	12	36	3500	3625	34.8
NTI	Clas Mild	16	26	5500	4617	31.1
Sampoerna	A - International	12	40	5900	4850	48.8
Sampoerna	A - Mild	16	40	7700	6608	46.7
Sampoerna	Dji Sam Soe Filter	12	40	5900	5408	43.7
Stevania	Brown	12	36	5000	3700	48.8
Wikatama Indah	Mustang	12	36	5000	4194	43.4
Machine-Rolled White Cigarettes (SPM)						
BAT ¹	Ardath Filter	20	40	6400	5770	44.4
BAT ¹	Lucky Strike	20	40	7800	6650	47.1
BAT ¹	Pall Mall Filter	20	40	6500	5583	46.6
Philip Morris	Long Beach Filter	20	40	6400	5313	48.3
Philip Morris	Marlboro Filter	20	40	7800	6913	45.3
RPMI ²	Dunhill Menthol	20	36	8200	7767	38.0
Sampoerna ²	S.J. Dupont	20	36	8200	6350	46.6
Rothmans	Kansas Lights Filter	20	40	5100	4100	49.8

¹ British American Tobacco ² Under license⁴⁷ See Stephen Marks, July 2003. Cigarette excise taxation in Indonesia, an economic analysis. Partnership for economic growth, BAPPENAS and USAID

Chapter 6. Public Awareness, Education, and Cessation Programs

6.1. Consumer Sovereignty and Tobacco: Knowledge of Health Risks. One argument against tobacco control is that smokers themselves make informed decisions about how to spend their own money (consumer sovereignty). This argument is based on two assumptions. The first is that a smoker makes informed choices with full knowledge of the costs and benefits of smoking. The second assumption is that the smoker alone incurs all “costs” and smoking does not affect others. There is evidence, however, that tobacco use violates both of these assumptions.¹

6.1.1. Informed choices. For Indonesians to make informed choices they require accurate information. Many Indonesians, however, do not understand well the health risks associated with smoking. One of the difficulties in communicating health risks is the delay of 20 to 25 years between the time someone starts to smoke and the onset of many diseases, such as lung cancer. But the evidence is conclusive that tobacco use kills one in two of its users and causes a broad range of severe health outcomes (see Chapter 2).

6.1.2. Industry Sponsored Research. To make an informed decision requires accurate information. One difficulty in communicating health risks is the attempts by the tobacco industry attempts to systematically refute scientific evidence about the health impact of smoking. Since the mid-1950s, evidence abounds that tobacco companies hid facts about the health hazards of smoking, fought to undermine tobacco control laws in many countries, and attempted to buy influence against tobacco control measures.² The industry strategy in refuting established scientific evidence on the health effects of smoking gives smokers reasons to justify continuing to smoke because they are addicted to tobacco.³

6.1.3. Nicotine is Highly Addictive. Even if smokers understand the health risks, very few succeed in quitting because nicotine is a highly addictive substance.

“Cigarettes are highly efficient nicotine delivery devices ... Nicotine has been shown to have effects on brain dopamine system similar to those of drugs such as heroin and cocaine”

U.K. Royal College of Physicians 2000⁴

Cigarettes and other forms of tobacco contain nicotine – a highly addictive substance. Nicotine, found in nature only in tobacco, is a powerful stimulant to the brain and central nervous system. The addictive effect of nicotine is linked to

¹ World Bank 1999. Curbing the Epidemic Chapter 3.

<http://www1.worldbank.org/tobacco/pdf/indonesian.pdf>

² Report of the Committee on Experts of Tobacco Industry Documents, July 2000; Tobacco Company Strategies to Undermine Tobacco Control at WHO.

http://tobacco.who.int/repository/stp58/who_inquiry.pdf

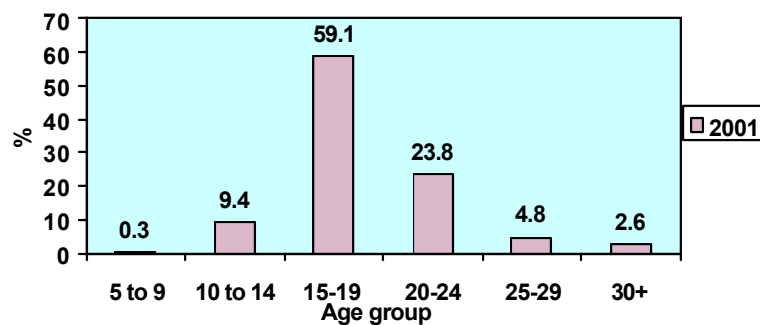
³ Glantz S et al. The cigarette Papers 1996. <http://ark.cdlib.org/ark:/13030/ft8489p25j>

⁴ Royal College of Physicians, UK. Physical and pharmacological effects of nicotine. <http://www.rcplondon.ac.uk/puibs/books/nicotine/2-physical.htm>

its capacity to trigger the release of dopamine – a chemical in the brain that is associated with the feelings of pleasure. However, in the long term, nicotine depresses the ability of the brain to experience pleasure. Thus, smokers need ever-greater amounts of nicotine to achieve the same level of satisfaction for their addition. The highly addictive nature of nicotine is clearly illustrated in the discrepancy between the number of people wanting to quit and the number of people who have successfully quit.

- 6.1.4. The majority of smokers start their habit when they are children or adolescents, and children do not always make informed choices.** About 70% of Indonesian smokers start before they are 19 years old. Children and teenagers do not have the capacity to evaluate the health risks of smoking and the highly addictive nature of nicotine. The Global Youth Tobacco Survey among Jakarta schoolchildren 13 to 15 years old demonstrated that 20.4% smoked regularly. *Among the students who reported smoking regularly, 82.7 % want to stop smoking but could not.*⁵

Graph 6.1.
Age of smoking initiation among current smokers, 2001



- 6.1.5. The second assumption behind consumer sovereignty is that the consumer/smoker alone bears all “costs” of their smoking habit.** Smokers, however, impose physical and financial costs on others. These costs include health risks to others from passive smoking, and health care costs to the society.

Health risks to others: environmental tobacco smoke (see Chapter 2). Inhaling other people’s smoke, known as passive or environmental tobacco smoke (ETS) is as harmful as active smoking. Tobacco smoke contains over 4000 chemicals, including 43 known carcinogens. ETS is carcinogenic to humans, and there is no “safe” level of exposure. Yet, over half (57%) of Indonesian households have at least one smoker and almost all smokers smoke at home (91.8%).

Nonsmokers married to smokers have an increased risk of lung cancer by 25 to 35%, and heart disease. Maternal smoking during pregnancy OR maternal

⁵ Global Youth Tobacco Survey, Jakarta 2000.
http://www.cdc.gov/tobacco/global/gyts/factsheets/2000/indonesia_jakarta_factsheet.htm

exposure to ETS at home is associated with negative birth outcomes, including low birth weight, stillbirths, and birth defects. More than 43 million Indonesian children are living with smokers and are exposed to passive or environmental tobacco smoke (ETS). The Jakarta Global Youth Survey among 13-15 year old schoolchildren reported that 83.5% of children were exposed to ETS in public places. Children exposed to passive smoke experience poor lung growth, and increased rates of bronchitis, pneumonia, and ear infections. Such early health damage may contribute to poor adult health.

In high-income countries, it is estimated that between 6 to 15% of total health care costs are attributable to tobacco use,⁶ and are thus completely avoidable. It is estimated that smoking causes 90% of lung cancer, 40% of deaths due to bladder cancer, and 30% of all cancer deaths, including larynx, oral cavity, esophagus, stomach and cervix. Between 56-80% of all chronic respiratory diseases are due to smoking; and approximately 75% of death from chronic bronchitis and emphysema due to tobacco use. Globally, smoking accounts for 22% of all cardiovascular diseases. Smoking is also associated with arteriosclerosis and hypertension. The health care costs of chronic illnesses are largely born by the public health system in Indonesia. Given that the GoI provides a large proportion of health services directly, the costs of caring for tobacco-related illnesses among smokers and their families will likely fall on the government health sector.⁷

6.2. Promoting Independent Research. Supporting scientifically sound and independent research, and systematically disseminating the findings is a key strategy in creating public awareness about the risks and costs of tobacco use.

6.2.1. Tobacco-Industry Sponsored Research. The tobacco industry also commissions its own research. A conflict of interest exists, however, because findings of research may conflict with the business interests of the tobacco industry. US researchers have reported that tobacco-industry sponsored research has been edited to omit words such as “cancer” that may have a negative impact on their business. They also report that findings that conflict with the goal of promoting tobacco use have not been disclosed to the public.⁸

6.2.2. Tobacco industry-sponsored research about the health effects of clove cigarettes. In the 1980s, several teenagers died of pulmonary failure, and these deaths were linked to smoking clove cigarettes.⁹ In response, the Specialty Tobacco Council sponsored research at the UK Huntington Research Center about

⁶ Stanley K. 1993 Disease control priorities in Developing Countries.

⁷ The basis for the 50 US State Attorney General Lawsuit against the tobacco industry and the financial settlement. See Towards health with justice, WHO 2002.
http://tobacco.who.int/repository/stp69/final_jordan_report.pdf

⁸ WHO 2002. The Tobacco Atlas; Chapter 22. <http://www5.who.int/tobacco/page.cfm?sid=84>

⁹ CDC Morbidity and Mortality Weekly: Epidemiologic Notes and Reports Illnesses Possibly Associated Smoking Clove Cigarettes; May 31, 1985 31(21): 297-9.
<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/00000549.htm>

the health impacts of kreteks.¹⁰ The Specialty Tobacco Council is an organization that represents kretek manufacturers that import kreteks into the UK. The research was funded by Djarum and Sampoerna. The study found that clove cigarettes may have a beneficial health effect. These findings directly conflicted with independent research conducted by Canadian researchers. Independent researchers have found that kreteks were at least as harmful as tobacco cigarettes if not more so. Independent studies reported that 1) kreteks contain 60-70% tobacco and therefore present all of the health risks of tobacco cigarettes; 2) eugenol in cloves may exacerbate the negative health effects (see section 2).^{11 12}

6.2.3. Tobacco industry refutes scientific evidence that conflicts with their business interests. Since the mid-1950s, an abundance of evidence has proven that tobacco companies have conducted and are still conducting activities that impede public health protection. Evidence abounds that tobacco companies have hidden facts about the health hazards of tobacco use, fought to undermine tobacco control laws in many countries, and attempted to buy influence against tobacco control measures.⁸ The best example of this is an independent investigation revealing that tobacco companies have been trying for years to subvert the tobacco control efforts of the WHO (See section 9).¹³ It is essential that tobacco control research is funded and conducted by researchers who are independent of the industry.

6.3. School Education Programs

6.3.1. Almost 70% of Indonesians start smoking when they are children or adolescents. Children who start smoking have more difficulty quitting, and are at high risk of developing tobacco-related disease in mid-life.

6.3.2. School education programs, however, are only effective if they are integrated into a comprehensive campaign.¹⁴ School health education programs need to fit within a comprehensive program that provides a supportive external environment.¹⁵

- Keeping tobacco prices high
- Enforcing comprehensive advertising and promotion bans
- Enforcing clean air laws
- Providing education about risks and costs

¹⁰ LaVoie, E. J.: Toxicity Studies on Clove Cigarette Smoke and Constituents of Clove: Determination of the LD50 of Eugenol by intratracheal Instillation in Rats and Hamsters, *Archives of Toxicology* 63:1-6, 63, 1989.

¹¹ Guidotti T. 1989 Critique of available studies on the toxicology of kretek smoke. *Archive of Toxicology* 63: 7-12.

¹² Guidotti et al 1989. Clove cigarettes: the basis for concern regarding health effects. *Western Journal of Medicine* 151 (220-228).

¹³ Report of the Committee on Experts of Tobacco Industry Documents July 2000; Tobacco Company Strategies to Undermine Tobacco Control at the World Health Organization
http://tobacco.who.int/repository/stp58/who_inquiry.pdf

¹⁴ Ling et al 2002. It is time to abandon youth access tobacco programmes; *Tobacco Control* 11: 3-6.
<http://tc.bmjournals.com/cgi/content/full/11/1/3>

¹⁵ World Conference on Tobacco or Health 2000. School and community based programs
<http://tobaccofreekids.org/campaign/global/docs/programs.pdf>

- Helping people stop smoking.

Other components within a school education program include: increasing knowledge about the harm of smoking and how to handle peer pressure, helping to understand about tobacco industry marketing practices, in addition to promoting quitting among teachers who are role models. General skills in making decisions and being assertive to resist peer pressure, advertising and poor role models are important life skills in general.

6.3.3. Community based programs aim to establish non-smoking behavior as the community norm, while involving local government and businesses. Community-based programs can be especially useful in reaching adolescents who are in school or children who do not attend school. Some characteristics of successful community based non-smoking programs include:

- *Support of community leaders in the design of the program.*
- *Tobacco control activities are integrated into other community services*
- *The aim is to establish a behavioral norm of non-tobacco use.*

6.3.4. Why does the tobacco industry sponsor school education programs? The tobacco industry views youth as an important target for expanding its market and has actively promoted tobacco use among children and adolescents. Within many parts of the world, however, the tobacco industry is promoting youth smoking prevention programs and research. It has been demonstrated that tobacco industry sponsored youth programs focus strategies and funding that are ineffective and distract time and funding from interventions that work.¹⁶

"A hallmark of all tobacco industry designed efforts is the absence of effective tools for combating youth tobacco use." Tobacco Free Kids, 2000¹⁷

6.3.5. Youth Access Programs are not Effective. Youth access programs, such as sales bans to minors, have been widely supported by the tobacco industry because they reinforce one of the industry's marketing messages that "smoking is for adults." In effect, this makes smoking more attractive to teens.¹⁸ By focusing on smoking as an adult activity, it becomes an "adult" or rebellious activity, thereby increasing its appeal.¹⁹

*"If we can frame ... action on the youth access issue...
we will be protecting our industry for decades to come."*
Philip Morris, 1995²⁰

¹⁶ WHO Western Pacific Region. The Truth about the Tobacco Industry's Youth Smoking Prevention Programmes." http://www.wpro.who.int/tfi/docs/Seeing_beneath_the_surface.pdf

¹⁷ A long history of empty promises: the cigarette companies anti-smoking programs: Tobacco Free Kids <http://tobaccofreekids.org/research/factsheets/pdf/0010.pdf>

¹⁸ WHO briefing 2003: Tobacco Industry Youth Smoking prevention programmes: a critique. <http://www.ash.org.uk/html/conduct/pdfs/yspbriefwho.pdf>

¹⁹ Ling et al 2002. It is time to abandon youth access tobacco programmes; Tobacco Control 11: 3-6. <http://tc.bmjournals.com/cgi/content/full/11/1/3>

²⁰ In WHO 2002. The Tobacco Atlas. <http://www5.who.int/tobacco/page.cfm?sid=84>

Is your youth prevention program effective?**A quick test**

- a) Does it advocate any of the following messages?
 - "Youth should not smoke."
 - "Smoking is an adult decision."
 - "Only adults should smoke."
 - "Just say no."
- b) Does it stress peer pressure without acknowledging the role of the environment, such as bans on advertising and promotion?
- c) Does it emphasize restricting youth access to tobacco products via prohibiting sales to minors and voluntary cooperation of tobacco retailers?
- d) Does it involve a "partnership" between the tobacco industry and government, educators, or non-governmental institutions?
- e) Is the tobacco industry promoting the program as a part of its "responsible marketing" policy?

If you answered "YES" to any of the above questions, then the youth smoking prevention program is likely to be ineffective. Rather than protecting youth from tobacco, it may actually encourage an increase in youth smoking.

See "The Truth about the Tobacco Industry's Youth Smoking Prevention Programmes." WHO Western Pacific Region. http://www.wpro.who.int/tfi/docs/Seeing_bneath_d_surface.pdf

6.4. Public Education Programs

6.4.1. Media Advocacy. The media is a powerful tool to influence public opinion. Helping journalists understand clearly the complexity of tobacco control efforts and health risks relative to other activities is an important part of creating public awareness. In other countries, billboards, radio, TV and newspapers have been important channels of education to the public. The goal is to change the public perception of smoking from what is "normal" and "popular" to understanding its harms and costs. It also encourages public debate.²¹

6.4.2. Counter Advertising. Paid media advertising can be an effective tool for providing a balanced view of smoking behavior to the public. A comprehensive advertising ban may be phased in. Where it takes time to enforce a complete advertising ban, counter advertising has been practiced in other countries to create a "fair information environment" that provides a balanced view of smoking.²² Such counter advertising can take the form of mandating the tobacco industry to donate equal time to tobacco control organizations for advertising (independent) anti-smoking messages to be broadcasted.

²¹ World Conference on Tobacco or Health 2000. Advertising
<http://tobaccofreekids.org/campaign/global/docs/advertising.pdf>

²² Consumer Information and Tobacco Use 2002. In Tobacco Control in Developing Countries, Oxford University Press. <http://www1.worldbank.org/tobacco/tcdc.asp>

6.4.3. Key Advocacy Groups. Gaining the support of religious leaders, public figures, health personnel, and educational role models is an essential foundation to tobacco control efforts. Physicians and teachers in particular are key groups that the public looks to as role models. In Indonesia, however, an estimated 8% of male physicians smoke.⁸

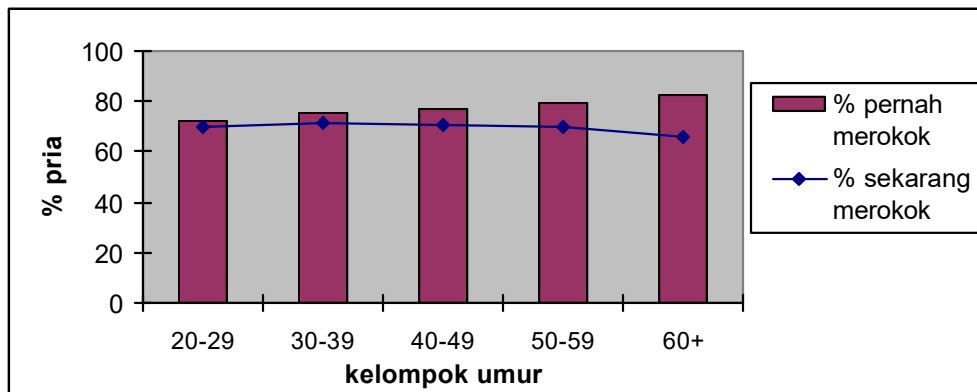
6.5. Cessation Programs

6.5.1. Tobacco use is driven by nicotine addiction. Even knowledgeable people who want to quit smoking may not be able to quit because nicotine is highly addictive. Possibly one of the strongest indicators of the effect of nicotine is the discrepancy between the desire to quit and quitting success rates. GLOBALLY the majority of smokers want to stop smoking yet the successful quit rate remains very low.²³ In Indonesia, on average, 7.7% of former male smokers have succeeded in quitting. The success rate ranges from 2,5 % among young male smokers (15 to 19 years old), compared with 19,9% among those male smokers 60 years or older.

Table 6.1
% of male smokers that succeeded in quitting, by age group, IFLS 2000

Status	Age group (year)						Average
	15-19	20-29	30-39	40-49	50-59	60+	
% Ever smoked	43,7	72,3	75,6	76,9	79,2	82,3	70,9
% Currently smoke	42,6	69,7	71,1	70,6	70,1	65,9	65,4
Difference	1,1	2,6	4,5	6,3	9,1	16,4	5,5
% that stopped smoking	2,52	3,60	5,95	8,19	11,49	19,93	7,7

Graph 6.2
% of male smokers that ever smoked and succeeded in quitting, IFLS 2000



²³ ASH UK. Nicotine and Addiction <http://www.ash.org.uk/html/cessation/thoraxpart2.pdf>

6.5.2 Global Youth Tobacco Survey (GYTS)²⁴ found out that 68% school children surveyed wanted to stop smoking, and 63% tried to stop during the year of survey. Most (80.5%) of the adolescent smokers in schools in Jakarta want to stop smoking and even more, almost all (91%) have ever tried to stop smoking. Jakarta ranges the highest level in the world (maximum value 91%) for smoking cessation effort. This proportion indicated the quite high demand to stop smoking among adolescents aged 13-15 years in Jakarta and appropriate responses are necessary (Table 6.2).

Table 6.1
Proportion of desire and effort of smoking cessation of adolescents aged 13-15 years, GYTS 2000

	Among current smokers	
	Want to stop	Tried to stop this year
Jakarta 2000	80.5	91.0
Singapore 2000	61.9	78.1
Guangdong 1999	62.5	62.6
West Bengal 2000	77.0	61.9
Bihar 2000	68.4	59.9
Buenos Aires 2000	47.1	52.5
Santiago 2000	45.0	59.0
Lima 2000	62.0	61.6
Median: all studies	68.4	63.1
Minimum	19.6	8.4
	(Manipur, India)	(Sikkim, India)
Maximum	86.9	91.0
	(Tianjin, China)	(Jakarta, Indonesia)

6.5.3. The health dangers of smoking decline immediately after smokers quit. Even one day after quitting, improvements can be seen in heart and blood pressure.

Quitting calendar⁸

<i>1 day later:</i>	<i>Improvements in heart and blood pressure</i>
<i>1 year later:</i>	<i>Excess risk of heart attack half that of a smoker</i>
<i>5-15 years later:</i>	<i>Risk of stroke reduced to that of people who never smoked</i>
<i>10 years later:</i>	<i>Risk of lung cancer reduced to half of a continuing smoker</i>
<i>15 years later:</i>	<i>Risk of heart attack reduced to that of people who never smoked if quit before any illness develops.</i>

Around 75% smokers have ever tried to stop smoking, even though the same number failed to stop or after stopping they began to smoke again. Two-third of those who wanted to stop smoking have seriously tried to stop. Researchers indicated that if a person stops smoking for *two hours* only, nicotine starts to leave the body, stopping for *six days* will decrease pulse and blood pressure which then gradually become normal, and stopping for *12 hours* will cause CO to start leaving the body. If a person have stopped smoking for *two days in a row*, the

²⁴ The Global Youth Tobacco Survey Collaborative Group, Tobacco Use among Youth: a cross country comparison. Tobacco Control 2002; 11: 252-270. Article is available at <http://tc.bmjournals.com/cgi/reprint/11/3/252.pdf>

ability to taste and inhale will become better. Having stopped for *2-12 weeks*, the blood circulation becomes better. If a person is able to continuously stop smoking for *3-9 months*, cough and respiratory disturbances start to disappear and function of the lungs will increase 10%. To stop smoking for *five years* will reduce the risk of coronary disease by 50%, and to stop smoking for *10 years*, will make the risk of coronary disease the same as those who never smoke and the risk of lung cancer reduced to around 50%.²⁵

6.5.4. The decision to quit smoking is influenced by a range of factors, including illness from smoking, sickness or death from tobacco among family or friends, the media, price of cigarettes, smoke-free environments, and also the availability of support to cessation and treatment. In the US, however, it is estimated that 95% of people who wish to stop smoking do so on their own without participating in smoking cessation programs.²⁶

6.5.5. Cessation programs for people who want to stop smoking range from hospital treatment, individual counseling, and nicotine replacement therapy (NRT). It appears that a combination of individual counseling and nicotine replacement therapy (NRT) may result in a higher number of attempts to quit smoking.⁸ There are various evidences stating that self-help manuals are effective aid-tools for smoking cessation. Because these materials can be widely diversified, this strategy may result in a quite meaningful impact on the health of the community and should be further researched. The counseling programs – simple programs as well as more intensive programs – proofed to be able to help a lot of people to stop smoking. Treatment approach to overcome nicotine addiction combined with counseling through behavioral approach make possible 20-25% smokers to keep on not smoking until one year after finishing of treatment. Even the less intensive efforts, such as a physician advising his patient to stop smoking, will result in 5-10% patients to stop to smoking.²⁷

The Drug and Food Control informed about the availability of NRT therapy in Indonesia named NiQuitin CQ starting September 2003 after the disappearance of Nicotinell from the market in 1995. The form of supply is a 7 mg, 14 mg and 21 mg adhesive tape. NRT can only be obtained by physician's prescription and can not be recommended for children aged less than 18 years unless there are other recommendations from the examining physician. The price of one treatment package depends on the extent of smoking and the set program. For heavy and medium smokers it is for 10 weeks (6 weeks @ 21mg/day, 2 weeks @ 14mg/day, 2 weeks @ 7mg/day); for light smokers it is for 8 weeks (6 weeks @ 14mg/day, 2 weeks @ 7mg/day). The price of one treatment package not including consultation cost is Rp 1,478,400.- for heavy and medium smokers and Rp 1,062,600.- for light smokers.

²⁵ Aditama, Tjandra Yoga 2003. Rokok "Quo Vadis" dalam Harian Kompas 16 Maret 2003

²⁶ Stanley 1993. Disease Control Priorities in Developing Countries. World Bank.

²⁷ US Department of Health and Human Services. Reducing Tobacco Use: A Report of the Surgeon General- Executive Summary, Atlanta, Georgia. 2000)

Chapter 7. Strategies for Supply side measures

7.1. *Why Smuggling of Tobacco Products is a Health Problem*

7.1.1. Smuggling tobacco products undermines national tobacco control policies because smuggling avoids taxation (a large part of the price), thereby keeping the price of tobacco low and encouraging consumption. Keeping prices high is an important component of national tobacco control policies. High prices make tobacco products less accessible to children and adolescents, and can prevent youth from experimenting with tobacco. Smuggling avoids taxation, which is approximately 30% of the price in Indonesia and up to 51 % of the price in Singapore.¹ National governments have a strong interest in minimizing smuggling within and between countries, because government revenues from cigarette excise tax are lost through smuggling.

7.1.2. There are four types of illicit trade in tobacco products: organized transit smuggling, bootlegging, illicit manufacturing by producing products directly for the black market; and counterfeiting products. Among the four types, transit smuggling (also called “freight smuggling,” “container smuggling,”) is the main problem and may involve organized crime.²

7.1.3. Transit smuggling generally dominates the illicit market in tobacco. Transit smuggling avoids all taxes by diverting products from the legal distribution chain to the black market. Multi-national “western” brands are popular with organized smugglers because they can be sold in many countries. Smugglers place bulk orders from manufacturers; once the shipment leaves the manufacturers, it passes through several paper transactions, which may be difficult to trace and lead to non-existent companies and cigarettes disappear into the black market.⁴

7.1.4. Bootlegging occurs when a person buys cigarettes in a low tax jurisdiction and resells them in a high tax jurisdiction. The difference in tax rates is the profit. Bootlegging, however, tends to be a small part of the smuggling problem. Tax harmonization between countries can reduce bootlegging. But bootlegging tends to be small in scale, and not a substantial part of the total illicit trade –which is dominated by transit smuggling.

7.2. *Factors that Contribute to Smuggling: Industry Compliance and Lack of Law Enforcement*

7.2.1. The tobacco industry benefits from smuggling in several ways. Smuggling enables tobacco companies to overcome entry restrictions, enter into new markets, and launch new brands. It also keeps prices low, which encourages widespread access. A number of recent criminal investigations have shed light on the tobacco

¹ World Bank 2002. <http://www1.worldbank.org/tobacco/pdf/country%20briefs/Indonesia%20.pdf>

² Tacking the illicit trade in tobacco, ASEAN inter-sessional meeting, 4-7 March 2002. http://www.ash.org.uk/html/international/html/as_smuggling.html

industry's complicity in smuggling.³ The Canadian government successfully charged several US tobacco company executives with smuggling tobacco products into Canada; in 2000, it brought a billion dollar lawsuit against RJ Reynolds for conspiring to flood the market with smuggled cigarettes, thereby keeping prices low.⁴ Several other governments (European Union, Columbia, Ecuador) have accused tobacco industries of complicity in smuggling to enter markets, undercutting prices and avoiding taxes.⁵

7.2.2. As a result of US litigation, BAT has been forced to release its own industry documents documenting industry complicity in smuggling in Asia. Publicly released internal tobacco industry documents demonstrate without doubt that tobacco industry has been involved in large-scale smuggling in Southeast Asia.⁶ BAT's own documents demonstrate that BAT controlled illegal distribution channels through intermediaries, including SUTL [Singapore United Tobacco Ltd] in Singapore.⁷

7.2.3. Experiences in other countries show that the most important determinants of smuggling are not tax and price differentials, but the presence of organized criminal networks and weak law enforcement. The tobacco industry continues to argue that prices and taxation are the causes of smuggling, and that reducing prices will solve the smuggling problem. The reality is that tax is a small part of the issue. Other more important factors include the tobacco industry's role in facilitating smuggling, existence of smuggling networks and criminal gangs, unlicensed distribution, and lax anti-smuggling laws and enforcement. In general, low penalties for smuggling cigarettes compared with other products, such as pharmaceuticals or other drugs, makes tobacco smuggling attractive. Large profits can be gained at a low risk of getting caught and convicted, and even so with lax penalties.

7.3. *The Magnitude of Smuggling in Indonesia*

7.3.1. Smuggling cigarettes into Indonesia is not considered a major problem. In 1995, an estimated 5 % of cigarettes sold in Indonesia were smuggled into the country. At 5% of domestic sales, smuggling in Indonesia is also very low compared to other countries in the region. One explanation could be that most Indonesians prefer kreteks, whereas white cigarettes dominate the international illicit trade. There does not appear to be any relationship between smuggling and tax share as a percentage of total cigarette price.

³ Towards health with justice, WHO 2002. http://tobacco.who.int/repository/stp69/final_jordan_report.pdf

⁴ World Conference on Tobacco or Health 2000: <http://tobaccofreekids.org/campaign/global/docs/smuggling.pdf>

⁵ <http://www.ftc.org/bulletin30july2002.pdf>

⁶ Tobacco free Asia: Smuggling activity in Southeast Asia [http://www.tobaccofreeasia.net/MENU4/pdf%20Files/Media%20kits%20\(pdf\)/Smuggling.pdf](http://www.tobaccofreeasia.net/MENU4/pdf%20Files/Media%20kits%20(pdf)/Smuggling.pdf)

⁷ BAT and smuggling; ASH UK <http://www.ash.org.uk/index.php?navState=&getPage=http://www.ash.org.uk/html/.smuggling/html/smugglinqbat.html>

- 7.3.2. There is no strong relationship between a country's tax rates and the level of smuggling.** Even though cigarette tax in Singapore represents 51% of the total price, Singapore has the lowest level of smuggling in the region at 2% of domestic sales. Smuggling in Cambodia, for example, accounts for 37% of domestic sales, whereas the tax share is 20% of the total price – the lowest in the region (Table 7.1).

Table 7.1.
Estimates of smuggling as a % of domestic sales,⁸ as compared to tax share¹

Country	Smuggling as % of domestic sales (1995)	Tax share as % of total cigarette price
Singapore	2%	51%
Indonesia	5%	31%
Thailand	11%	62%
Malaysia	18%	33%
Vietnam	28%	38%
China	30%	37%
Cambodia	37%	20%

- 7.3.3. Smuggling into Indonesia is not profitable because the majority of Indonesian smokers are addicted to the high nicotine content in *kreteks*; and *kretek* prices are cheaper than average cigarette prices in neighboring countries.** For comparison, the price of one pack of cigarettes (@ 20 sticks) in Indonesia is around US\$ 0.52, while in Singapore it is US\$ 3.08, Malaysia US\$ 0.76, and Thailand US\$ 0.73. Tax rates in Indonesia are also much lower than most neighboring countries, so even large tax increases would not provide an incentive for bootlegging (Graph.7.1.)

- 7.3.4. Some Samples of Smuggling Cases.** In Malaysia, however, tobacco smuggling is estimated to result in around US \$200 million in tax losses each year.⁶ Mainly kretek cigarettes are smuggled into Malaysia.⁹ Other governments in the region are also losing revenue from smuggling. In 1999, the Vietnamese government reported losing US\$ 37 million in taxes lost from cigarette smuggling.⁶ Cambodia is another “gateway” through which many smuggled cigarettes pass. One source estimated that 79% of cigarettes imported into Cambodia are re-exported or smuggled across Cambodia's borders.⁶ In 1999, 51% of Indonesia's exported cigarettes were exported to Cambodia, a proportion that dropped to 38% by 2001.¹⁰

7.4. Preventing Smuggling: Law Enforcement and Penalties, Limiting duty Free Sales, Packaging and Labeling, Licensing, Regional Cooperation

⁸ Merriman et al 2002, How big is the worldwide cigarette smuggling problem? In Tobacco Control in Developing Countries, Oxford University Press. <http://www1.worldbank.org/tobacco/tcdc.asp>

⁹ US CDC: Malaysia profile. <http://www.cdc.gov/tobacco/who/malaysia.htm>

¹⁰ USDA 2002; Indonesia Tobacco and Products Annual; <http://www.fas.usda.gov/gainfiles/200210/145784183.pdf>

- 7.4.1. Strengthening Law Enforcement and Increasing Penalties.** Cigarette smuggling thrives where it is not considered a serious crime, and law enforcement is weak. An important first step is to adopt policies that make cigarette smuggling less profitable, by considering it a serious crime with high penalties and stricter law enforcement. The potential profits gained by the tobacco industry in facilitating smuggling should be publicly recognized. Some countries, such as Germany, held mass-media campaigns to change the public's view of cigarette smuggling and encourage people not to buy smuggled tobacco products.¹¹
- 7.4.2. Limiting Duty Free Sales.** Reducing the existence and volume of duty free tobacco products minimizes the opportunities for smuggling. Duty free tobacco products can also be clearly labeled as tax exempt to distinguish them from cigarettes that are taxed.
- 7.4.3. Packaging and Labeling.** Labeling on cigarette packages can make it easy to detect smuggled packages via: prominent tax stamps under the cellophane, special labels for duty-free tobacco, and export product labels identifying the final sales destination.
- 7.4.4. Licensing.** Unlicensed manufacturers and distributors facilitate smuggling. Requiring all manufacturers, importers, exporters, wholesalers, transporters, warehouses, and retailers to have special licenses to handle tobacco products would enable monitoring the production and distribution of all tobacco products. Furthermore, revoking or suspending licenses to handle cigarettes would be a strong and enforceable penalty for smuggling.
- 7.4.5. Regional Cooperation.** Tobacco control transcends national boundaries. Regional agreements can develop cooperative policies on smuggling, prices and sales, law enforcement and regulation across the Southeast Asia region. The European Union has set a tobacco tax "floor" on for all member countries. The Framework Convention on Tobacco Control is also an important tool for regional and global cooperation in limiting smuggling and retaining government tax revenues.

7.5. Tobacco Supply and Farming

- 7.5.1. Tobacco Farming is Seasonal and Not Full Time Work.** The number of Indonesians involved in growing tobacco is equivalent to 444,500 full-time workers, which represents approximately 1.02% of the total agricultural labor force.

The tobacco industry suggests that millions of people are involved in tobacco farming, including part-time workers, family members, seasonal workers, and

¹¹ Joosens et al. 2002. Issues in the smuggling of tobacco products. In Tobacco Control in Developing Countries, Oxford University Press. <http://www1.worldbank.org/tobacco/tcdc.asp>

other laborers. Data of the Agriculture Department showed that the total number of tobacco farmers during the period 1996 – 2002 fluctuated between 400,125 – 925,912 persons or 1.0 – 2.5 % of total workers in the agriculture sector (see Chapter 1).

7.5.2. Decline in tobacco farming employment due to decrease of tobacco consumption does not happen rapidly. Evidence from industrialized countries has demonstrated that reduced tobacco consumption resulted in a gradual decline in the number of people involved in tobacco farming over generations. Declines in tobacco consumption in industrialized countries demonstrated that the change is so gradual that it creates few transitional problems. Given that any change would be gradual, the effect on tobacco farming is not immediate. In the US, tobacco farmers were not put out of work by decreasing smoking prevalence, but rather the children of tobacco farmers were less likely to go into tobacco farming than were their parents.¹² In Indonesia, such a decline generally follows the ongoing transition from agricultural to an increasing proportion of the formal workforce in industry and services sectors. During the period of 1985-2001 a natural decline of 11% occurred on the transition of workforce from the farming sector in Indonesia to the industry and service sectors. This is indicated with the increase of 7% of workforce in the industry sector and 4% in the service sector during the same period.

The reality, however, is the number of smokers are increasing. Assuming no change in prevalence, the WHO predicts that the number of smokers globally will increase from 1.1 billion (1999) to 1.8 billion by the year 2025.¹³ Thus, the immediate economic need is reducing the rapid increase in tobacco use. Reducing smoking prevalence promotes economic gains from a population that is less dependent on an addictive drug. Resources that are not spent on tobacco products are switched to other commodities that do not result in long-term health damage.

7.5.3. Indonesia is a net importer of tobacco leaf; it imports more tobacco leaf than it produces for domestic consumption. In 2000, the value of tobacco leaf exports amounted to 1.3% of total world tobacco leaf exports, worth US\$ 71 million. The value of imported tobacco leaves to Indonesia, however, was US\$ 115 million. The net export value of tobacco leaves is US\$ negative 44 million (see Chapter 3). In general, countries that are full or net importers of tobacco products are less affected by tobacco control policies compared with major producers and exporters that rely on tobacco for foreign currency. Reduced spending on imports allows for greater spending on domestic products that are not devastating and more advantageous.

¹² Warner 1998. The economics of tobacco: myths and realities. Tobacco control. www.health.usyd.edu.au/tob21c/resources/M12-1.doc

¹³ WHO 2002. The Tobacco Atlas. <http://www5.who.int/tobacco/page.cfm?sid=84>

Chapter 8. Comprehensive Ban on Advertisement, Promotion and Sponsorship

8.1. *Why Advertising, Promotion, and Sponsorship is a Public Health Issue*

8.1.1. Cigarette companies claim that that advertisements do not create new smokers, but only encourage existing smokers to keep on consuming cigarettes or change to other brand. This statement is false.¹

8.1.2. Advertisement and promotion of tobacco products and sport and cultural activities sponsored by tobacco companies are aimed to create a condition where the use of tobacco is considered to be a normal, natural and acceptable activity. This encourages children and adolescents to try smoking.²

Since 1989, the 'US Surgeon General' report summarised the impact of tobacco advertisement in increasing consumption through the following methods³

- Encourage children and adolescents to try smoking and then become permanent users
- Encourage smokers to increase tobacco consumption
- Decrease smokers' motivation to stop smoking
- Encourage ex-smokers to start smoking again
- Limit open and comprehensive discussions on the danger of smoking, due to the dependency of media on cigarette advertising revenues
- Obstruct the tobacco control effort due to the dependency of organizations receiving sponsorship from tobacco companies
- Create environments where smoking is accepted and considered to be normal, ignoring the warning on the danger of smoking to health, by installing advertisements in various places, promotion and sponsorship

8.1.3. Tobacco advertising, therefore, is a major public health issue. A comprehensive ban on advertising is an essential part of a tobacco control program to reduce youth initiation and consumption, by reinforcing non-smoking as the social norm.

¹ See Hastings G, MacFadyen L. Keep smiling no one's going to die. An analysis of internal documents from the tobacco industry's main UK advertising agencies. Centre for Tobacco Control Research, October 2000. <http://www.ctcr.strath.ac.uk/KeepSmilingReport.pdf> Analyses on the documents in tobacco companies that are published as part of the question towards the implementation of tobacco industries in UK found out that companies are in cooperation with advertisement agencies and the target are young people.

² See WB Curbing The Epidemic, pp 50-1. <http://www1.worldbank.org/tobacco/pdf/indonesian.pdf> In addition to the report on guidelines in Surgeon General, there are two researchers, each evaluating comprehensive banning and cigarette advertisement in 22 and 100 countries, summarizing the relation between the banning and the reduction of cigarette consumption.

³ US Surgeon General's Report 1989. Reducing the Health Consequences of Smoking; and Smoking and Health: A National Status Report 1990. <http://www.cdc.gov/tobacco/sgrpage.htm#1980s>

8.1.4. Tobacco advertising increases consumption among youth by creating an environment where tobacco use is positive and familiar. With 1 out of 2 of their clients dying from tobacco-related illnesses, it is crucial for the tobacco industry to continue to recruit new smokers.⁴ Cigarette advertisement, promotion and sponsorship targets adolescents by creating a false image of tobacco as something trendy and beautiful.

8.1.5. Global Youth Tobacco Survey (GYTS)⁵. GYTS is a surveillance system to look at the increased use of tobacco among children and adolescents in the world. *Globally, 73-80% adolescents participating in the survey are exposed to some kind of cigarette advertisement through various media.* The most used media for cigarette advertisement are sport activities, other adolescents' activities, and billboards (80%). In Jakarta, 92.4% adolescents see the billboard advertisements, 88.7% see the TV advertisements, and even more (92.4%) see the advertisements during sport activities and adolescents' events. On average, 11% of adolescents surveyed globally have ever been offered cigarettes by cigarette companies and in Jakarta, the percentage is actually higher, that is 13.2 % (Table 8.1).

Table 8.1.
Exposure of adolescents towards media and advertisement, GYTS 1999-2000

Cities	See any kind of advertisements on cigarettes			Possess Item with Cigarette Brand Logo	Ever been Offered Cigarettes by Cigarette Companies
	On Billboards	In Newspapers	In Sport Arena and other Activities		
Jakarta 2000	92.4	88.7	93.9	8.4	13.2
Singapore 2000	NA	NA	48.2	NA	NA
Guangdong 2000	75.7	48.6	71.5	18.9	5.3
West Bengal 2000	90.5	58.5	90.2	8.2	6.2
Bihar 2000	98.6	96.6	99.0	1.1	0.6
Buenos Aires 2000	90.1	89.1	84.1	17.3	8.8
Santiago 2000	88.8	81.0	80.6	11.5	7.4
Lima 2000	78.3	84.7	87.0	13.8	9.4
Median:					
All studies	78.3	73.0	79.7	16.7	10.6
Minimum	47.2 (Montserrat)	30.4 (Montserrat)	33.6 (Montserrat)	1.1 (Bihar, India)	0.6 (Bihar, India)
Maximum	98.6 (Bihar, India)	96.6 (Bihar, India)	100.0 (Costa Rica)	34.6 (South West Bank)	48.9 (Poland)

NA: not asked.

8.1.6. Directing Target to Adolescents. Because 70% of smokers in Indonesia initiated their smoking habit before they are 19 years of age, the cigarette industries aggressively target adolescents, directly as well as indirectly.

⁴ Tobacco Free Kids 2001. How do you sell death?
<http://www.tobaccofreekids.org/campaign/global/FCTCreport2.pdf>

⁵ Since 1999, this activity has been globally implemented on school children aged 13-15 year in 75 locations in 43 countries, supported by WHO and CDC Atlanta. GYTS questionnaire and examples at http://www.cdc.gov/tobacco/global/GYTS/questionnaire/GYTS_samplequestionnaires.htm

....An advertisement campaign launched by BENTOEL cigarette company for its new product named "Bentoel Teen", presenting a group of adolescents (male and female students) riding a motorcycle and smoking Bentoel Teen and the theme is 'Indonesian adolescents choice 1987'⁶

8.2. Direct Marketing through Advertisement in Electronic and Printed Media

"Tobacco industries in Indonesia have an almost absolute freedom to advertise their products in any form and through almost all communication channels"

(Sampoerna Annual Report 1995).⁷

8.2.1. Before 1990, Indonesia banned all TV advertisements. Since this TV advertising ban was lifted in 1990, almost no restriction exists on tobacco advertising in Indonesia. Only daytime TV tobacco advertising is prohibited from 5 AM to 9.30 PM in the existing legislation (PP 19/2003).

8.2.2. Regulation on banning of cigarette advertisements as mentioned in PP 19/2000 is interpreted as conflicting with an existing law on Broadcasting. The UU for Broadcasting in reality does not mention about the broadcasting time of cigarette advertisement, only bans cigarette advertisement from showing the shape of cigarettes.

8.2.3. In 1996, the profit of cigarette advertisements in outdoor media was 6.9% of the total income of advertisement.⁸ It is estimated that this figure has increased because billboards are one of the means used by districts to increase local revenues.

8.2.4. Print or electronic media that rely on tobacco company revenues may be reluctant to promote tobacco control messages for fear of loss of revenue. This creates a major imbalance in the availability of accurate information for consumers.

8.2.5. In Indonesia, cigarette advertisements is only a part of TV income or around 7% of income from the main kind of TV advertisement in mid 2002. As a comparison, income from cleaning material/cosmetics is 4 times bigger than tobacco advertisement (Table 8.2).

⁶ P.T. BAT Indonesia, and Singapore Tobacco Company (PTE) LTD - June and July 1988 BAT 700324813 - 818 and 700324842 - 847. (Excerpts from a corporate status report on Asia.)
<http://www.globalink.org/tobacco/docs/secretdocs/batco1.shtml>

⁷ Contact electronic report: <http://www.indoexchange.com/jsx/hmsp/profile/1995/samp014.html>

⁸ Catherine Reynolds 1999. Tobacco advertising in Indonesia: "the defining characteristics for success" Tobacco Control 8:85-88 <http://tc.bmjournals.com/cgi/content/full/8/1/85> .

Table 8.2
Income from TV advertisement in Indonesia, January-June 2002 (AC Nielson)

	Rp billion	%
Cleaning material/cosmetics	821	27%
Drinks	444	14%
Medicines	407	13%
Food	368	12%
Household products	304	10%
Services: all	254	8%
Cigarettes	207	7%
Household appliances	153	5%
Automotive	131	4%
Total: main category	3089	100%

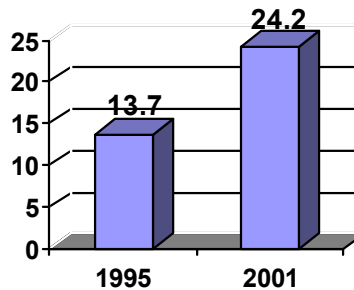
8.3. *Indirect Advertisements: Sponsorship, Promotion, Free Samples, Paid Advertisements in Films*

*"Today's teenager is tomorrow's potential regular customer ...
The smoking patterns of teenagers are particularly important to Philip Morris."*

(Philip Morris Report, 1981)

8.3.1. Sponsorship. All large tobacco companies in Indonesia are sponsoring sport activities, adolescent activities and musical concert, creating an environment to promote consumption of tobacco products as part of the social norm especially to children and adolescents.⁹ Thus, Indonesian children are very much influenced by advertisements that associate tobacco use with success and happiness. Rapid increase in tobacco consumption among youth occurred between 1995 and 2001 (Graph 8.1).

**Graph 8.1 Percentage of smoking Indonesian males aged 15-19 years
1995 and 2001**



⁹ www.fda.gov/opacom/campaigns/tobacco

8.3.2. Free Samples, discount coupons and sale of stick cigarettes. Distribution of free samples, discount coupons and sale of cigarette sticks encourage adolescents to try tobacco products, with no complete information on the danger of tobacco products causing addiction. Distribution of free samples of tobacco products was banned in the existing regulation (PP 19/2003), but discount coupons are frequently distributed. Additionally, cigarettes are also sold per stick, thus increasing access for adolescents.

8.3.3 Commercial Advertisements in Films. In the United Kingdom and the United States of America, cigarette advertisements were banned on television in 1965 and 1971, respectively. Cigarette advertisements then changed used sponsorship for sport activities or indirect advertisements such as paying film actors to smoke in famous films. During the 1990s, 9 of 10 Hollywood films dramatised the use of tobacco. Stories using charismatic actors are effective to attract new smokers, especially among adolescents and young adults.^{10 and 11}

8.4. *Partial Banning of Advertisement is not Effective*

8.4.1. A study across 102 countries showed that partial bans of cigarette product advertisements has a small effect or even does not affect the tobacco consumption at all.¹²

8.4.2. While comprehensive banning towards advertisements does affect in reducing consumption, limited banning has a very small or even no effect at all. The entry into force of limited banning towards certain type of advertisement media will only be used by the cigarette company as space to conduct promotion in another way.

8.5. *Comprehensive Banning of Advertisement does not Violate Free Speech*

8.5.1. The tobacco industry claims that comprehensive banning of advertisement violates their right to promote their products. . This claim is false because tobacco is an addictive and harmful product, places an enormous burden on the health care system due to tobacco-related illnesses and death, advertisements reach youth who are not able to make rationale decisions, and also harms other people in addition to smokers.

¹⁰ University of San Francisco Medical Center. Smoke Free Movies:
<http://www.smokefreemovies.ucsf.edu/problem/moviesell.html>

¹¹ In Fact. Tobacco Marketing to Young People. <http://www.ibiblio.org/boutell/infact/youth.html>

¹² Saffer and Chaloupka 1999. Tobacco Advertising: Economic Theory and International Evidence. National Bureau of Economic Research. <http://papers.nber.org/papers/w6958>. See also World Bank 2002. Tobacco Control in Developing Countries. Chapter 9. Tobacco Advertising and Promotion. <http://www1.worldbank.org/tobacco/tcdc.asp>

- 8.5.2. Tobacco is an Addictive Substance.**¹³ Governments have a role in restricting the advertising and promotion of addictive substances to its citizens. Governments recognize that tobacco is uniquely dangerous and cannot be treated like a normal product because it is the only substance which is both extremely harmful and powerfully addictive when used as intended by its manufacturers, while remaining legal and in widespread use.¹⁴
- 8.5.3. Tobacco Kills Half of Its Users.**¹⁵ Tobacco kills half of its users. Many individuals still do not have full information on the consequences of smoking over the long term, nor do they know how hard it will be to stop unless they have already tried. Governments have the responsibility to inform its citizens that tobacco use is addictive and kills. The government must balance the aggressive marketing campaigns held by the tobacco companies, who must constantly recruit new and young users to remain in business.¹
- 8.5.4. Tobacco Advertisement Marketed to Children**¹ Numerous studies have demonstrated that the tobacco industry aggressively markets to children. This is especially true in Indonesia, where nearly 70% of smokers start when they are children or adolescents and the age at uptake is declining (see Ch 1). The government has a responsibility in promoting healthy environments for children, to ensure that those children do not make choices about beginning a lifelong tobacco habit that has a 50% chance of killing them.
- 8.5.5. Tobacco use endangers those who are not smoking.**¹⁶ In Indonesia, more than 43 million children are exposed to passive cigarette smoke at home. These children are at risk of poor health outcomes associated with exposure to environmental tobacco smoke, including poor lung development, increased bronchitis level, pneumonia, and ear infection.¹⁷ Such early health damage contributes to poor health in adulthood (see Chapter 2). Due to the weak clean air law in Indonesia, continuous tobacco advertisement will have a very strong negative impact to non-smokers.

¹³ Royal College of Physicians 2000. Nicotine Addiction
<http://www.rcplondon.ac.uk/pubs/books/nicotine/index.htm>

¹⁴ Resolution # 7. World Conference on Tobacco or Health. 2000.

¹⁵ WHO 2002. The Tobacco Atlas. <http://www5.who.int/tobacco/page.cfm?sid=84>

¹⁶ For summary, see WHO Secondhand Smoke
http://www.who.int/tobacco/health_impact/secondhand_smoke/en/ and Tobacco Free Kids: Health Harms from Secondhand Tobacco Smoke.
<http://tobaccofreekids.com/research/factsheets/pdf/0103.pdf>

¹⁷ WHO 2003. Comprehensive Reports on Passive Smoking by Authoritative Scientific Bodies.
http://www.who.int/tobacco/health_impact/reports/en/

Chapter 9. Clean air laws; Tobacco Industry Marketing to Children and Adolescents, Packaging and Labeling, Health Warnings, and Litigation

9.1. Clean air laws

9.1.1. Restrictions on smoking in public places prevent non-smokers from being exposed to health and environmental hazards of passive smoke, whether in private workplaces, office buildings, restaurants, public transport, elevators, health care facilities, places of worship and recreation, shopping malls, retail stores and other places where people gather indoors.

Most of Indonesian adults and adolescents (68.5 %) do not smoke.¹ Clear air laws protect non-smokers or passive smokers from the danger of environmental tobacco smoke (ETS), which is carcinogenic to humans. Pregnant women exposed to ETS have higher rates of low birth weight and negative birth outcomes. Infants and young children exposed to ETS have increased rates of bronchitis, pneumonia, ear infections; and a reduced rate of lung growth; non-smoking adults regularly exposed to ETS have higher rates of lung and other cancers. (See section 2.2).²⁻³

9.1.2. In the U.S., bans on smoking in public places, including nightclubs, have had no adverse effect on local patronage and business. Studies about hotel and tourism revenues in areas that passed indoor smoking bans have demonstrated no effect on business revenues.⁴ On the contrary, several U.S. studies found that smoking restrictions increased business and employment in service industries.⁵

9.1.3. Prohibition of smoking in work places is very effective in 1) reducing exposure of non-smokers towards environmental tobacco smoke, and 2) decreasing cigarette consumption among smokers. Research has conclusively demonstrated that banning or severely restricting smoking in the workplace pays economic dividends. It has prevented lawsuits from non-smokers exposed to passive smoke and reduced other costs as well, including cleaning and maintenance of equipment and facilities, the risk of fires, worker absenteeism, and property damage. Furthermore, employees consume fewer cigarettes, are more likely to consider quitting, and quit at a higher rate than employees in workplaces with weak policies. The U.S. government estimated that each smoker cost their employers between US\$ 2000 and 5000 annually in increased health insurance premiums, absenteeism, lost productivity, and property damage.

¹ See chapter 1, data of 2001.

² US National Institutes of Health 2002. National Cancer Institute. Smoking and Tobacco Control Monograph #10: Health effects of exposure to Environmental Tobacco Smoke; <http://cancercontrol.cancer.gov/tcrb/monographs/10/>

³ The World Conference on Tobacco or Health 2000. Environmental Tobacco Smoke <http://tobaccofreekids.org/campaign/global/docs/ets.pdf>

⁴ WHO 2002. Tobacco Atlas Chapter 11. <http://www5.who.int/tobacco/page.cfm?sid=84>

⁵ Scollo et al 2003. Review of the quality of studies on the economic effects of smoke-free policies on the hospitality industry, Tobacco Control 13(20); <http://www.tobaccoscams.ucsf.edu/pdf/ScolloTC.pdf>

9.1.4. Tobacco smoke contains 3000-4000 chemical substances, including among others 60 carcinogenic substances.⁶⁻³ Some public places separate smokers from non-smokers, but this does not protect non-smokers from the carcinogenic effects of people smoking in the same room. Even the most modern ventilation technology is unable to remove dangerous poison in environmental tobacco smoke from the air.⁷

9.2. Restricting tobacco industry sales and promotion to youth

9.2.1. The earlier someone starts to smoke, the more likely he will maintain the habit throughout life. The average age Indonesians start to smoke has declined from 18.8 years (1995) to 18.3 years (2001). The tobacco industry views youth as an important target for expanding its market and has actively promoted tobacco use among children and adolescents. In its corporate status report for Indonesia, BAT discusses a 1987 BENTOEL advertising campaigns specifically targeted at youth:

*...An advertisement campaign launched by BENTOEL kretek cigarette company for its new product named "Bentoel Teen" described a group of adolescents (male and female school children) riding a motorcycle while smoking Bentoel Teen with the theme: "Choice of Indonesian Teens 1987"*⁸

9.2.2. Restrictions on tobacco industry promotion and sales of tobacco products to children and youth are particularly important because of the addictive nature of nicotine, and the inability of youth to comprehend long-term risks. Restrictions on tobacco industry sales and promotion of tobacco products to children include: a) banning single stick sales, b) banning free and discount coupons for tobacco products to minors, and c) a comprehensive ban on sponsorship of youth events, d) comprehensive ban on all electronic and print media.

9.2.3. Banning Single Cigarette Stick Sales. Selling cigarettes by the stick makes them affordable and accessible to children and youth. The Ministry of Finance established the minimum price for a single stick as low as Rp 125 for a *klobot* and Rp 400 for a *SKM* (sigarete kretek mesin, large manufacturers).⁹

⁶ US National Institutes of Health 2002. National Cancer Institute Fact Sheet: Environmental Tobacco Smoke 2000; http://cis.nci.nih.gov/fact/3_9.htm

⁷ US National Center for Tobacco Free Kids 2001; Ventilation Technology does not Protect People From Second-Hand Tobacco Smoke; <http://tobaccofreekids.org/research/factsheets/pdf/0145.pdf>

⁸ P.T. BAT Indonesia, and Singapore Tobacco Company (PTE) LTD - June and July 1988 BAT 700324813-818 and 700324842-847. KS prepared the Indonesia report, CFC the Singapore. (Excerpts from a corporate status report on Asia.) <http://www.globalink.org/tobacco/docs/secretdocs/batco1.shtml>

⁹ USDA GAIN Report. Indonesia Tobacco and Tobacco Products: New Cigarette Excise and Minimum Retail Prices 2002. Decree of the Minister of Finance No. 449/KMK.04/2002 <http://www.fas.usda.gov/gainfiles/200211/145784579.pdf>

An informal survey of *warungs* found that the street price of a single stick ranged from Rp 300 – Rp 700,-. The tobacco industry actively promotes single stick sales; in their 2002 first quarter report, Sampoerna states that single stick sales account for 30% of their total sales.¹⁰ Enforcement of a ban on single stick sales requires strict penalties for the manufacturer, high fines for vendors who do not comply, and overall community commitment to tobacco control and the protection of youth.

9.2.4. Prohibiting distribution of discount coupons or free cigarettes to minors.

Providing discount coupons for tobacco products is one way for the tobacco industry to avoid breaking the law that prohibits the distribution of free tobacco products. Distributing discount coupons to minors at public events encourages children to experiment with tobacco, a highly addictive drug and an expensive life-long habit

9.2.5. Comprehensive ban on tobacco sponsorship of youth events.

Tobacco sponsorship of concerts and events for youth aims to create an environment where tobacco use and advertisement is a “normal” part of society. All major tobacco companies in Indonesia sponsor sporting and youth events. Djarum sponsors jazz concerts, badminton and boxing, and music concerts. BAT Indonesia sponsors badminton, and car and motorbike racing. Sampoerna sponsors basketball and soccer competitions, and pop concerts. Rothman sponsors soccer competitions. Tobacco company sponsorship of movies, concerts, and sports events creates an environment that promotes consumption of tobacco products as a part of social norms, particularly among children and adolescents.¹¹

9.2.6. Comprehensive Advertising Ban.

Advertising, promotion, and sponsorship of tobacco targets youth by creating a false image of tobacco as fashionable and beautiful (see Section 8). Partial or limited bans on advertising tobacco products have little or no effect because the tobacco industry seeks alternative ways of advertising to youth, such as paid advertisements in movies and films.¹²

9.2.7. Sales Ban to Minors.

Age restrictions at the point of cigarette sale have not been shown to be highly effective. The enforcement of such a sales ban can be costly, and has not been demonstrated to have an effect on youth access to cigarettes and smoking prevalence.¹³ Many children have access to cigarettes at home. Furthermore youth access programs have been widely supported by the tobacco industry, because they reinforce one of the industry's marketing messages that “smoking is for adults.” In effect, this makes smoking more attractive to teens.¹⁴

¹⁰ Indoexchange.com; PT Hanjaya Mandala Sampoerna First quarter company update 2002.

<http://www.indoexchange.com/jsx/hmsp/etc/1qtr02-company-update.pdf>

¹¹ Catherine Reynolds 1999. Tobacco advertising in Indonesia: “the defining characteristics for success” Tobacco Control 8:85-88 <http://tc.bmjournals.com/cgi/content/full/8/1/85>

¹² Smoke-Free Movies, UCSF: http://www.smokefreemovies.ucsf.edu/pdf/sfm_facts.pdf

¹³ Rigotti et al 1997 NEJM 337:1044-1051. The effect of enforcing tobacco law sales on adolescent access to tobacco smoking and behavior. <http://content.nejm.org/cgi/content/full/337/15/1044>

¹⁴ WHO briefing 2003: Tobacco Industry Youth Smoking Prevention Programmes: a critique. <http://www.ash.org.uk/html/conduct/pdfs/yspbriefwho.pdf>

By focusing on the message that smoking is an adult activity, smoking means “mature” or as a rebellious activity, thus increases its attraction.¹⁵

9.3. *Packaging and Labeling.*

9.3.1. Limited space for labeling of tobacco products accomodates two competing interests: a) to promote brand and company statement; b) to provide space for health warning, consumer information, and for excise ribbon. Without government regulation on the size and type of health warning and information for consumer, the tobacco industry prefers to minimalize the space for health warning and messages for consumer, so that more space is available for product promotion.

9.3.2. Prohibition of Misleading *product claims*. Misleading descriptions could include words, graphics, or pictures that create a false or erroneous impression. Misleading claims aim to disguise the health hazards associated with tobacco, or may be easily misunderstood by the consumer.

9.3.3. Prohibiting the Words “mild” and “low.” Branding with the words “light” and “low” is a marketing technique of the tobacco industry which aims to convince smokers that they are using less dangerous products. At present, the existing standard to measure the level of tar and nicotine is based on the standard of the cigarette industry and does not reflect the impact on health.

Cigarette ratings for tar, nicotine and carbon monoxide are currently determined by machine testing adopted and promoted by the tobacco industry in 1967 (ISO standards).¹⁶ These methods for rating tar, nicotine, and carbon monoxide levels do not actually predict actual intake or health impact. Machine measurements do not reflect changes in human behavior. Typically low tar cigarettes have lower levels of nicotine. People smoke to obtain a level of nicotine that satisfies their addiction. Switching to cigarettes with low tar and nicotine measurements means that people smoke (and buy) more cigarettes to achieve the desired level of nicotine that satisfies the addition.¹⁷

The result is higher cigarette sales. Furthermore, the consumer is misled to believe that the health effects are less harmful. The WHO Scientific Advisory Committee on Tobacco (SACTOB) recommends banning the terms: light, ultra-

¹⁵ Ling et al 2002. It is time to abandon youth access tobacco programmes; Tobacco Control 11: 3-6.
<http://tc.bmjournals.com/cgi/content/full/11/1/3>

¹⁶ US Federal Trade Commission. Up in Smoke: The truth about tar and nicotine ratings; and The 2000 report on Tar and Nicotine Ratings. <http://www.ftc.gov/bcp/menu-tobac.htm>

¹⁷ US National Cancer Institute 2001. Monograph 13: Risks Associated with Smoking Cigarettes with Low Tar Machine-Measured Yields of Tar and Nicotine
<http://cancercontrol.cancer.gov/tcrb/monographs/13/index.html>

light, mild, and low tar, in addition to other names, trademarks, and imagery that give an impression of a health benefit.¹⁸

9.3.4. Regulation and Disclosure on Emission (Tobacco Smoke). Up to 1400 natural and synthetic additives are included in tobacco products. While many are safe in food, the potential negative health effects of being inhaled are not known for most of the additives. The WHO recommends governments to require that tobacco manufacturers regularly disclose all ingredients in tobacco, paper, or filters and a representative set of important emissions by brand.¹⁹

9.3.5. For each additive, the WHO recommends that the tobacco industry provide empirical evidence that the additive does not contribute further harmful health effects, and the purpose for including the additive. Regulatory agencies should have the authority to prohibit the inclusion of any additive and require that it be omitted from the product until the industry proves without doubt that no extra harm results when inhaled.

The burden of proof should therefore rely on the tobacco industry to demonstrate that its products result in no extra harm to the consumers. The regulatory agency thus requires the authority to challenge the inclusion of any additive and require that it be omitted from until the manufacturer has demonstrated without a reasonable doubt that no extra harm to the public arises as a direct or indirect result of a given additive, or the additive is associated with any behavioral change. Some additives, such as ammonia, are added by cigarette manufactures because it increases nicotine absorption and addictiveness. The WHO recommends, therefore, that the purpose of a given additive be also disclosed to regulatory agencies.²⁰

9.4. Health Warnings

9.4.1. Health warnings on cigarette packs, other tobacco products and cigarette advertisements assist in providing information to consumers on the negative effect of the use of tobacco on health. The effectiveness of the health warning depends on the size of message, colour, the form of characters and pictures, and also whether the message is always the same or changes.

The existing regulation in Indonesia does not determine the minimum size for the health warning sign, colour or the ease to be read. The message size in outdoor media (billboards) tends to be very small, and the characters are difficult to read. The health warning is only for cigarettes and not for other tobacco products.

¹⁸ WHO SACTOB 2002. Conclusions and recommendations on health claims derived from ISO/FTC method to measuring cigarette yield; <http://www5.who.int/tobacco/page.cfm?sid=82>

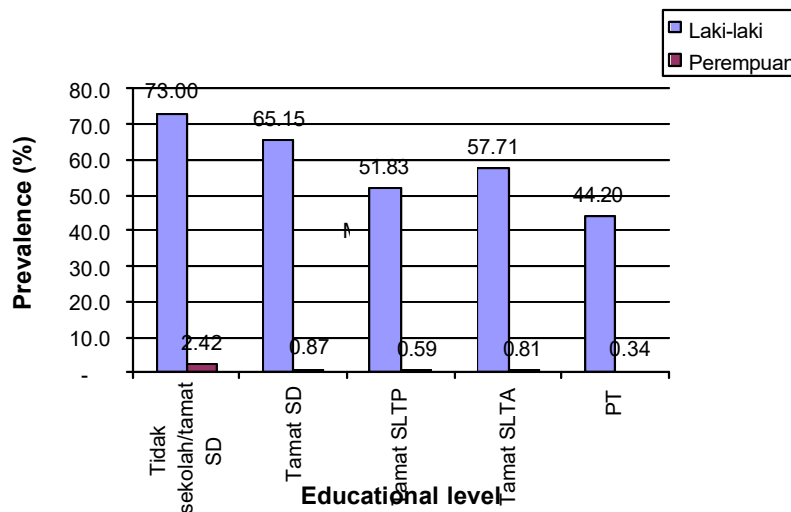
¹⁹ WHO 2000. Advancing knowledge on regulating tobacco products.
<http://www5.who.int/tobacco/page.cfm?tid=96>

²⁰ WHO 2002. The Tobacco Atlas. <http://www5.who.int/tobacco/page.cfm?sid=84>

9.4.2. Health warnings should be strong, because most smokers consider the health risk related to tobacco use as unimportant. The existing Indonesian regulation authorizes only one message for use. The population, therefore, become used to the same message every time for all brands of cigarettes, and the meaning of the message has lost its impact.

9.4.3. In communities with low formal education, smokers may not fully understand the health warnings, thus the inclusion of pictures will be more effective. Even though the literacy rate of Indonesian population is quite high, a lot of people do not have formal education. Groups with lower education levels have a higher prevalence of smoking. Data indicated that males with no formal education or less than a primary education have the highest smoking prevalence (73.0%) compared to those with university background (44.2%). The tendency of decreased smoking prevalence is consistent with the increased education.

Graph 9.1. Smoking prevalence by educational levels, males and females, 2001



9.5. Tobacco Industry Conduct and Litigation²¹⁻²²

“..who are these persons who knowingly and secretly decide to put the buying public at risk solely for the purpose of making profits and who believe that illness and death of consumers is an appropriate cost of their own prosperity!”²³

²¹ The World Conference on Tobacco or Health 2000; Litigation

<http://tobaccofreekids.org/campaign/global/docs/litigation.pdf>

http://www5.who.int/tobacco/repository/stp69/final_jordan_report.pdf

²² WHO 2002. Towards Health with Justice: Litigation and public inquiries as tools for tobacco control. http://www5.who.int/tobacco/repository/stp69/final_jordan_report.pdf

²³ ibid. From lawsuit: Haines v. Liggett Group, Inc., 140 F.R.D. 681, 683 (D.N.J. 1992); Haines v. Liggett Group, Inc., 975 F.2d 81 (3rd Cir. 1992).

- 9.5.1. Since mid 1950s, a lot of evidence indicated that the tobacco industry has already and is still conducting activities to prevent protection of community health.** Evidence abounds that tobacco companies have hidden facts about the health hazards of smoking, fought to undermine tobacco control laws in many countries, and attempted to buy influence against tobacco control measures.

The best example of this is an independent investigation of tobacco industry documents revealing that tobacco companies have been trying for many years to subvert the tobacco control efforts of the WHO.²⁴ The strategies have been elaborate and well financed, and have aimed to discredit and impede WHO, reduce WHO's budget, pit other UN agencies against WHO, and distort the results of scientific work about health impact of tobacco. These alarming findings suggest that the tobacco industry continues to impede tobacco control efforts at each step and at every opportunity.

- 9.5.2. Litigation.** Litigation started to interest the tobacco control supporters due to the size and recent success of prosecution to tobacco industries in the US. The success of the law struggle in the US indicates the importance of focusing on the tobacco industry conduct.

Links between disease and smoking have been known since the 1950s. But from 1954 until the 1980s, the tobacco industry successfully fought hundreds of legal cases. First, the industry denied that tobacco causes disease and death. Later, they argued that it was common knowledge that smoking caused disease, and so smokers knew the health risks. In fact, the industry's success was due to a policy of unlimited resources in even the smallest case, arguing minor details, and generally creating delays and chaos.

The first successful case in the US in 1983 suggested an important strategy: changing the public perception of the tobacco industry by focusing on the misconduct of the industry and away from blaming the individual.

- 9.5.3. The tobacco product industry that has long been “blaming the victim”, claiming that smokers freely accepted their risks.** Evidence showed that nicotine is as addictive as heroine and cocaine; and that tobacco industry increased the addictive nature of nicotine by inclusion of additional substances or through the processing process. Further data showed that almost all smokers became addicted before they reach their adult age, and that cigarette companies carefully target under-aged youth.

²⁴ Report of the Committee on Experts of Tobacco Industry Documents July 2000; Tobacco Company Strategies to Undermine Tobacco Control at the World Health Organization
http://tobacco.who.int/repository/stp58/who_inquiry.pdf

9.5.4. Example of Litigation Cases Conducted in Several Countries.

9.5.4.1 US State Attorney Generals. In 1998, the supreme attorney in every state in the US won their cases against the tobacco industry amounting to US\$ 246 billion where part of it are used to cover the cost of health services and to treat diseases of the smokers. Success of this case was due to the focus on funding and trauma borne by the government and other third parties for treatment of smokers' diseases. In addition, law prosecution requires exposure of 35 million pages of tobacco company industry document by the State of Minnesota. Parts of the document can be accessed by the public in the internet.²⁵

9.5.4.2 Engle Case: A 'US Class Action'. Engle "class action" prosecution was brought forward in 1994 for 40,000 – 50,000 Florida citizens who became sick due to smoking. In 1999, the judge decided that the tobacco company is guilty by making products causing addictions and disabilities, conspiring to hide the danger of smoking, and responsible for punitive damage. The judge gave US\$ 12.7 million to three victims of lung cancer and their widows, followed by US\$ 145 million for punitive damages to the prosecuting group. This case was brought to the appeal court.

9.5.4.3. Prosecution Against Misleading Messages: Case in the US. In March 2002, a judge in Portland, Oregon requested Philip Morris to pay US\$ 168,000 to make up the losses of the compensatory damages and US\$ 150 million to make up the losses of the punitive damages given to a today who have smoked 'low tar' Merit branded cigarettes of the company. The judge proved that Philip Morris made a fake statement as if light cigarettes are less dangerous than usual cigarettes. The judge also proved that the Merit cigarette company products are "defective and unreasonably dangerous."²⁶

9.5.4.4. Prosecutions of Various Other Countries. Tobacco related law suits are underway in about 30 other countries. There are two kinds of main law prosecution: 1) individual and groups of individuals seeking compensation for loss due to health damage from passive and active smoking; and 2) the government or the health insurance company seeking compensation for financial loss from the health costs of treatment for diseases related to smoking. Law prosecutions related to tobacco have been brought to courts in Australia, Bangladesh, Brazil, Canada, China, Finland, France, Germany, India, Ireland, Israel, Marshall islands, Pakistan, Japan, Norway, Oman, Peru, Poland, south Korea, Spain, Sri Lanka, Swiss, Uganda and UK. There are eighteen cases at present which are still waiting in eleven countries.

²⁵ See the Tobacco Control Archives: University of California San Francisco
<http://www.library.ucsf.edu/tobacco/>

²⁶ ASH UK. See Litigation. <http://www.ash.org.uk/>

9.5.4.4 Cigarette Smuggling. Some countries (including Canada and the European Union) have tried to prosecute tobacco companies due to their conspiracy roles to smuggle cigarette and avoid tax (see Chapter 6).²⁷

9.5.4.5 Environmental Tobacco Smoke: Case in Australia. In 1991, the *Australian Federation of Consumer Organizations* succeeded in charging that the tobacco industry's advertisements about the harmful effects of second-hand smoke were misleading and deceptive.

9.5.4.6 India: public interest litigation (PIL) takes advantage of the right of Indian citizens to petition the Supreme Court to enforce individual constitutional rights. The first petition put forth by Murli Deora asserted that the government's inaction in controlling tobacco use has undermined the constitutional rights of citizens to life and health. In 2001, as a response to Deora's petition, Indian Supreme Court instructed Indian states to issue a regulation to ban smoking in hospitals, education institutions, trains and public transports, courts and government offices, libraries and auditoriums all through India.

9.5.4.7 Syariah Court in Saudi Arabia. In 2001, the famous cancer hospital in the kingdom of Saudi Arabia prosecuted the Syariah Supreme Court in Riyadh against ten international tobacco companies and its local distributors. The US\$ 2.9 billion prosecution is to fund the treatment of around three million smokers who have been ill for 25 years. The case is based on Islam teachings that smoking is *haram*, because it degrades the body and offends human dignity.

9.5.4.8 Prosecution towards violation of broadcasting time in Indonesian TV in 2002. A law prosecution was brought forward by the Indonesian Consumer Institution Foundation, Indonesian Heart Foundation, No Tobacco Indonesian Women, Indonesian Cancer Foundation and Smoking Problem Control Foundation against two cigarette companies (Djarum and Sampoerna), two private TV stations (RCTI, SCTV), two printing media and three advertisement bureaus (Bisnis Indonesia, Gatra, PT Perada Swara Production, PT Citra Lintas Indonesia and PT Metro Perdana Indonesia) due to broadcasting cigarette commercial advertisements in the morning and afternoon, by violating government regulation prohibiting cigarette advertisement on TV during the day after 5 in the morning and before 9.30 in the evening.

Prosecutor requested the accused to pay 500 billion rupiahs (US\$ 5,5 million) to make up the loss for funding the health promotion and established management institution. The plaintiffs lost and were ordered to make a public apology. Response to the decision was to brought forward to 'Legal Standing'.

²⁷ Tacking the illicit trade in tobacco, ASEAN inter-sessional meeting, 4-7 March 2002.

http://www.ash.org.uk/html/international/html/as_smuggling.html; BAT and smuggling; ASH UK http://www.ash.org.uk/index.php?navState=&getPage=http://www.ash.org.uk/html//smuggling/html/smugglin_gbat.html; Merriman et al 2002, How big is the worldwide cigarette smuggling problem? In Tobacco Control in Developing Countries, Oxford University Press. <http://www1.worldbank.org/tobacco/tcdc.asp>

Chapter 10. The WHO Framework Convention on Tobacco Control (FCTC)

10.1. What is the FCTC?

10.1.1. Introduction

The FCTC is a convention, or treaty, on tobacco control that is an international legally binding instrument for the countries that ratify it. The FCTC text was developed from 1999 and finalized in February 2003 after undergoing six international meetings and numerous regional consultations. The Government of Indonesia had actively participated in all the six international negotiations held by the Intergovernmental Negotiating Body (INB) in Geneva, as well as the regional consultations among WHO member states in the South East Asian Region (WHO SEARO) and ASEAN. The Government of Indonesia was represented by the Ministry of Health, The Ministry of Foreign Affairs, the Ministry of Trade and Industry, Ministry of Finance, and the National Agency of Drug and Food Control.

The FCTC text was adopted unanimously by the 56th World Health Assembly, which serves as the highest decision making body in WHO, on 21 May 2003. The FCTC will come into force after at least 40 countries have ratified it. In the future, the FCTC will also be supported by protocols, which must go through the similar process of negotiation, adoption and subsequent ratification by each country.

10.1.2. Objectives

The objective of this Convention and its protocols is to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke by providing a framework for tobacco control measures to be implemented by the Parties at the national, regional and international levels in order to reduce continually and substantially the prevalence of tobacco use and exposure to tobacco smoke

10.1.3. The Ratification Process

The WHO Framework Convention on Tobacco Control was adopted unanimously by the 56th World Health Assembly on 21 May 2003, and is now opened for signing by the Member States. In general, the procedural outline that the FCTC must go through until it becomes a binding international law is as follows:

Step 1. May 2003. World Health Assembly adoption.

In May 2003 the World Health Assembly unanimously adopted the FCTC.

Step 2. Treaty signing

The FCTC has been opened for signing since 16 June 2003. It is not a legally binding step, but an indication that the country intends to undertake a careful examination of the treaty in good faith to determine its position towards it.

Signature expresses political approval of the treaty. By February 2004, 95 Member States and the European Community had signed the treaty. The FCTC remains open for signature at the UN Headquarters in New York until 29 June 2004.

Step 3. Ratification

Ratification consists of two steps. First, the appropriate organ of the State (for example the Parliament) agrees to undertake the relevant treaty obligations and to do so in accordance with the relevant constitutional procedures.

Second, the government deposits an instrument of ratification with the UN Secretary-General. Upon ratifying, a country becomes a Contracting Party of the Treaty. As soon as 40 countries ratify the treaty, it enters into force or will become law for those countries, and for other countries that ratify it later. As of February 2004, 9 countries have ratified the FCTC.

After 29 June 2004, the treaty closes for signature. States will need to accede to the treaty to become a Contracting Party to the FCTC. Accession is the same as ratification but is not preceded by signature. In other words, if a country accedes to the FCTC, it must be prepared to immediately enforce it.

Step 4. Protocols

Some separate, more specific, agreements called protocols may be written to supplement and support the treaty. These protocols are specific substantive obligations that implement the general objectives of a previous framework or umbrella convention. Some possible protocols for the FCTC include smuggling and cross-border advertising. Protocols are subject to independent ratification, and may be developed at any time during or after the signing and ratification process. The current treaty text states that only parties to the Convention may be parties to any protocols.

The May 2003 World Health Assembly decided that, after the FCTC enters into force, protocols will only be negotiated by the Conference of the Parties.

Step 5. Treaty becomes international law

Ninety days after the FCTC has been ratified by at least 40 countries, it formally becomes an international law, and is subject to the rules and procedures of international law. The treaty will only regulate relations between countries that have both ratified it.

Step 6. Conference of parties

Within one year after the treaty enters into force, the Conference of the Parties (COP) will convene. The COP will monitor the implementation of the treaty, and promote the mobilization of financial resources

10.2. Existing Regulations in Indonesiaⁱ**10.2.1. Peraturan Pemerintah (PP) 81/1999**

PP 81 was issued as an implementation document of tobacco control measures stated in UU (Undang-Undang) on Health/1992. The articles include regulations on advertisements, health warning labels, restriction of tar and nicotine level, public disclosure of cigarette content, penalties and enforcement, regulatory authority, public participation, and smoke-free environments provisions. This PP, however did not address issues on economics, liability, sales to minor or sponsorships. Existing tobacco industry operations were to follow suit within 2 years.

10.2.2. PP 38/2000

PP 38 basically revises PP 81/1999 on tobacco advertisements (permitting ads on electronic media, in addition to printed and outdoor media) and prolonging the deadline for industries to comply with new regulations, to 5-7 years, depending on the type of industry.

10.2.3. PP 19/2003

PP 19 is the newest regulation, which replaces PP 81/1999 and PP 38/2000 on tobacco control. PP 19/2003 contains aspects related to size and types of message in health warning labels, time restrictions for electronic media, and testing tar and nicotine level. This PP does not include maximum levels for tar and nicotine.

ⁱ Law (Undang-Undang or UU), is approved by the parliament. Peraturan Pemerintah (PP) is a bill that is signed by the president but does not require approval in the parliament. Keputusan President (KepPres) is a presidential decree.

10.3. Key Aspects of the FCTCⁱⁱ and comparison with PP 19/2003ⁱⁱⁱ**a) Price and Tax Measures**

Legislative Aspect	FCTC	PP 19/2003
Price and tax policies	" <u>Implementing tax policies and, where appropriate, price policies</u> , on tobacco products so as to contribute to the health objectives aimed at reducing tobacco consumption" (6:2a)	<u>No</u> price or tax regulation
Duty-free sales	" <u>Prohibiting or restricting, as appropriate, sales to and/or importations by international travelers of tax-and duty-free tobacco products</u> " (6:2b)	<u>No</u> regulation on duty-free sales
Tax rate	"The Parties shall provide rates of taxation for tobacco products and trends in tobacco consumption in their periodic reports to the Conference of the Parties, in accordance with Article 21 (6:3)	No regulation for tax control on tobacco consumption

The FCTC contains articles about price and tax regulations on tobacco products, while PP 19/2003 does not.

b) Smoke Free Environment

Legislative Aspect	FCTC	PP 19/2003
Legislation	"Each Party shall adopt and implement in areas of existing national jurisdiction as determined by national law and actively promote at the other jurisdictional levels the <u>adoption and implementation of effective legislative, executive, administrative and/or other measures//.</u> " (8:2)	Regional governments are obliged to realize the non-smoking areas as mentioned in Article 22 in their respective regions. (article 25)

ⁱⁱ WHO Framework Convention on Tobacco Control, Fifty-Sixth World Health Assembly, 21 May 2003

ⁱⁱⁱ Peraturan Pemerintah Republik Indonesia Nomor 19 Tahun 2003 Tentang Pengamanan Rokok Bagi Kesehatan, 10 Maret 2003

Legislative Aspect	FCTC	PP 19/2003
Provision of smoke-free environments	“...”providing for protection from exposure to tobacco smoke in indoor workplaces, public transport, indoor public places and, as appropriate, other public places” (8:2)	Public places, medical facilities, workplace and places specifically used for the venue of teaching process, child activity arena, worship place and public transport are declared as non-smoking areas. (article 22) Public transportation may provide a special place for smoking that is physically separated and is equipped by air absorber or have circulation which complies with the requirements stipulated by the minister in charge of communications affairs. (articles 24a,b)
Responsibility	-	Leaders or personnel in charge of public places, and workplace providing special place for smoking must provide air absorbers to protect the health of non-smokers. (article 23)

The similarity between PP 19/2003 and the FCTC is the protection against passive smoke in work and public places including public transportation. The implementation of this regulation however is under the authority of the local government to provide smoke free areas and the person responsible for these public places must provide physical infrastructure for passive smokers.

The FCTC promotes the adoption and implementation of *effective legislative, executive, administrative and/or other measures* to provide protection from exposure to tobacco smoke in indoor workplaces, and public places including public transportations.

c) *Product Regulation and Disclosure*

Legislative Aspect	FCTC	PP 19/2003
GUIDANCE on content testing and tobacco product emissions	“The Conference of the Parties (COP), in consultation with competent international bodies, shall propose <u>guidelines for testing and measuring the contents and emissions of tobacco products</u> , and for the regulation of these contents and emissions//...” (9)	The content of nicotine and tar as meant in paragraph (1) is examined <i>in accredited laboratories in accordance with the provisions of laws in force</i> . (article 4:2)
LEGISLATION on content testing and tobacco product emissions	“...”Each Party shall, where approved by competent national authorities, adopt and <u>implement effective legislative, executive and administrative or other measures for such testing and measuring, and for such regulation</u> ”(9)	Everybody producing cigarettes <i>must examine content of nicotine and tar</i> in every production. (article 4:1)

Legislative Aspect	FCTC	PP 19/2003
DISCLOSURE of content and emissions to the government	"Each Party shall, in accordance with its national law, adopt and implement effective legislative, executive, administrative or other measures requiring manufacturers and importers of tobacco products to disclose to governmental authorities information about contents and emissions of tobacco products //.." (10)	Everybody producing cigarettes <i>must provide information on the content of nicotine and tar of every cigarette produced</i> (article 5)
DISCLOSURE of content and emissions to the public	//.."Each Party shall further adopt and implement effective measures for public disclosure of information about toxic constituents of the tobacco products and the emissions that they may produce." (10) "Each unit packet and packages of tobacco products and <u>any outside packaging and labeling of such products</u> shall, in addition to the warnings specified in paragraph 1(b) of this article (11:1b), contain information on relevant constituents and emissions of tobacco products as defined by national authorities" (11:2)	Everybody producing cigarettes must <i>mention information on the content of nicotine and tar of every cigarette in a label</i> with clear and easily readable placement. (article 6:1) <i>No article regulating the information placed on the cover of every package or the label of tobacco products.</i>

According to PP 19/2003, the Government of Indonesia requires tobacco industries to be tested for tar and nicotine levels. Each company must disclose to the government and public, the content of tar and nicotine levels, but not all of its chemical substances or emissions. (The tests can be conducted by accredited laboratories in accordance with the provisions of laws in force. All companies must disclose its tar and nicotine levels on a label with clear and easily readable placement). *There is no article regulating the information placed on the cover of every package or the label of tobacco products. Tidak ada ketentuan tentang pencantuman di bagian luar kemasan selain pada bungkus rokok.*

The FCTC requires tobacco industries to disclose toxic constituents and emissions of tobacco products to the public and the regulatory authority. Content disclosure must also be provided on any outside packaging and labeling of tobacco products. Each Party shall further adopt and implement these effective measures within a period of three years after entry into force of this Convention for that Party.

d) Packaging and Labeling

Legislative Aspect	FCTC	PP 19/2003
Health warning on package	"Each unit packet and package of tobacco products and any outside packaging and labeling of such products also carry <i>health warnings</i> describing the harmful effects of tobacco use, and may include other appropriate messages. The messages shall be approved by the competent national authority, <u>shall be rotating, shall be large, clear, visible and legible, should be 50% or more of the principal display areas but shall be no less than 30% of the principal display areas, may be in the form of or include pictures or pictograms</u>" (11: 1b) "For the purpose of this article, the term "outside packaging and labeling" in relation to tobacco products applies to any packaging and labeling used in the retail sale of the product." (11:4)	The health warning in every label must be <u>in the form of writing. The writing must read:</u> "Smoking can cause cancer, heart attack, impotence and pregnancy and embryo disturbance". (article 8:1,2) The health warning mentioned in article 8(2) must be stated clearly in a label as part of the package and is easy to see and read. The health warning must be placed on the wide side of each package of cigarettes, in the shape of a square with a 1mm border, with contrasting color between the font and the base color, with minimum size of 3 (three) mm, so that it can be easily read. (article 9:1,2)
Misleading terms and information	"Tobacco product packaging and labeling do not promote a tobacco product by any means that are false, misleading, deceptive or likely to create an erroneous impression about its characteristics, health effects, hazards or emissions, including any term....that directly or indirectly creates the false impression that a particular tobacco product is less harmful than other tobacco products. These may include terms such as "low tar", "light", ultra-light", or "mild" (11:1a)	<u>There is no regulation on information of misleading terms</u> such as low tar, light, ultra-light, mild.

PP 19/2003 enforces a single health-warning message on tobacco products without any alternative for rotation, to be placed where it is easily read with the size of 3 mm on the package; with a 1 mm border. The warning must be in *the form of writing*. *There is no regulation on the proportion of the size of the health warning. (The explanatory articles for article 18 paragraph (2) mentions that the health warning must be at least 15% (fifteen percent) of the total advertisement).* There are no articles that regulate false or misleading information.

The FCTC text requires that at least 30 per cent - but ideally 50 per cent or more - of the display area on tobacco product packaging is taken up by clear health warnings in the form of text, pictures or a combination of the two. Health warnings are also required on each unit packet and package of tobacco products sold. Packaging and labeling requirements also

prohibit misleading language that gives the false impression that the product is less harmful than others. This may include the use of terms such as “light”, “mild” or “low tar”.

e) Public Education, Communication, Training and Awareness

Legislative Aspect	FCTC	PP 19/2003
LEGISLATION on Public Education, Communication, Training and Awareness	<u>“Each Party shall promote and strengthen public awareness</u> of tobacco control issues, using all available communication tools, as appropriate. Towards this end, each Party <u>shall adopt and implement effective legislative, executive, administrative or other measures</u> to promote: ..//” (12)	<u>There are no specific articles</u> on Public Education, Communication, Training and Awareness. This issue is a part of 1) <u>Community Participation (Chapter III):</u> “involvement in providing guidance and counseling as well as dissemination of information to the public with regard to the implementation of health protection against cigarettes” (article 29:d) <u>In order to enhance community participation,</u> the Minister in cooperation with related institutions shall disseminate the information and understanding of the implementation health protection against cigarettes. (article 31) 2) <u>Guidance (Chapter IV):</u> “Guidance on health protection against cigarettes is conducted through dissemination of information and advocacy, as well as the development of public ability to incorporate a healthy life style”. (article 33)
SCOPE of Public Education, Training, and Awareness	“a) broad access to effective and comprehensive educational and public awareness programs; b) public awareness about the health risks of tobacco consumption and exposure to tobacco smoke, and about the benefits of the cessation of tobacco use and tobacco-free life style; c) public access, in accordance to national law, to a wide range of information on the tobacco industry as relevant to the objectives of this Convention; d) effective and appropriate training or sensitization and awareness programs on tobacco control addressed to persons such as health workers, community workers, social workers, media, professionals, educators, decision makers, administrators and other concerned persons; e) awareness and participation of public and private agencies and NGOs not affiliated with the tobacco industry in developing and implementing intersectoral program and strategies for tobacco control; f) public awareness of and access to information regarding the	<u>Communities including everyone producing cigarettes and/or importing cigarettes</u> into Indonesian territory <u>have the opportunity</u> to play a significant role in achieving an optimal health status <u>through the establishment of non-smoking areas</u> . (article 26) <u>Involvement in providing guidance and advocacy as well as dissemination of information to society.(article 29b);</u> <u>Articles that are not directly related with materials on Public Education, Training and Awareness that are part of the Chapter on Community Participation are:</u> <u>Community participation</u> can be conducted through a) <u>thoughts and considerations related to stipulation of policies</u> and/or implementation of program for health protection against cigarettes; b) assistance and/or cooperation in <u>research and development</u> in overcoming the dangers of smoking; c) <u>assistance in infrastructure and facility</u> for conducting health protection against cigarettes; d) involved in <u>providing</u>

	adverse health, economic, and environmental consequences of tobacco production and consumption" (12a-f)	<u>assistance and advocacy as well as disseminating information to the society; e) supervising</u> the implementation of health protection against cigarettes. (article 29)
--	---	---

PP 19/2003 *does not include any specific articles on Public Education, Information and Awareness. Community participation is responsible for this aspect* (article 29). The function of the government is to encourage and support community participation and facilitate the implementation of health protection against cigarettes. (articles 31, 33).

PP Article 26 states that THE COMMUNITY INCLUDING TOBACCO INDUSTRIES HAVE THE OPPORTUNITY to play a significant role in increasing the health status THROUGH the establishment of NON SMOKING AREAS. Several aspects in this article are: 1) no requirement, but is given a large opportunity; 2) together with tobacco industries to increase the health status only through one method, which is to establish non-smoking areas. The scope of Public Education, Information, and Awareness activities are restricted to smoke free areas and dissemination of information to the society regarding health protection against cigarettes.

The FCTC expects each member country's Government to be responsible for promoting and strengthening public awareness of tobacco control issues, using all available communication tools, supported by adopting and implementing effective legislative, executive, administrative or other measures. The scope of public education, information and awareness is very wide and involves various institutions: schools, health workers, community workers, social workers, media, professionals, educators, decision makers, administrator and other concerned persons.

f) Comprehensive Ban on Advertising, Promotions, and Sponsorships

Legislative Aspect	FCTC	PP 19/2003
Bans on Advertising, Sponsorship and Promotion	"Each Party shall, in accordance with its constitution or constitutional principles, undertake <u>a comprehensive ban of all tobacco advertising, promotion and sponsorship</u>. This shall include, subject to the legal environment and technical means available to that Party, <u>a comprehensive ban on cross-border advertising, promotion and sponsorship originating from its territory</u>." (13:2) "A party that is not in a position to undertake a comprehensive ban due to its constitution or constitutional principles shall apply restrictions on all tobacco advertising, promotion and sponsorship. This shall include, subject to legal	<u>Cigarettes can only be advertised and promoted by those who produce and/or import cigarettes in to Indonesia's territory</u>. (article 16:1) The advertisements as mentioned in article 16 (1) <u>can be done in electronic media, printed media or outdoor media</u>. <u>Sponsor activities done by those who produce and/or import cigarettes in Indonesia's territory with intentions for advertisement and promotion can only be done by following the regulations on advertisement and promotion as mentioned in this government regulation</u>. (article 20)

	environment and technical means available to that Party, restrictions or a comprehensive ban on advertising, promotion and sponsorship originating from its territory with cross-border effects" (13:3)	
Legislative Aspect	FCTC	PP 19/2003
CONT	"..... <u>within a period of five years after entry into force of this Convention for that Party</u> , each Party shall undertake appropriate legislative, executive, administrative and/or other measures and report accordingly in conformity with Article 21" (13:2)	
Ad content/design	" <u>prohibit all forms of tobacco advertising, promotion and sponsorship that promote tobacco products by any means that are false, misleading or deceptive or likely to create an erroneous impression</u> about its characteristics, health effects, hazards or emissions" (13:4a)	The advertisement content as mentioned in article 16 (2) must not: encourage or persuade people to smoke; describe or recommend people that smoking is beneficial to health; show cigarette packages, cigarettes, or someone smoking or focus on someone smoking; focus or have pictures and/or writings of children ,teenagers or pregnant women; display the product brand; or conflict with social norms. (article 17)
Health warnings on ads	"require that health or other appropriate warnings or messages accompany all tobacco advertising and, as appropriate, promotion and sponsorship" (13:4b)	All advertisements in the electronic media, printed media, or out door media must include health warnings. (article 18:1)
Time restriction for advertisements	--	Advertisements in the electronic media are restricted to 21.30-05.00 local time (article 16:3) (potential conflict with UU broadcasting)
Free cigarette products	"Each Party shall <u>prohibit or promote the prohibition of the distribution of free tobacco products to the public and especially minors</u> " (16:2)	Those producing and/or importing cigarettes into the Indonesian territory is <u>prohibited from promoting its product by giving away free charged cigarettes or gifts in the form of cigarettes or other products that have their cigarette brand name</u> (article 19)

According to PP 19/2003, cigarette advertisements and promotions are allowed in the electronic, printed and outdoor media; this also applies for sponsorship activities. Advertisements in the electronic media are restricted to a specific time between 21.30-05.00. This regulation in fact is contradictory to the UU on Broadcasting that does restrict cigarette advertisements to a specific time, the UU only regulates that cigarette advertisements must not show the form of a cigarette.ⁱⁱⁱ

ⁱⁱⁱ http://www.kominfo.go.id/kebijakan_file/UU_PENYIARAN.pdf

According to the FCTC, the Parties are required to move towards a comprehensive ban within five years of the convention entering into force. In this respect, within the period of five years after entry into force of this Convention for that Party, each Party shall undertake appropriate legislative, executive, administrative and/or other measures and report accordingly in conformity with Article 21.

The text also explicitly requires signatories to the convention to look at the possibility of a protocol to provide a greater level of detail on cross-border advertising. This could include the technical aspects of preventing or blocking advertising in areas such as satellite television and the internet.

While all countries agreed that a comprehensive ban would have a significant impact in reducing the consumption of tobacco products, some countries have constitutional provisions – for example, those covering free speech for commercial purposes – that will not allow them to implement a complete ban in all media.^{iv} The FCTC Article 13, paragraph 3 also states that “for those parties that are not in a position to undertake a comprehensive ban due to its constitution or constitutional principles,” these parties must restrict tobacco advertising, promotion and sponsorship within the limits of their laws.

g) Demand Reduction Measures Concerning Tobacco Dependence and Cessation

Legislative Aspect	FCTC	PP 19/2003
Guidelines and Promotion of Smoking Cessation	“Each Party shall develop and disseminate appropriate, comprehensive and integrated guidelines based on specific evidence and best practices, taking into account national circumstances and priorities, and shall take effective measures to promote <u>cessation to tobacco use and adequate treatment for tobacco dependence</u> ” (14:1)	<i>No articles on Smoking Cessation</i>
Activities	“a) design and implement effective program aimed at promoting cessation of tobacco use, in such locations as educational institutions, health care facilities, workplaces and sporting environments; b) include diagnosis and treatment of tobacco dependence and counseling services on cessation of tobacco use in national health and education programs, with the participation of health workers, community workers and social workers as appropriate; c) establish in health care facilities and rehabilitation centers programs for diagnosing, counseling, preventing and treating tobacco dependence..//” (14:2a-c)	<i>No equivalent provision</i>

^{iv} <http://www.asil.org/insights/insigh100.htm>

Legislative Aspect	FCTC	PP 19/2003
Cooperation	“Collaborate with other Parties to facilitate accessibility and affordability for treatment of tobacco dependence including pharmaceutical pursuant to Article 22. Such products and their constituents may include medicines, products used to administer medicines and diagnostics where appropriate” (14:2d)	<i>No equivalent provision in the Indonesian legislation</i>

h) Illicit Trade of Tobacco Products

Legislative Aspect	FCTC	PP 19/2003
Legislation and Regulations	“Each Party shall adopt and implement effective legislative, executive, administrative or other measures to ensure that all unit packets and packages of tobacco products and any outside packaging of such products are marked to assist Parties in determining the origin of tobacco products, and in accordance with national law and relevant bilateral and multilateral agreements, assist Parties in <u>determining the point of diversion and monitor, document and control the movement of tobacco products and their legal status.</u>” (15:2) “Each Party shall endeavor to adopt and implement further measures including <u>licensing</u>, where appropriate, to control or <u>regulate the production and distribution</u> of tobacco products in order to prevent illicit trade” (15:7)	<i>There are no articles that address illicit of tobacco products</i> <i>Anyone producing cigarettes must have <u>license in the industrial field.</u> (article 10)</i>
Supervision/Surveillance	“Consider, as appropriate, <u>developing a practical tracking and tracing regime that would further secure the distribution system and assist in the investigation of illicit trade</u>” (15:2b) “Monitor and collect data on cross-border trade in tobacco products, including illicit trade, and exchange information among customs, tax and other authorities, as appropriate, and in accordance with national law and relevant applicable bilateral or multilateral agreements” (15:4a)	The Minister and Ministries concerned will supervise the implementation of health protection measures against cigarettes (article 35:1) The Minister and Ministries related can take <i>administrative measures against violations against this government regulation</i> according to its mandate and function. (article 35:2) <i>(Article 35 is not relevant to article 15 in the FCTC because the specific article mentioned in this government regulation is not related to illicit trade).</i>

Legislative Aspect	FCTC	PP 19/2003
	<u>"Enact or strengthen legislation, with appropriate penalties and remedies, against illicit trade in tobacco products, including counterfeit and contraband cigarettes" (15:4b)</u>	Supervision on cigarettes advertised and distributed is conducted by the Head of the National Agency for Food and Drug Control. (article 36:1). In accordance to the supervision of cigarettes advertised and distributed, as mentioned in (article 36:1), the Head of the National Agency for Food and Drug Control can issue written warnings and/or provide recommendations to related bodies to temporarily suspend activities or cancel industrial licenses. (article 36:2) <i>(No equivalent provision exists for FCTC article 15 because the explanatory articles in PP 19/2003 state that the supervision by the Head of the National Agency for Food and Drug Control mentioned in this government regulation is related the level of tar and nicotine, health warnings, compliance towards regulation on cigarette advertisement and promotion).</i>
Cooperation among Institutions	"The parties shall, as appropriate and in accordance with national law, promote cooperation between national agencies, as well as relevant regional and international intergovernmental organizations as it relates to investigations, prosecutions and proceedings, with a view to eliminating illicit trade in tobacco products. Special emphasis shall be placed on cooperation at regional and sub regional levels to combat illicit trade of tobacco products." (15:6)	<i>No equivalent provision exist for the PP</i>

There are no articles in PP 19/2003 that mention illicit trade. Although article 10 states that anyone who produce cigarettes must own an industrial license, there are no regulations about distributional license for distributors.

Surveillance/supervision responsibilities owned by the Minister and related Ministries to take administrative actions against violations on rules set in PP 19/2003 in accordance to their mandate and function *does not include supervision control on illicit trade since there is no*

article in PP 19/2003 that addresses it. According to PP 19/2003, the surveillance conducted by the Head of the National Agency for Food and Drug Control due to its authority to suspend industrial licenses are limited the verifying tar and nicotine levels, health warnings, compliance towards regulation on cigarette advertisement and promotion. Therefore, it is not relevant to compare articles 35-36 to the FCTC articles that address illicit trade.

Article 15 in the FCTC emphasizes the importance of eliminating all forms of illicit trade of tobacco products including smuggling, illicit manufacturing and counterfeiting, that not only does it affect the specific country but it also has impacts to other countries. Therefore besides taking effective legislative, executive and administrative measures that are inline with national laws and bilateral and multilateral agreements, it is essential to have sub regional, regional and global cooperation as mentioned in article 5:1 in the FCTC, and in addition conduct surveillance and give sanctions.

In detail, article 15:2a states that unit packets and packages of tobacco products for retail and wholesale use that are sold on its domestic market carry the statement: “*Sales only allowed in (insert name of the country, sub national, regional or federal unit)*” or carry any other effective marking indicating the final destination or which would assist authorities in determining whether the product is legally for sale on the domestic market.

i) Sales to and by Minors

Legislative Aspect	FCTC	PP 19/2003
Sales to minor	“Each Party shall adopt and implement effective legislative, executive, administrative or other measures at the appropriate government level <u>to prohibit the sales of tobacco products to persons under the age set by domestic law, national law or eighteen</u> ” (16:1)	<u>No restriction on sales/distribution to minors.</u>
Vending machine sales	“Ensuring that tobacco vending machines under its jurisdiction are not accessible to minors and do not promote the sale of tobacco products to minors” (16:1d)	Cigarettes sales by vending machines are restricted to particular places. (15:1) Further provisions about these certain places as mentioned in article 15:1 are stipulated by the regional governments. (article 15:2)
Sales per stick/small sizes	“Each Party shall endeavor to <u>prohibit the sale of cigarettes individually or in small packets which increase the affordability of such products to minors</u> ” (16:3)	<u>No restriction on single cigarette sales/minimum package sizes.</u>

PP 19/2003 does not include any prohibition on sales to minors, or any regulations on minimum package sizes. The only minimum restriction is that vending machines are placed in specific locations, although prices and sales for minors are highly accessible.

The FCTC clearly states restriction on sales to minors, and that sales per stick are prohibited. The FCTC also restricts sales promotions to minors.

j) Financial Resources

Legislative Aspect	FCTC	PP 19/2003
Financial Resources	"Each Party shall provide financial support in respect of its national activities intended to achieve the objectives of the Convention, in accordance with its national plans, priorities and programs" (26:2) " To assist Parties in meeting their obligations under the Convention, all relevant potential and existing resources, financial, technical, or otherwise, both public and private that are available for tobacco control activities, should be mobilized and utilized for the benefit of all Parties, especially developing countries and countries with economics in transition: (26:5a)	<i>No articles related to financial resources for tobacco control</i>
Cooperation among countries	".....the utilization of bilateral, regional, sub regional and other multilateral channels to provide funding for the development and strengthening of multi sectoral comprehensive tobacco control programs of developing country Parties and Parties with economics in trasion..// "(26:3)	The Minister and related Ministries, in conducting health protection against cigarettes can: cooperate with international organizations or agencies or community organizations to carry out health protections against cigarettes. (article 34: 1b)
Sustainable Development	<i>//.. " Accordingly, economically viable alternatives to tobacco production, including crop diversification should be addressed and supported</i> in the context of nationally developed strategies of sustainable development" (26:3).	The Minister responsible for agriculture affairs shall support crop diversification from tobacco to other crops. (article 34:2)

Legislative Aspect	FCTC	PP 19/2003
Support from the Secretariat and “Conference of the Parties”	“the Secretariat shall advise developing country Parties and Parties with economies in transition, upon request, on available sources of funding to facilitate the implementation of their obligations under the Convention” (26:5b) “the Conference of the Parties in its first session shall review existing and potential sources and mechanisms of assistance based on a study conducted by the Secretariat and other relevant information, and consider their adequacy; and” (26:5c) “the results of this review shall be taken into account by the Conference of the Parties in determining the necessity to enhance existing mechanisms or to establish a voluntary global fund or other appropriate financial mechanisms to channel additional financial resources, as needed, to developing country Parties and Parties with economies in transition to assist them in meeting the objectives of the Convention” (26:5d)	<i>No equivalent provision exists for the PP</i>

PP 19/2003 *does not have any articles addressing financial resources for tobacco control.*

The FCTC *clearly encourages mobilizing potential economic resources to achieve the Convention’s objective. Parties are required to provide financial support to their national tobacco control programs.* A number of countries and development agencies have already pledged their commitment to include tobacco control as a development priority.

For developing country Parties and Parties with economies in transition, Secretariat shall *advise*, upon request, on available sources of funding that can be mobilized which shall first be reviewed by the Conference of the Parties. The Conference of the Parties shall then determine the necessity to enhance existing mechanisms or to establish a voluntary global fund or other appropriate financial mechanisms to channel additional financial resources, as needed.

k) Research, Surveillance and Information Exchange

Legislative Aspect	FCTC	PP 19/2003
Research	“Initiate and cooperate in, directly or through competent international and regional intergovernmental organizations and other bodies, the conduct of research and scientific assessment, and in so doing promote and encourage research that addresses the determinants and consequences of tobacco consumption and exposure to tobacco smoke as well as research for identification of alternative crops;” (20:1a) “Promote and strengthen, with the support of competent international and regional intergovernmental organizations and other bodies, training and support for all those engaged in tobacco control activities, including research, implementation and evaluation” (20:1b)	<i>There are no regulations on research related to tobacco control.</i>
Surveillance	“The Parties shall establish, as appropriate. Programs for national, regional, and global surveillance of the magnitude, patterns, determinants and consequences of tobacco consumption and exposure to tobacco smoke. Towards this end, <u>the Parties should integrate tobacco surveillance programs into national, regional and global health surveillance program so that the data are comparable and can be analyzed at the regional and international levels</u>, as appropriate.” (20:2) “Establish progressively a national system for epidemiological surveillance of tobacco consumption and related social, economic and health indicators” (20:3a) “Cooperate with WHO in the development of general guidelines or procedures for defining the collection, analysis and dissemination of tobacco-related surveillance data” (20-3c)	<i>There are no regulations on Surveillance</i>

Legislative Aspect	FCTC	PP 19/2003
Information Exchange	“The Parties shall, subject to national law, promote and facilitate the exchange of publicly available scientific, technical, socioeconomic, commercial and legal information, as well as information regarding practices of the tobacco industry and the cultivation of tobacco, which is relevant to this Convention, and so doing shall take into account and address the special needs of developing country Parties and Parties with economics in transition” (12:4)	<i>There are no regulations on publication and information exchange related to tobacco control.</i>

l) Liability

Legislative Aspect	FCTC	PP 19/2003
Liability	“For the purpose of tobacco control, <u>the Parties shall consider taking legislative action or promoting their existing laws, where necessary, to deal with criminal and civil liability, including compensation where appropriate.</u>” (19:1) “The Parties shall, as appropriate and mutually agreed, within the limits of national legislation, policies, legal practices and applicable existing treaty arrangements, afford one another assistance in legal proceedings relating to civil and criminal liability consistent with this Convention”. (19:3)	<u>Related ministries</u> --individually or in cooperation shall conduct <u>various activities related to health protection against cigarettes</u>; in cooperation with international or non-governmental organizations –conduct health protection against cigarettes. (article 34:1a-b) In regard to surveillance, <u>the Minister and related Ministries can take administrative actions towards violation of this regulation</u> according to its own mandate and function, in the form of oral warnings, written warnings, suspend its activities and cancel it's industrial license. (article 35: 2,3)
Liability of Cigarette Sales and distribution		Further stipulations pertaining to placement of vending machines are determined by the <u>Regional Government</u> (article 15:2)
Liability of Smoke-free environments		<u>The head or managers of public places and workplaces</u> that designated Smoking Areas must provide air absorber to protect the health of non-smokers (article 23) Public transportations shall provide smoking areas. (article 24)

Legislative Aspect	FCTC	PP 19/2003
Liability in Production		<u>The Minister responsible for agriculture</u> must mobilize, encourage and use science and technology <u>to produce tobacco crops with minimum health risk</u> (article 12) <u>The Minister responsible for industry</u> must mobilize, encourage and use science and technology <u>in relation to cigarette production to produce cigarettes with minimal health risks</u>. (article 13)
Liability in Advertisement, Sponsorship and Promotion		<u>The head or those responsible of an event</u>; shall refuse any form of cigarette promotions that violate existing regulations on time restriction for electronic media. (article 16), previewing restricted advertisement content (article 17), does not obey regulations regarding health warnings (article 18) give away free cigarettes (article 19) and violate advertisement regulations (article 20). (article 21:2)
Surveillance		<u>Surveillance on cigarette distributed and on advertisement is conducted by the Head of the National Agency for Food and Drug Control</u>. (article 36:1) Supervision on cigarettes are limited to aspects on: proof of tar and nicotine levels, compliance of cigarette advertisement and promotion (PP explanatory articles) The Head of the National Agency for Food and Drug Control can give written warnings and/or provide recommendations to temporarily suspend activities or <i>withdraw industrial license</i> to related institutions (article 36:2)

PP 19/2003 identifies that related ministries and authorities must issue and implement regulations to further apply matters that concern tobacco control. However, there are no strong sanctions for violating articles in the PP. Article 37 ensures that violation to regulations mentioned in article 4 (1), 5, 6, 8, 9, 14, 15 (1), 16, 17, 18, 19, 20, 21 (2) *will be trialed according to existing legislations. In this case, almost all these articles do not have related legislation to be executed.* Article 41 in 19/2003 mentions that *with this PP, PP 81/1999 on Health Protection against Cigarettes as revised by PP 38/2000 is no longer valid.*

According to the FCTC, Parties to the convention are encouraged to pursue legislative action *to deal with criminal and civil liability, including compensation where appropriate.*”

AN INTERVIEW WITH FOUR CORPSES
Taufiq Ismail

A reporter at the hospital interviewed 4 corpses, before to their homes
The bodies were sent

The reporter held the medical reports of the patients turned corpses

"*Bapak*, are you dead because of lung cancer?" he asked one.

"No, I am dead because of the cigarette disease"

"*Bapak*, are you dead because of a heart attack?" he asked the second

"No. I am dead because of the cigarette attack"

"*Ibu*, did you die of *angina pectoris*?" he asked the third, a woman.

"No. I am dead because of the cigarette disease"

"*Bapak*, are you dead because of a stroke?" he asked the fourth corpse

"No. I died of the cigarette disease"

The reporter wrote thus in his tabloid.

"In the hospital, 4 corpses testified, they died not of
a lung cancer, a coronary heart attack, not of *angina pectoris* or
a stroke, but of the cigarette disease."

The next day all cigatte firms refuted the interview with the corpses.

A press conference was called at a five-star hotel across
The Health Ministry, on Jalan Kuningan, the capital of Indonesia

"The interview was not scientific. No such thing as the cigarette disease. Cigarettes are
innocent. Tobacco is innocent.

"If it is a lung cancer, call it lung cancer. If it is a coronary heart attack, call it coronary heart
attack, if *angina pectoris*, call it *angina pectoris*, if a stroke call it stroke openly.

Why bring cigarettes into it?
No such thing as a cigarette disease
Be fair
Besides, corpses don't talk."

GOVERNMENT

	DUTIES	FUNCTIONS	AUTHORITY
1 Ministry of Finance (a)	Assist the president in implementing part of the government duties in the field of finance and state wealth.	Accelerate the implementation and development in the field of state finance and state wealth. Development and implementation in the field of government revenue from tax, non-tax, export collection, and oil, and development and implementation in the field of customs and excise; Implementation in the field of international tax relationship; Development and coordination of formulation of Financial Note and Planning of Government Revenue and Expenditure as well as implementation of the Planning of Government Revenue and Expenditure; Implementation of research and applied development as well as education and certain training in order to support the policies in the field of government finance.	Arrangement on the appliance of international treaty or agreement validated in the name of the government in its field; Determination of policies on national information system in its field; Arrangement of state economic institution system in its field; Arrangement of bonded zone in its field; Determination of guidelines on the development and revision of Government Revenue and Expenditure, and guidelines on the arrangement of responsibilities. Development of financial report.
2 Excise Bureau (b)	Implement part of the duties of the Ministry of Finance in the field of excise and tax based on policies determined by the Minister and secure the policies related to traffic of goods into or out of the customs area and collection of customs and tax as well as other government collections based on the valid regulations.	Formulation of technical policies in the field of customs and excise, according to the policies determined by the Minister and the valid regulation. Planning, implementation, control, evaluation and securing operational techniques of government policies related to control on traffic of goods into and out of the custom area, according to the policies determined by the Minister based on the valid regulations; Planning, implementation, control, evaluation and securing operational techniques in the field of collection of customs, excise, as well as other collections which are borne the Director General of Excise base don the valid regulations. Planning, development and guidance in the field of service provision, licensing, facilitation, management and control in the field of customs and excise based on the valid regulations. Prevention of violation of regulations on customs and action in the field of customs and excise as well as investigation of customs law violation, and excise according to the valid regulations.	

GOVERNMENT

	DUTIES	FUNCTIONS	AUTHORITY
3	Coordinating Ministry of Economic (c.)	Assist the president in coordination and preparation as well as establishment of policy and its implementation in the field of economy. Coordination and increase integration in the preparation and formulation of government policies of the Office of the State Minister, Department, and Non-Departmental Government Institution in the field of economy; Controlling the implementation of policies.	Determination of policies in macro for the integration and synchronization of all government policies in its fields; Formulation and determination of agenda and macro priority policies of government institutions in its fields; Formulation of macro planning for synchronizing the government institutions' planning and program in its fields; Singing the convention or international treaty based on the authority from the President in its fields;
4	State Ministry of Communication and Information (d)	Assist the president in the formulation of policy and coordination in the field of national communication and information. Formulation of government policies in the field of communication and information, including telematic and broadcasting; Coordination of policies in the field of communication and information, including telematic and broadcasting; Coordination and increase integration in formulating planning and program, monitoring, analysis, and evaluation in the field of communication and information, including telematics and broadcasting;	Determination of policies in its fields for supporting macro development; Formulation of macro national plan in its fields; Determination of guideline for broadcasting; Determination of policies for national information system in its fields; Regulating of application for international agreement that is legalized on behalf on countries in its fields;
5	National Planning and Development Body (e)	Review and formulation of national policies in the field of national planning and development; Coordination, facilitation and implementation of researching of sources of funds in and outside the country, as well as allocation of funds for development together with related institutions; Arrangements of development program as a material to arrange planning of government revenue, implemented together with the Ministry of Finance and the State Minister for National Planning and Development; Implementation of development and general administrative services in the field of general planning, personnel, finance, archives, law, coding, logistics, and household.	Formulation and implementation of policies in national development plan and its assesment; Formulation of national planning policies in macro and combining cross sectoral and cross area planning; Exploring of sources for development budgeting in its fields; Allocation for budget that is needed for its fields;

GOVERNMENT

	DUTIES	FUNCTIONS	AUTHORITY
6	Drug and Food Control Body (f)	Implement government duties in drug and food control according to the valid regulation. Review and formulation of national policies in the field of drug and food control; Implementation of certain policies in the field of drug and food control; Monitoring, provision of supervision and development towards government institution and the community, in the field of drug and food control; Implementation of development and general administrative service, in the field of general planning, administration, organisation and management, personnel, finance, archive, law, coding, logistics and household.	Formulation of national plan in macro in its fields; Formulation policy in its fields to support macro development; Determination requirement for utilization addictive substance for food and determination guidelines for monitoring the distribution of drugs and food; Providing permission / licence and monitoring the distribution of drug including monitoring the pharmacy industry; Determination guidelines for utilization conservation, development and monitoring of herbs;
7	Ministry of Industry and Trade (g)	Assist the president in implementing part of the government duties in the field of industry and trade. Implementing research and applied technology as well as certain education and training in order to support policies in the field of industry and trade;	Determination policies in its fields to support macro development; Formulation national macro planning in its fields; Determination guidelines for management and protection of natural resources in its fields; Regulating of application for international agreement that is legalized on behalf of countries in its fields; Determination standard for licencing by districts in its fields; Export-import management; Determination policies of national information system in its fields; Determination qualification requirement for service company in its fields; Management of government institution systems in its fields; Determination standard for industry and certain products that related to security, public safety, health, environment and moral; Determination national standard for goods and services in the fields of industry and commerce; Determination policies for smooth planning, supervision and development, including monitoring for commodity commerce; Determination guidelines for consumer protection, guidelines for storage placement system, guidelines for utilization of local products and analyzing to support formulation policies in its fields; Coordination for distribution of main materials, determination of management guideline for trading institutions, trading facilities and agencies, including research for supporting the formulation policies in its fields; Metrology management and research to support the formulation of policies in its fields;

GOVERNMENT

	DUTIES	FUNCTIONS	AUTHORITY
			Determination policies and coordination of exports development;
8	Ministry of Agriculture (g&h) Assist the president in implementing part of the government duties in the field of agriculture and plantation.	Accelerate the implementation in the field of agriculture and plantation; Implementation of research and applied development, education and certain training, as well as implementation of strengthening the coordination of food endurance in order to support the policy in the field of agriculture and plantation.	Determination policies in its fields to support macro development; Determination requirement criteria and transition function of space area for formulation of in its fields; Formulation macro national plan in its fields; Determination guideline for management natural resources in its fields; Regulating of application for international agreement that is legalized on behalf on countries in its fields; Determination standard for giving permission by district in its fields; Determination policy of national information system in its fields; Management system of government economic institutions in its fields; Regulating and determination of norms and technical standard of health service for animal; Determination norms and standard for provision, management, and distribution of food material; Determination standard of dismissal and extracting variety of agricultural commodity; Determination standard and procedure of testing the quality of food material from natural resources (plants and animals); Determination criteria and standard for management plantation area; Determination criteria and standard permit of trade and plantation; Determination criteria and standard production, processing, quality control, marketing and distribution of plantation product including germinate, fertilizer and pesticides for the plantation's plants; Formulation of national plantation macro planning, including general pattern of rehabilitation of cultivated area, land conservation and formulatio of regional, design, land management and plantation primary industry; Determination standard types and quality of export and import commodity in its fields;
9	Ministry of Communication (g) Assist the president in implementing part of the government duties in the field of communication and telecommunication.	Accelerate the implementation in the field of communication and telecommunication;	Determination policy in its fieldsto support macro development; Formulation macro national plan in its fields;

GOVERNMENT

	DUTIES	FUNCTIONS	AUTHORITY
			Regulating of application for international agreement that is legalized on behalf of countries in its fields; Determination standard for giving permission by district in its fields; Determination qualification of service in its fields; Determination guideline of cross border port location inter province and intercountry, determination standard for determining working territorial water area or territorial port working area especially for ports located between provinces or between countries; Determination technical standard and certification of train facilities including the infrastructure for water transportation (sea, river, lake), ground and air transportation including determination of basic tariff for economic class; Determination standard for road signs and guideline for determination location where to put the road signs and bridge scales for weighing vehicles, determination standard for vehicles proper test, standard for vehicles registration and determination requirement for driving licence; Determination standard technical for equipment including meteorology service for flight and maritime; Certification equipment and facilities support for flight operation; Determination policy to support macro development in its fields; Formulation macro national planning in its fields; Regulating of application for international agreement that is legalized on behalf of countries in its fields; Determination standard for giving permission by district in its fields; Determination policy for community-based health care financing; Determination guideline for filtering, development, application of health technology, and standard norm of health research; Determination standard accreditation for health facilities and health infrastructures; Determination policy in its fields to support macro development; Formulation macro national plan in its fields;
10	Ministry of Health and Social Welfare (g)	Assist the president in implementing part of the government duties in the field of health and social welfare.	Accelerate implementation in the field of health and social welfare;
11	Ministry of National Education (g)	Assist the president in implementing part of the government duties in the field of education, empowerment of the young generation and sport.	Accelerate the implementation in the field of education, empowerment of young generation, and sports;
		Implementation of research and applied development and certain training in order to support the policy in the field of education, empowerment of young generation, and sports;	

GOVERNMENT

	DUTIES	FUNCTIONS	AUTHORITY
			Regulating of application for international agreement that is legalized on behalf of countries in its fields; Determination national information system policy in its fields; Providing support for developing facilities for youth including the sport facilities; Determination guideline for mobilization of young generation and the sport community; Determination policy for youth event activities including national/international sport events; Facilitate the implementation of movie sensor and recording video commercial; Determination policy in its fields to support macro development; Formulation macro national plan in its fields; Regulating of application for international agreement that is legalized on behalf of countries in its fields; Determination national information system policy in its fields; Determination policy in its fields to support macro development; Regulating of application for international agreement that is legalized on behalf of countries in its fields; Determination policy for industrial relationship, labour's patronage and labour's social insurance; Determination standard for work safety, healthy work, industrial hygiene, working environment and ergonomics; Determination guideline for deciding criteria of minimum physical needs; Determination guideline for monitoring exploitation for under aged worker.
12	Ministry of Religion (g)	Assist the president in implementing part of the government duties in the field of religion.	
13	Ministry of Manpower and Transmigration (g)	Assist the president in implementing part of the government duties in the field of manpower and transmigration.	Accelerate the implementation in the field of manpower and transmigration;

Source:

- ^aWebsite DepKeu: <http://www.depkeu.go.id/Organization/DepkeuTupoksi.htm>
- ^bWebsite Dir.Jend.Bea Cukai: <http://www.beacukai.go.id/organisasi/tupoksi.asp>
- ^cKeppres No.100 Th. 2001; http://www.ri.go.id/produk_uu/isi/keppres2001/kp100'01.htm
- ^dKeppres No.101 Th 2001; http://www.ri.go.id/produk_uu/isi/keppres2001/kp101'01.htm
- ^eKeppres No.102 Th.2001; http://www.ri.go.id/produk_uu/isi/keppres2001/kp102'01.htm
- ^fKeppres No.103 Th.2001; http://www.ri.go.id/produk_uu/isi/keppres2001/kp103'01.htm
- ^gKeppres No.165 Th.2000; http://www.ri.go.id/produk_uu/isi/keppres2000/kp165'00.htm
- ^hKeppres No.37 Th.2001; http://www.ri.go.id/produk_uu/isi/keppres2001/kp37-2001.html

Non-Governmental Organization that related to Tobacco Control

No	NGOs
1	Smoking Problem Control Institution
2	Coalition for Healthy Indonesia
	Aisyiyah
	Pulmonology Department & Respiratory Medics
	BKS-PGKM
	DPP Al-Hidayah Quran Recital
	Fatayat Nahdlatul Ulama
	Health Communication Forum
	Environment Observer Forum
	Indonesian Pediatrics Association
	National Epidemiology Network
	Indonesian Women Coalition, Jabotabek Area
	National Committee on the Control of Smoking Problems
	Indonesian Consumers Institution
	Nahdlatul Ulama
	PELKESI
	Indonesian Family Planning Association
	Indonesian Consolidated Contraception Association
	Indonesian Obstetry and Gynecology Association
	Indonesian Tuberculosis Eradication Association
	Indonesian Hospital Association
	White Band
	Central Indonesian Reporters Association
	Women Crisis Center
	Mother's Breastmilk Foundation
	Central IBI Delima Foundation
	Healthy Indonesia Foundation 2010
	Indonesian Heart Foundation
	Indonesian Cancer Foundation
	Kusuma Buana Foundation
	Indonesian Child Oncology Foundation
	Aqua Friend Foundation
3	National Committee for Smoking Problem Control
	Indonesian Psychology Association
	Indonesian Community Health Expert Association
	Indonesian Pediatrician Association
	Indonesian Medical Association
	Indonesian Medical Students Senate Association
	Indonesian Pulmonologists Association
	Indonesian Oncology Association
	Indonesian Tuberculosis Eradication Association
	Indonesian Film Artists Association
	Indonesian Sinetron Artists Association
	Indonesian Cardiovascular Specialists Association
	Republic of Indonesia Teachers Association
	Indonesian National Private Broadcasting Radio Association
	Indonesian Reporters Association
	No Tobacco Indonesian Women
	Indonesian Asthma Foundation
	Indonesian Heart Foundation
	Indonesian Cancer Foundation
	Indonesian Consumers Institution Foundation
	Indonesian Asthma Children Trustees Foundation
	Indonesian Stroke Foundation
4	Forum Parlemen Indonesia untuk Kependudukan dan Pembangunan

Lembaga yang AKTIF dalam Penanggulangan Masalah Merokok

A L S M

1 Komite Nasional Penanggulangan Masalah Merokok (Komnas PMM)

Sekretariat PB IDI
Jl. Dr. Sam Ratulangi No. 29, Jakarta Pusat 10350
Tel. = (021) 392 3094 / 315 0679
Fax = (021) 392 3094 / 390 0473
E-mail= komnaspmm@antirokok.or.id
Website= <http://www.antirokok.or.id>

2 Yayasan Jantung Indonesia (YJI)

Jl. Teuku Umar No. 8, Jakarta Pusat 10350
Tel. = (021) 390 9567 / 390 9176 / 390 8178
Fax = (021) 314 4670
E-mail = pbidipusat@indosat.net.id

3 Yayasan Kanker Indonesia (YKI)

Jl. Dr. Sam Ratulangi No. 35, Jakarta Pusat
Tel. = (021) 315 2603
Fax = (021) 310 8170

4 Wanita Indonesia Tanpa Tembakau (WITT)

Jl. Sawo - Perum. Villa Sawo, Kav. 12
Blok A - Cipete, Jakarta Selatan
Tel. = (021) 725 7940
Fax = (021) 725 7940
Website = <http://www.witt-online.org/>

5 Lembaga Menanggulangi Masalah Merokok

Jl. Cempaka Putih Timur No. 12, Jakarta Pusat
Tel. = (021) 424 6462
Fax = (021) 424 6462
E-mail = lembaga_m3@yahoo.com

6 Perkumpulan Pemberantasan Tuberkulosis Indonesia (PPTI)

Jl. Sutan Iskandar Muda No. 66 A
Kebayoran Lama Utara, Jakarta Selatan 12240
Tel. = (021) 739 7494
Fax = (021) 722 8126

7 Yayasan Lembaga Konsumen Indonesia (YLKI)

Jl. Pancoran Barat VII/1
Duren Tiga, Jakarta Selatan 12760
Tel. = (021) 798 1858 / 798 1859
Fax = (021) 798 1038

8 Yayasan Asma Indonesia (YAI)

Poliklinik Paru, RS. Persahabatan
Jl. Raya Persahabatan, Rawamangun, Jakarta Timur
Tel. = (021) 472 3255
Fax = (021) 472 3256

9 Yayasan Penyantun Anak Asma Indonesia (YAPNAS)

Gedung Asma Bagian Anak - RSCM
Jl. Diponegoro No. 17, Jakarta Pusat
Tel. = (021) 314 8930
Fax = (021) 314 8931

- 10 Yayasan Stroke Indonesia (YASTROKI)**
 Gedung Granadi Lantai III
 Jl. HR. Rasuna Said, Kuningan
 Kav. VIII-IX, Jakarta Selatan 12950
 Tel. = (021) 527 1959 / 527 4567
 Fax = (021) 526 1946
 E-mail = nsmc@cbn.net.id
- 11 Forum Parlemen Indonesia Untuk Kependudukan dan Pembangunan**
 Gedung Nusantara I, Lantai 23, Ruang 2327
 DPR RI
 Jl. Jenderal Gatot Subroto, Senayan
 Jakarta 10270
 INDONESIA
 Tel = (021) 575 6395
 Fax = (021) 575 6366
 E-mail = ifppd@dpr.go.id; ifppd2802@yahoo.com
- B ORGANISASI PROFESI**
- 12 Ikatan Dokter Indonesia**
 Jl. Dr. Sam Ratulangi No. 29, Jakarta Pusat 10350
 Tel. = (021) 315 0679
 Fax = (021) 390 0473
 E-mail = pbidi@idola.net.id
 Website= <http://www.idi.online.org/>
- 13 Perhimpunan Dokter Paru Indonesia (PDPI)**
 Bagian Pulmonologi FKUI
 UPF Paru RS. Persahabatan
 Jl. Raya Persahabatan, Rawamangun, Jakarta Timur
 Tel. = (021) 470 5685
 Fax = (021) 471 1222

Study Report on Smoking Behaviour of Junior High School Students in DKI Jaya

Soeratmi Sudarti, Poerbonegoro, Pinarti dan Mursidi (Indonesian Heart Foundation and Widya Prakarsa Foundation)

Smoking Behaviour in Indonesia

Suhardi (National Household Survey Series, Health Research and Development Board, Health Department of the Republic of Indonesia)

Tobacco Smoking Among Indonesian Male Senior High-School Students

R. Wasis Sumartono, Ganda Siburian, Ieke Irdjati (Center for Disease Control Research and Development, National Institute of Health Research and Development, Ministry of Health Republic of Indonesia)

Trends of Tobacco Use in Indonesia

R. Wasis Sumartono (National Institute of Health, Ministry of Health Republic of Indonesia)

Indonesian Government Policies and Programs on Tobacco Control: Realities and Hopes

R. Wasis Sumartono

Relation between Smoking and Lung Cancer: Epidemiological Review

Eddy Surjanto

Work Productivity Profile, Treatment Cost and Knowledge, Attitude and Behaviour towards its Diseases on Bronchial Asthma Patients

Boedi Swidarmoko, Hadiarto Mangunnegoro and Tjandra Yoga Aditama

Relation between Lung Cancer and Passive Smoking on Women

Taufik (Department of Pulmonology Faculty of Medicine University of Indonesia).Thesis.

Study on Knowledge, Attitude and Smoking Behaviour on Class V and VI Primary School Children in two Primary Schools in Central Jakarta Area 1994-1995

Corrie Wolumaya

Smoking Behaviour on 375 Sports Personnel of 10 Sport branches

Marius Widjajarta (LM3)

Cigarettes among Child Peddlers in Jakarta

Marius Widjajarta (LM3)

Smoking Behaviour of Drivers/assitant Drivers in Five Big Cities in Indonesia

Marius Widjajarta (LM3 and Indonesian Health Consumer Empowerment Foundation)

New Method to Help Smoking Cessation for Poor People in Central Java

Yayi Suryo Prabandari (Center for Behaviour and Health Promotion,
Medical Faculty, UGM
The World Bank
Pharmacia

Study on the Tobacco Economics and Health Consequences in Indonesia

Demographic Institute
WHO-SEARO