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World Health Organization Regional Office for South-East Asia

Publication Date

2017



Tobacco Control for Sustainable Development



**World Health
Organization**

Regional Office for South-East Asia

Tobacco control for sustainable development

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ISBN: 978-92-9022-578-2

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Suggested citation. Tobacco control for sustainable development. New Delhi: World Health Organization, Regional Office for South-East Asia; 2017. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

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Acknowledgement

Under the guidance of Director Dr Thaksaphon Thamarangsi, this publication was prepared by the TFI Unit of the Department of Noncommunicable Diseases and Environmental Health.

Contributions to the publication were made by Dr Jagdish Kaur, Dr Palitha Mahipala and Dr Manju Rani.

We extend sincere thanks to Member States for their inputs and feedback.

We acknowledge the research assistance provided by Dr Rohini Ruhil.

Foreword



Tobacco use is the largest preventable cause of death and main risk factor for major noncommunicable diseases worldwide. Tobacco leads to more than 7.2 million deaths globally each year with many of these deaths being premature and happening in low- and middle-income countries. The WHO South-East Asia Region is home to major tobacco producing as well as consuming countries. Nearly half of all males and two in every five females in the Region consume some form of tobacco. Tobacco use culminates in devastating health, social, environmental and economic consequences. It is a major barrier to sustainable development with impacts on health, poverty, education, economic growth, gender equality, environment, finance and governance.

Tobacco control plays a key role in the 2030 Agenda for Sustainable Development which was adopted by countries at the United Nations in September 2015, marking the transition from the Millennium Development Goals to a new, unprecedented and far-reaching agenda. This comprises 17 Sustainable Development Goals (SDGs) complete with 169 targets. Tobacco control is well reflected in the new set of goals and targets, particularly enshrined in SDG 3 – which relates to ensuring healthy lives and promoting well-being for all ages – and the specific target on reducing premature mortality from noncommunicable diseases by one third by 2030 (Target 3.4).

The World Health Organization's Framework Convention on Tobacco Control (WHO FCTC) has been recognized as one of the “means of implementation” to reach the overall health goal (Target 3.a) and other SDGs. Different SDGs are intertwined and inter-related with each other in many ways. Tobacco growing, production, manufacturing, sale and consumption relate to overall development and hence have major implications in achieving different SDGs.

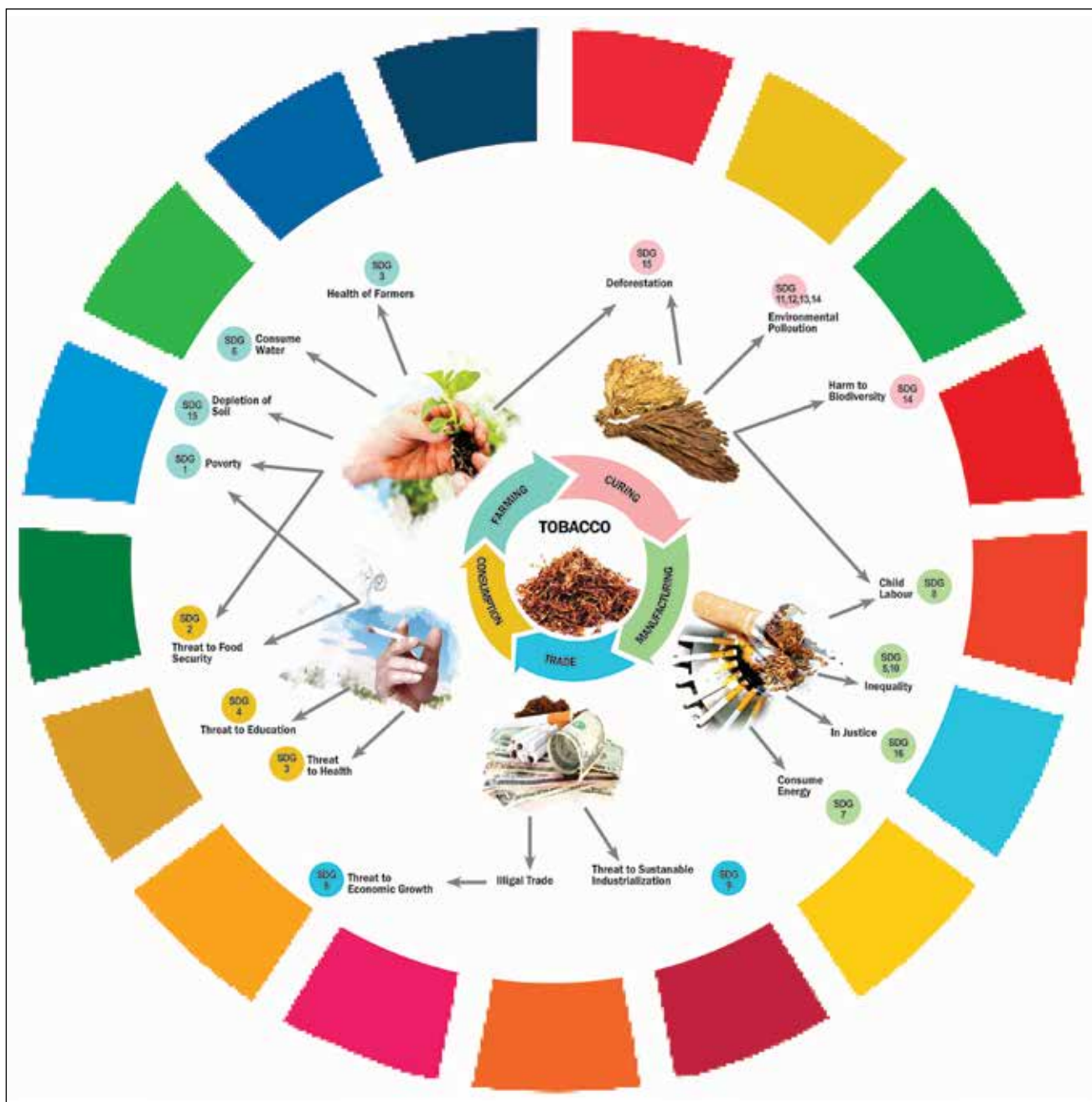
The theme of World No Tobacco Day 2017 is “Tobacco – a threat to development”. The countries are encouraged to protect health, reduce poverty and promote development while implementing effective tobacco control measures.

This document aims to guide Member States of the South-East Asia Region to counter the threat of tobacco to overall development using effective tobacco control through WHO FCTC implementation for achieving SDG 3 as well as other related SDGs at the country level. The document will be of use not only to the health sector but also help in achieving multisectoral coordination for tobacco control.

Dr Poonam Khetrpal Singh
Regional Director

List of Abbreviations

AIDS	Acquired Immuno-Deficiency Syndrome
COP	Conference of the Parties to WHO FCTC
CTRI	Central Tobacco Research Institute
CVD	cardiovascular diseases
DOTS	directly observed treatment, short course
FCTC	Framework Convention on Tobacco Control
GATS	Global Adult Tobacco Survey
GDP	gross domestic product
GYTS	Global Youth Tobacco Survey
HIV	human immunodeficiency virus
ICSID	International Centre for Settlement of Investment Disputes
LBW	low birth weight
LMICs	low- and middle-income countries
MDGs	Millennium Development Goals
MPOWER	package of six policy measures to reduce demand of tobacco
NCDs	noncommunicable diseases
PMI	Phillip Morris International
SDGs	Sustainable Development Goals
SEAR	South-East Asia Region
SHS	second-hand smoke
TB	tuberculosis
UN	United Nations
UNDP	United Nations Development Programme
USDHHS	US department of health and human services
WHO	World Health Organization
WNTD	World No Tobacco Day
WTO	World Trade Organisation



Tobacco and Sustainable Development Goals

Introduction

There are more than one billion tobacco users worldwide and 80 per cent of them live in low- and middle-income countries (WHO 2015). Tobacco use also imposes a heavy economic burden on the world. The cost of smoking alone is estimated to be US\$ 1.4 trillion, or 1.8% of the global GDP. Tobacco kills prematurely. On average, tobacco users lose 15 years of life, and up to half of all tobacco users die of tobacco-related causes (WHO).



“Millions hold to its prudent use. How much more difficult, then, must it be to convince men that there is any danger in the gentle, soothing powers of this loved narcotic! Fashion too unites with appetite in throwing a kind of spell over the tobacco consumer, which, however absurd and wicked the habit may appear to some, yet binds its victims in iron fetters. Arguments used to such, too often seem as powerless as they would in breaking up the spell of a rattlesnake.” (Baldwin 1853, Pg 4)

Burden of tobacco in South-East Asia

The WHO South-East Asia (SEA) Region is home to about one fourth of the world's population. As per estimates, there are 246 million smokers and 290 million smokeless tobacco users in the WHO SEA Region which makes it one of the largest tobacco consuming regions, housing one fourth of the smokers and more than 80% of the smokeless tobacco users globally. Every year, more than 1.3 million persons die as a result of tobacco in SEA Region countries. It is further estimated that 14% of male deaths and 5% of female deaths in the Region are attributed to tobacco (WHO 2015).

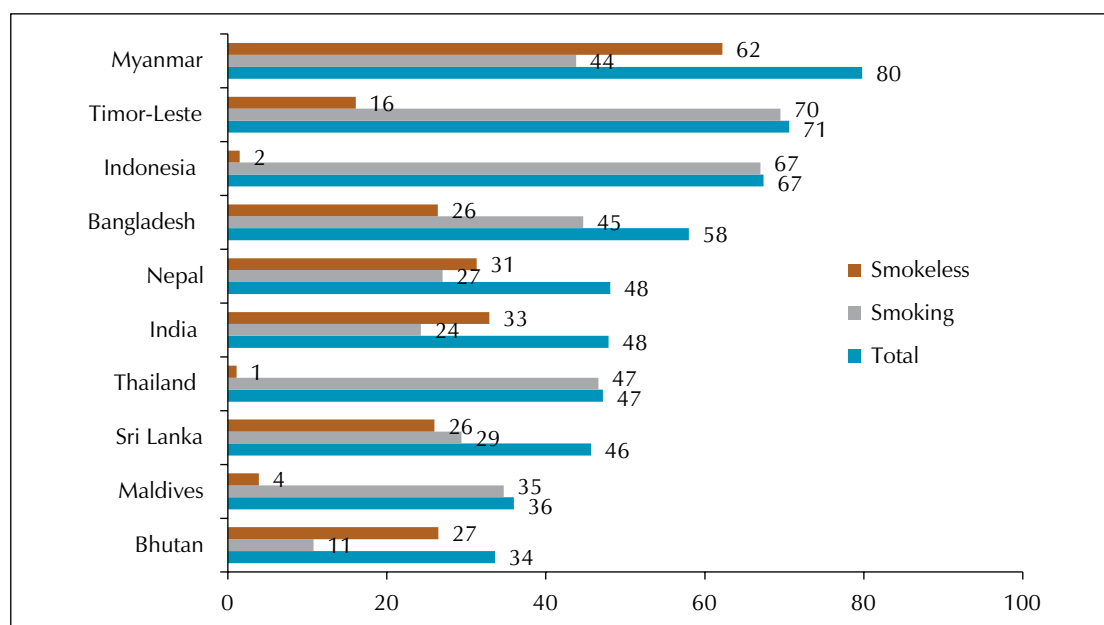
Tobacco use among adults

More than half of adult males and one in five adult females use tobacco in one form or the other in the WHO SEA Region. The pattern of tobacco use, community attitudes towards tobacco and types of tobacco products in use are very diverse in different countries. At many places, socio-cultural systems and religious beliefs are associated with tobacco use and related products such as arecanut.

Tobacco use among adult males ranges from around 34% in Bhutan (2014) to 80% in Myanmar (2014). The tobacco use was more than 20% among adult women in Bangladesh (2009), India (2009), Myanmar (2014) and Timor-Leste (2014) (Global Adult Tobacco Survey and NCD STEPS). The use of smokeless tobacco is widespread in the Region, with Bangladesh, India, Myanmar and Nepal having a sizeable proportion of tobacco users. More than 60% of adult men in Myanmar and more than 30% of adult men in India and Nepal

use smokeless tobacco. More women used smokeless tobacco as compared to smoking in Bangladesh, Bhutan, Indian, Myanmar and Timor-Leste (WHO 2015).

Figure 1: Percentage of current tobacco users (smoking and smokeless) among adults (male) in selected Member States of the South-East Asia Region.

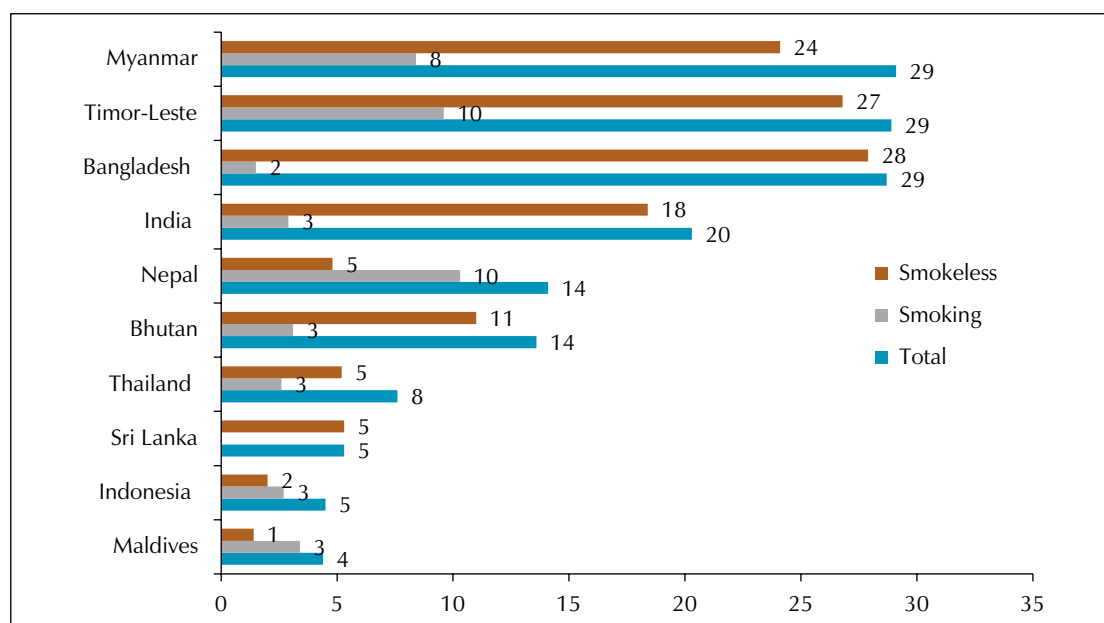


[Source: Global Adult Tobacco Survey (GATS) and NCD STEPS]

[Available from: http://www.searo.who.int/tobacco/data/adult_tobacco_brochure_2015.pdf]

[Note: The order of the above countries is based on total prevalence of tobacco use]

Figure 2: Percentage of current tobacco users (smoking and smokeless) among adults (female) in selected Member States of the South-East Asia Region



[Source: Global Adult Tobacco Survey (GATS) and NCD STEPS]

[Available from: http://www.searo.who.int/tobacco/data/adult_tobacco_brochure_2015.pdf]

[Note: The order of the countries is based on total prevalence of tobacco use]

[Note: In Sri Lanka SLT (smokeless tobacco use) for female is not available as numbers of respondent are less to calculate the prevalence]

Tobacco use in DPR Korea

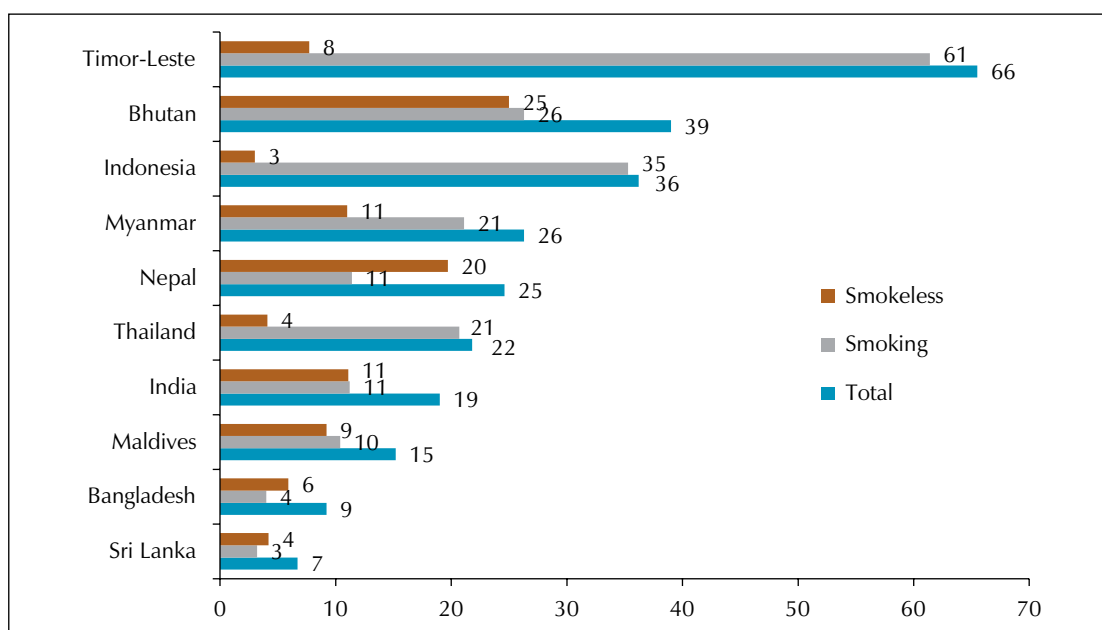
KAP (Knowledge, Attitude and Practices survey on cessation of smoking) Survey in DPR Korea was conducted in 2016. It was a nationwide survey of 17 years+ population, and revealed the following results regarding prevalence of tobacco use in the country:

- The prevalence of tobacco use (smoking) was 37.3% among men.
- Type of smoking tobacco used: Cigarettes 78.1%; and hand-rolled cigarettes 21.9%.
- There was no reported tobacco use among women.
- No respondent reported using smokeless tobacco because national tobacco law prohibits production, sale and import of both smokeless tobacco and e-cigarettes.

Tobacco use among youth

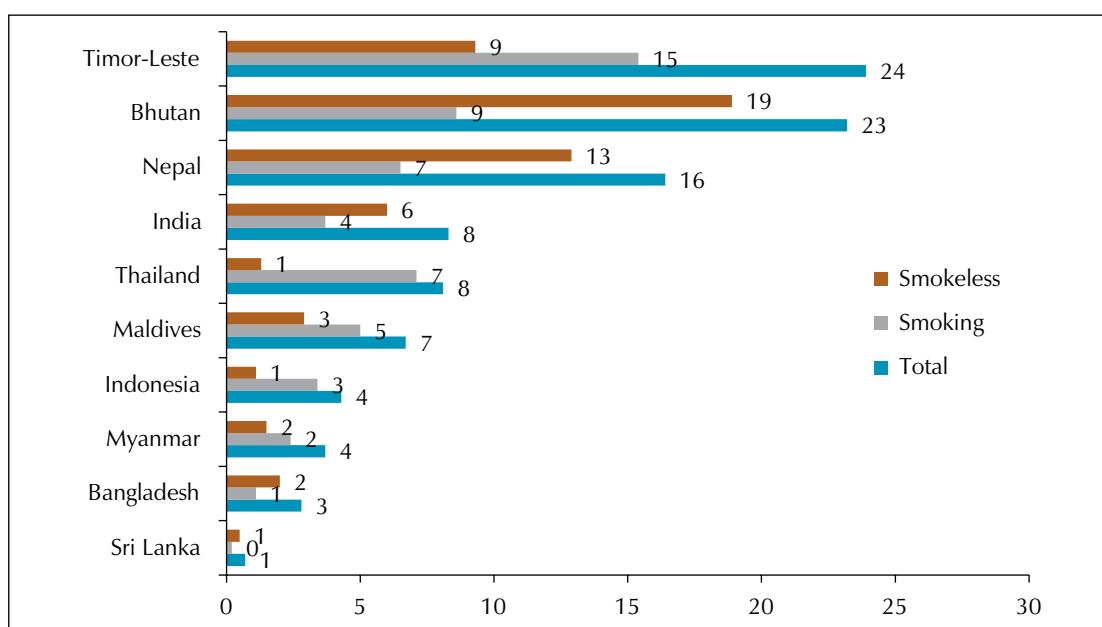
The SEA Region has a high prevalence of tobacco use (smoking and smokeless) among youth (schoolgoing children aged 13–15 years) as per the Global Youth Tobacco Surveys undertaken in different countries (Refer Figure 3 and 4). While smoking rates among youth (boys and girls) were high in Timor-Leste, Thailand and Indonesia; smokeless tobacco use was found to be high in Bhutan and Nepal. Bhutan, Nepal, India, Bangladesh and Sri Lanka have higher prevalence of smokeless tobacco use as compared with smoking. The high prevalence of smokeless tobacco use was seen among young girls (aged 13–15 years) in Bhutan, Nepal and Timor-Leste (Figure 4). Most of the countries have policies in place to prevent access of youth to tobacco products. Factors such as high prevalence of tobacco use among adults, easy availability, accessibility, sociocultural milieu, low prices of tobacco products and gaps in implementation of tobacco control policies play an important role in youth taking up tobacco use.

Figure 3: Percentage of current tobacco users (smoking and smokeless) among youth (boys) in selected Member States of the South-East Asia Region



[Source: Global Youth Tobacco Survey (GYTS); Bangladesh (2013), Bhutan (2013), Maldives (2011), India (2009), Indonesia (2014), Nepal (2011), Myanmar (2016), Sri-Lanka (2015), Thailand (2015), Timor-Leste (2013)]
 Available from: http://www.searo.who.int/tobacco/documents/gyts_regional_brochure_2014_a4_size.pdf
 [Note: The order of the above countries is based on total prevalence of tobacco use]

Figure 4: Percentage of current tobacco users (smoking and smokeless) among youth (girls) in selected Member States of the South-East Asia Region



[Source: Global Youth Tobacco Survey (GYTS); Sri-Lanka (2015), Bangladesh (2013), Myanmar (2016), Indonesia (2014), Maldives (2011), Thailand (2015), India (2009), Nepal (2011), Bhutan (2013), Timor-Leste (2013)]
 Available from: http://www.searo.who.int/tobacco/documents/gyts_regional_brochure_2014_a4_size.pdf
 [Note: the order of the above countries is based on total prevalence of tobacco use]

Understanding the Sustainable Development Goals (SDGs)

The year 2015 marked the transition from the Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs), which is an unprecedented and far-reaching roadmap to transform the world by 2030.

Sustainable development, as defined by the World Commission on Environment and Development, is: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Owned by every country, the Sustainable Development Goals form a blueprint for satisfying the needs of the present by overcoming constraints and based on social inclusion, shared prosperity and environmental stewardship. Understanding the fundamental role of health in development, centred on Goal 3 (ensure healthy lives and promote well-being for all at all ages) but linked to all other goals, is a prerequisite for successful collective action on the social, economic and environmental determinants of health.

TABLE 1: Transition from MDGs to SDGs (Sustainable Development Goals which are an extension of MDGs and some newer goals)

MDGs – An unfinished agenda	SDGs – An extension of MDGs	SDGs – New agenda
MDG 1 – To eradicate extreme poverty and hunger	SDG 1 – End poverty in all its forms everywhere	SDG 6 – Ensure access to water and sanitation for all.
	SDG 2 – End hunger, achieve food security and improved nutrition and promote sustainable agriculture	
MDG 2 – To achieve universal primary education	SDG 4 – Ensure inclusive and quality education for all and promote life-long learning	SDG 7 – Ensure access to affordable, reliable, sustainable and modern energy for all.
MDG 3 – To promote gender equality and empower women	SDG 5 – Achieve gender equality and empower all women and girls	SDG 8 – Promote inclusive and sustainable economic growth, employment
MDG 4 – To reduce child mortality	SDG 3 – Ensure healthy lives and promote well-being for all at all ages	SDG 9 – Build resilient infrastructure, promote sustainable industrialization and foster innovation
MDG 5 – To improve maternal health	(3.a) Strengthen implementation of Framework Convention on Tobacco Control	SDG 10 – Reduce inequality within and among countries
MDG 6 – To combat HIV/AIDS, malaria and other diseases		SDG 11 – Make cities inclusive, safe, resilient and sustainable

MDGs – An unfinished agenda	SDGs – An extension of MDGs	SDGs – New agenda
MDG 7 – To ensure environmental sustainability	SDG 12 – Ensure sustainable consumption and production patterns	SDG 16 – Promote just, peaceful and inclusive societies.
	SDG 13 – Take urgent action to combat climate change and its impacts	
	SDG 14 – Conserve and sustainably use the oceans, seas and marine resources	
	SDG 15 – Sustainably manage forests, combat desertification, halt and reverse land degradation	
MDG 8 – To develop a global partnership for development	SDG 17 – Revitalize the global partnership for sustainable development	

Sustainable Development Goals (SDGs) are viewed as an extension of MDGs and a post-2015 agenda to fight against poverty and hunger; while protecting the human rights of people, ensuring inclusive and sustainable development and healthy lives. The SDGs include a list of 17 goals and 169 targets having universal application and devoted to the core concerns of the new agenda for sustainable development. All countries are expected to be guided by Sustainable Development Goals (SDGs) while preparing policies and plans for the next 15 years.

Figure 5: WHO FCTC is a key element of sustainable development



Tobacco Control for sustainable development

Every year, 31 May is observed as World No Tobacco Day (WNTD) by WHO and partners, highlighting the health and developmental risks associated with tobacco use and thus advocating for effective policies to reduce tobacco consumption. The theme of World No Tobacco Day 2017 is “Tobacco – a threat to development”.

Realizing the threat posed by tobacco to overall development, this document highlights the opportunities tobacco control offers to support efforts to implement the 2030 United Nations Agenda for Sustainable Development and its related Sustainable Development Goals (SDGs), also known as the “Global Goals”.

A detailed look at the entire chain of growing, production, sale and consumption of tobacco shows inter-relations extending far beyond the health arena. There are many sectors outside the health sector which are important stakeholders for the prevention and control of tobacco. Various development issues are linked to tobacco in one way or the other. This document also reviews the links between tobacco and various development issues under the overall umbrella of sustainable development goals and thus places tobacco control at the centre of sustainable development.

There are direct and indirect impacts of tobacco use on all aspects of development. Tobacco use may impair development directly by imposing health-care costs for the treatment of illnesses caused by both tobacco use and exposure to second-hand smoke (SHS); and indirectly, through the loss of productivity, damage to environment, and trade-offs from food, education and health. While a rapid increase in tobacco consumption might raise gross domestic product (GDP) in the short term through both increased private expenditures on tobacco and higher public spending financed by higher tobacco tax revenues, such an increase would be offset by a subsequent rise in morbidity, disability and mortality among middle-aged men and women at the peak of their skills and experience, thus causing overall loss of productivity. The further impact of tobacco-related illnesses on productivity would thus have an overall negative effect on a nation’s welfare and economic development. This impact is more pronounced in low- and middle-income countries where health services and social security systems are under-developed.

The document is divided into three sections to discuss the impact of tobacco use (direct and indirect) on various aspects of sustainable development, its linkage to SDGs and opportunities offered by tobacco control to achieve various SDGs.

Section 1 discusses tobacco use and SDG 3 and its targets specific to health issues.

Section 2 discusses SDG goals which are more directly related to health.

Section 3 discusses other SDGs that are indirectly related to health.

Figure 6: Targets directly and indirectly related to the health goal (SDG 3)



Section 1 – Tobacco and SDG 3

*SDG 3 – Ensure healthy lives
and promote well-being for
all at all ages*

Tobacco and healthy lives

Sustainable Development Goal 3 (SDG3) relates to health: “Ensure healthy lives and promote well-being for all at all ages”. The goal encompasses a breadth of issues including maternal and child health, communicable as well as noncommunicable diseases, substance abuse, road traffic accidents, sexual and reproductive health, access to health care services, health hazards due to environmental pollution, tobacco control, research and development of vaccines and medicines, health workforce, and risk reduction by early warning systems (UN 2015).

This section discusses the relationship of tobacco use with various health-specific targets of SDG3. It also explains how tobacco control measures can support the achievement of various targets under the goal.

Tobacco and SDG3 target and goals

The South-East Asia regional maternal mortality rate of 164 per 100 000 and under-five mortality rate of 43 per 1000 are cause for concern and need imperative attention. The South-East Asia regional neonatal mortality rate was 24/1000 in 2015, which was also a poor indicator. Thus it is very important to address the problem of high neonatal and under-5 mortality rates in developing countries (WHO 2016). Several studies have concluded that toxic chemicals such as polycyclic aromatic hydrocarbons (PAHs) and nitrosamines present in tobacco smoke are responsible for adverse birth outcomes in pregnant women exposed to tobacco smoke, either directly (self-smoking) or during passive smoking (exposure to SHS) (USDHHS 2014). Tobacco use among women has implications on the SDG targets 3.1 and 3.2; thus it is crucial to address the problem of tobacco use among women during pregnancy and post pregnancy period.

Second-hand smoke (SHS) exposure has been said to adversely affect reproductive system development and function at every stage of life. During the preconception period, second-hand smoke exposure causes imbalance of hormones in women and affects

female fertility. Maternal exposure to second-hand smoke during pregnancy badly affects the development of fetus and is a risk factor for spontaneous abortion and congenital malformations. SHS exposure to infants and children could lead to compromised physical and cognitive development (USDHHS 2006). The adverse outcomes of second-hand smoke exposure could be felt more severely in infants and children as compared with adults; and thus it becomes very important to protect women and children from the exposure to SHS.

Tobacco use also increases the risk of tuberculosis, HIV, noncommunicable diseases (cancers, CVDs and chronic respiratory diseases), reproductive diseases (impotency among men) and other illnesses among men, women and children. Evidence shows that tobacco use is associated with number of health problems and causes diseases and disability to almost every organ of the human body (USDHHS 2014).

Table 2 discusses the association between tobacco use and selected targets of SDG 3; and suggests possible tobacco control interventions to achieve these targets.

Table 2: *The association between tobacco and selected SDG 3 targets and suggested tobacco control interventions*

SDG 3 “Ensure healthy lives and promote well-being for all at all ages”		
<i>The goals within a goal: Health targets for SDG 3</i>		
Target	Association with tobacco	Tobacco control interventions to help target achievements
3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100 000 live births.	<ul style="list-style-type: none"> • The South-East Asia regional maternal mortality rate is 164 per 100 000. • Smoking leads to ectopic pregnancy, pre-term labour, spontaneous abortion, and pregnancy loss; increasing the risk to the lives of pregnant women. 	<ul style="list-style-type: none"> • Recording use of tobacco (both smoking and smokeless tobacco) by pregnant women and exposure to second-hand smoke in antenatal clinics. • Offering tobacco cessation services, especially “Brief Advice” (to quit) to pregnant women using tobacco and awareness generation on harmful effects of second hand smoke on unborn baby (Article 12 and 14 of WHO FCTC).

Target	Association with tobacco	Tobacco control interventions to help target achievements
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births.	<ul style="list-style-type: none"> • The South-East Asia regional under-5 mortality rate is 43 per 1000. The regional neonatal mortality rate is 24 per 1000 (2015). Both are poor indicators. • Tobacco smoke leads to increased neonatal and perinatal mortality • Effects of tobacco use by pregnant mothers on pregnancy outcomes include low birth weight (LBW), pre-term babies, stillbirths and birth defects. • SIDS (sudden infant death syndrome) occurrence rises in cases of smoking during pregnancy. 	<ul style="list-style-type: none"> • Warning against tobacco use (Article 11 of WHO FCTC) • Offering tobacco cessation services, especially “Brief Advice” during antenatal, natal and postnatal period (Article 14 of WHO FCTC). • Raise tax on tobacco to reduce demand (Article 6 of WHO FCTC) • Implement smoke free policies (Article 8 of WHO FCTC) • Ban advertising, promotion and sponsorship of tobacco (TAPS) (Article 13 of WHO FCTC) • Awareness generation on harmful effects of exposure to second-hand smoke (Article 12).
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases.	<ul style="list-style-type: none"> • The South-East Asia Region accounts for 45.6% of the global burden in terms of TB incidence. There are nearly 3.5 million persons living with HIV/AIDS in the SEA Region, the second highest burden after sub-Saharan Africa. • Smoking substantially increases the risk of TB (by more than two and a half times) and TB deaths. • More than 20% of global incidence of TB may be attributable to tobacco. • There is an increased risk of TB relapse or recurrence in tobacco users/ smokers as compared with non-users. • People living with HIV who smoke have poor HIV treatment outcomes and are also likely to suffer complications from HIV medication than non-smokers. • Smoking doubles the risk of death for patients taking anti-HIV therapy. • Use of very high levels of pesticides for tobacco growing makes mosquitoes resistant and thus spreads insect-borne diseases such as malaria. 	<ul style="list-style-type: none"> • Recording use of tobacco (both smoking and smokeless) in tuberculosis and HIV/AIDS patients. • offering tobacco cessation Services, especially “Brief Advice” to all registered TB patients who are receiving DOTS and patients of HIV/AIDS on treatment (Article 14 of WHO FCTC). • Coordinating national TB and HIV/AIDS programmes with tobacco control programmes. • Promote and enforce smoke-free policies, particularly where TB and HIV/AIDS services are delivered (Article 8 of WHO FCTC). • Integrate “Brief Advice” into TB and AIDS programme activities. • The primary health-care workers, DOTS providers, HIV/AIDS workers/counselors can be trained to provide “Brief Advice” for tobacco cessation (Article 14 of WHO FCTC). • Find Alternative livelihood to tobacco growing (Article 17 of WHO FCTC).

Target	Association with tobacco	Tobacco control interventions to help target achievements
3.4 By 2030, reduce by one third premature mortality from noncommunicable diseases (NCDs) through prevention and treatment and promote mental health and well-being.	<ul style="list-style-type: none"> • NCDs are the number one killer in the SEA Region and account for almost 8.5 million deaths each year. One third of these deaths are premature. • Tobacco is one of the most common preventable cause of death and a major risk factor for main NCDs including, <ul style="list-style-type: none"> – cardiovascular diseases and stroke, – cancers, – diabetes, and – chronic respiratory diseases. 	<ul style="list-style-type: none"> • Raise tax on tobacco to reduce demand (Article 6 of WHO FCTC) • Integrating tobacco prevention and control with NCD action plans and monitoring the implementation. • Training NCD counsellors in “Brief Advice” (Article 14 of WHO FCTC).
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.	<ul style="list-style-type: none"> • Tobacco is a gateway for other substance abuse. Nicotine contained in tobacco is one of the highly addictive substances. • Cigarette smoking and alcohol raise the risk for later use of illicit drugs like marijuana and cocaine. 	<ul style="list-style-type: none"> • Tobacco dependence treatment programmes should be integrated with drugs/ substance and alcohol de-addiction programmes. • Warn against dangers of tobacco use (Article 11 of WHO FCTC) • Capacity-building in tobacco cessation (Article 14 of WHO FCTC).
3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.	<ul style="list-style-type: none"> • Tobacco use leads to impotency and infertility among men. • Tobacco use during pregnancy leads to LBW and pre-term babies, premature births, birth defects and pregnancy loss. • Second-hand smoke exposure adversely affects reproductive system development and function at every stage of life. It also causes hormonal imbalance among women leading to infertility. 	<ul style="list-style-type: none"> • Warn against dangers of tobacco use (Article 11 of WHO FCTC) • Create smoke free environments (Article 8 of WHO FCTC) • Tobacco cessation services, especially “Brief Advice” should be offered as part of reproductive health services at all levels of the health-care delivery system (Article 14 of WHO FCTC).

Target	Association with tobacco	Tobacco control interventions to help target achievements
3.a Strengthen the implementation of the WHO Framework Convention on Tobacco Control in all countries, as appropriate.	WHO FCTC is an implementation target.	<p>The implementation of the WHO FCTC is a key element of the 2030 Agenda for Sustainable Development.</p> <p>WHO FCTC is the first global health treaty negotiated under the auspices of WHO. One of the most widely embraced treaties in United Nations history, it has given a new legal dimension to international health co-operation. The WHO FCTC thus came out as a multilateral treaty ratified by 180 Parties, which legally bind its member nations to exert tobacco control measures including laws to protect people from second-hand smoke exposure.</p>
3.b Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines.	Finances raised by increasing the taxes on tobacco and tobacco prices can improve access to affordable essential medicines and vaccines for universal health coverage in the countries (WHO).	<ul style="list-style-type: none"> • Raise tax on tobacco to reduce demand. • Using earmarked tobacco taxes for strengthening research and health systems to combat communicable and noncommunicable diseases (Article 6 of WHO FCTC).

Target	Association with tobacco	Tobacco control interventions to help target achievements
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	<p>Air pollution is the world's biggest environmental risk to health and must be addressed on a priority basis as it continues to rise, causing long-lasting disease and illness in addition to causing nearly 800 000 deaths every year in the SEA Region.</p> <p>Tobacco smoke contains nearly 7000 harmful chemicals. Tobacco leads to environmental pollution in several ways e.g. second-hand smoke, smoke from curing tobacco, cigarette butts (cellulose) and solid waste generated by plastic packaging of smokeless tobacco products.</p> <p>Moreover tobacco growing leads to soil and water pollution in view of large-scale use of chemical fertilizers, insecticides and pesticides which leach into the ground water.</p>	<ul style="list-style-type: none"> • Implement, comprehensive smoke free policies (Article 8 of WHO FCTC). • Effective implementation of Article 18 of the WHO FCTC which addresses concerns regarding the serious risks posed by tobacco growing to human health and environment. • Alternative livelihoods to tobacco growing (Article 17 of WHO FCTC).
3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing states.	Raising the tobacco taxes and prices, and using earmarked taxation for strengthening the health financing can go a long way to support health systems and health resources (WHO).	<ul style="list-style-type: none"> • Raise tax on tobacco to generate additional resources. • Use of earmarked taxes and sin tax on tobacco to raise resources for health sector which could also include health workforce (Article 6 of WHO FCTC).
3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.	Tobacco is a big risk factor for communicable diseases such as TB and HIV and for NCDs leading to enormous disease, disability and deaths.	Effective implementation of WHO FCTC (the full treaty) will go a long way in reduction and management of global health risks.

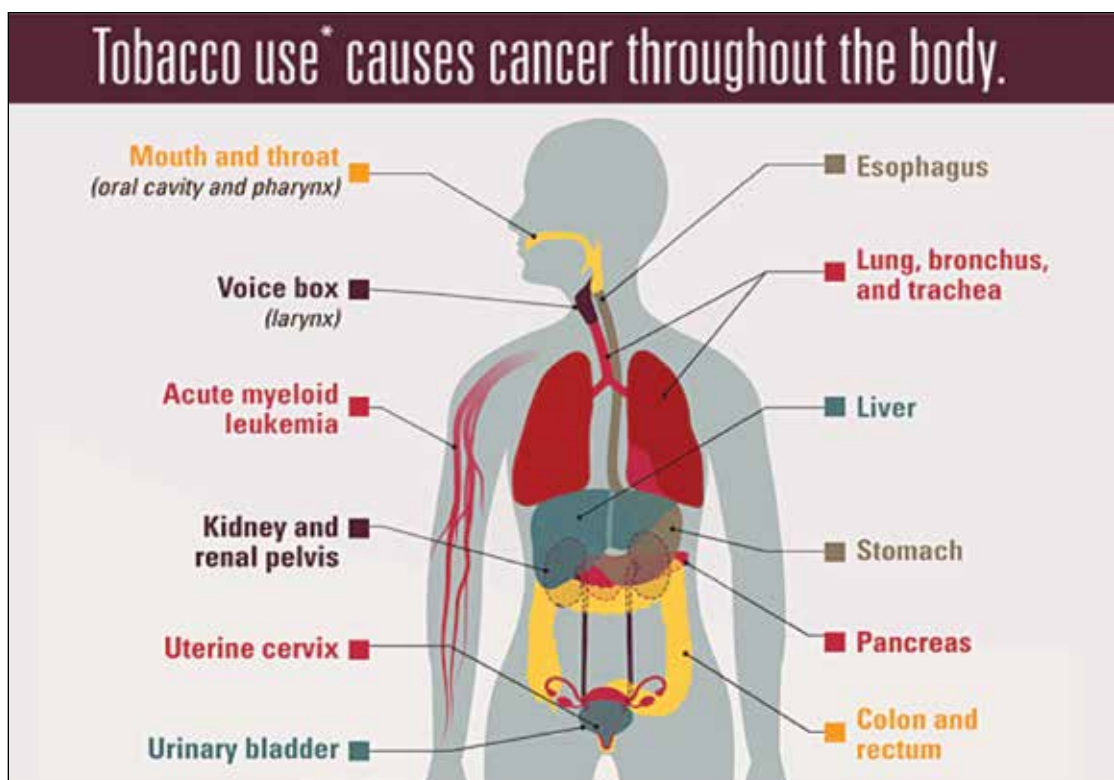
Figure 7: Harmful effects of tobacco on the human body



Figure 8: Tobacco use and exposure to second hand smoke lead to serious illnesses



SHS is harmful to health of babies



Section 2 – Tobacco and SDGs related to health (SDGs 1, 2, 4, 5 and 6)

SDGs 1, 2, 4, 5 and 6 are more directly related to SDG 3.

Tobacco and poverty

SDG 1 – End poverty in all its forms everywhere

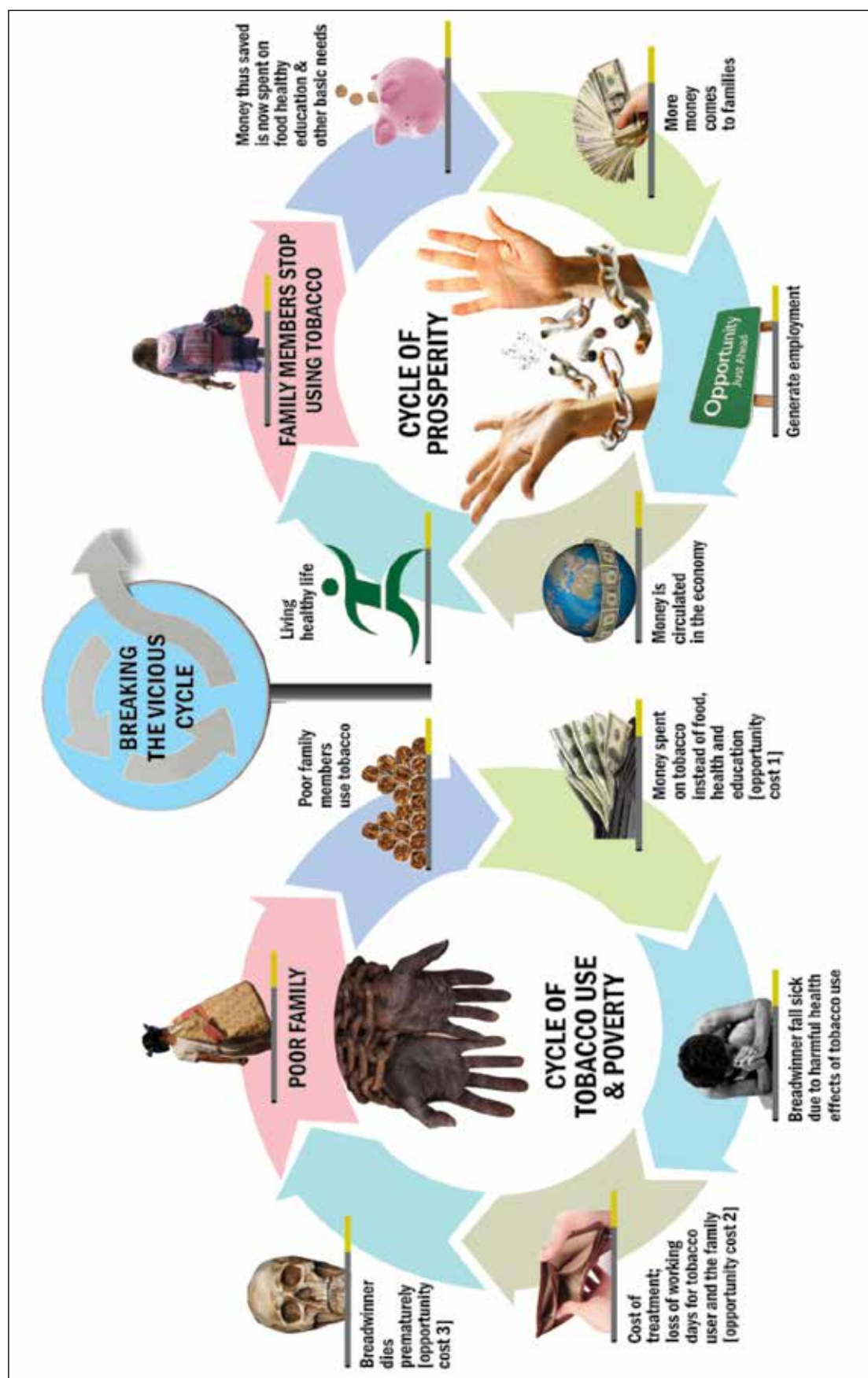
Tobacco use directly fuels poverty. It channels resources away from other basic needs like food, education and health.

The evidence shows that tobacco use is highest among the poor (WHO 2011). The WHO World Health Survey data for 48 low- and middle-income countries showed that the poorest men were more than 2.5 times more likely to smoke than the richest men in many countries (Hosseinpoor et al 2012). Tobacco is inextricably linked with poverty. The ratio of tobacco expenditure to total income is highest among the lowest income levels. Since their income is meagre, their tobacco expenditure though low in absolute terms, has great impact (WHO 2008). . In Indonesia, households with smoker spent more money on tobacco products as compared to that spent on buying food and expenditure on health and education (Barber S et al 2008).

Expenditure on tobacco, particularly cigarettes, represents a major burden for impoverished Bangladeshis. The poorest are twice as likely to smoke as the wealthiest (Efroymson and Ahmed 2000). The smuggling of tobacco products also leads to loss of millions of dollars in tax revenue (ASH 2000). Furthermore the diseases caused by tobacco consumption such as cancers and cardiovascular diseases are associated with high costs of treatment which takes away scarce funds from primary health care further dilapidating the health-care systems (Laura 2016).

Illnesses caused by tobacco use also lead to loss of productivity and thus loss of economic growth. Employees who fall sick due to adverse effects of tobacco use cannot go to work or, even if they work, the quality of their work is effected due to their illness. Tobacco use leading to premature deaths results in loss of productive workforce of a nation. The families of tobacco users, who suffer from tobacco-related illnesses, bear the costs of treatment and care. They have to lose their wages from work as family members stay at home or in hospital for the care of the diseased. Also, money is spent for buying expensive medicines and for paying huge hospital bills. Most of the time, families have to sell property or take loans for the treatment of cancers caused by tobacco use. Thus families of tobacco users become poorer and get burdened over huge debts (Beyer et al 2001).

Figure 9: Tobacco and poverty: a vicious cycle



Expenditure on tobacco products only benefits multinational and transnational tobacco companies. This money could be channelized towards providing basic necessities to people like food, education, housing, and health care; and could benefit the national economies in the long run. Thus tobacco control is highly cost-effective and is economically beneficial to all countries, especially low- and middle-income countries (World Bank 1999). Tobacco control is not a threat either to farmers or to poor workers engaged in tobacco industry. The money saved by stopping tobacco consumption will come in economic circulation rather than going into the pockets of rich multinational companies, and this money will ultimately generate employment enhancing economic growth of the countries.

Tobacco and food security

SDG 2 – End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Globally about 120 countries cultivate tobacco on around 4.3 million hectares of arable land, thus producing about 7.5 million tons of raw tobacco annually. The majority of this (more than 90 per cent) is produced in the Global South (FAOSTAT 2014). Tobacco being a cash crop is an attractive choice for farmers to grow. Also it is less perishable as compared with other agricultural crops and thus assures a certain minimum income. The cultivation of tobacco crop is also encouraged by the tobacco industry. Tobacco companies extend technical support and loans to farmers for growing tobacco crop.

The South-East Asia Region is a major tobacco growing region in the world. India and Indonesia are among the world's five largest growers of tobacco. Tobacco is also grown in Bangladesh, DPR Korea, Myanmar, Sri Lanka and Thailand.

The tobacco leaf production by SEA Region countries is given in table below.

Table 4: Amount of tobacco leaf production in different SEA Region countries

S.No	Country	Tobacco leaf production (metric tons)
1	India	820 000
2	Indonesia	260 800
3	Bangladesh	85 419
4	DPR Korea	80 000
5	Thailand	69 000
6	Myanmar	29 000
7	Sri Lanka	3 620

(Source : Tobacco Agriculture and Trade Factsheets, 2012 (WHO and UNCTAD))

India, Bangladesh and Thailand are the largest exporters of tobacco leaves in the world.

The cultivation of tobacco is done at the cost of other food crops which might be grown on the utilized agricultural land. Thus tobacco farming directly harms food security.



Small children working in tobacco fields

The short-term prosperity of tobacco farmers is at the cost of many ruinous long-term outcomes of tobacco farming. Ultimately, the main benefits of tobacco cultivation go to transnational companies whose annual profits are more than even the GDP of many low- and middle-income countries. In 2002, the combined profits of Philip Morris, Japan Tobacco and British American Tobacco were US\$ 121 billion (FCA factsheet #1). The tobacco farmers are like pawns in the hands of the billion-dollar tobacco industry. In the long run tobacco farmers remain entrapped in the

chronic cycle of poverty where the short-term earnings from tobacco crop only make them live hand-to-mouth.

Tobacco farming is also hazardous to the health of tobacco farmers and the environment. Tobacco farmers and their families including children who handle wet tobacco leaves develop green tobacco sickness (GTS). GTS symptoms include nausea, vomiting, weakness, headache, dizziness, abdominal cramps, breathing difficulties and fluctuations in heart rate and blood pressure. The medical expenditures of tobacco farmers are more than that of non-tobacco farmers (SEATCA 2008).

Tobacco use is also higher in tobacco growing families than other farming families. Tobacco cultivation is labour intensive and the entire farming household including children are involved in farming-related activities, exposing them to pesticides-related as well as tobacco-related illnesses such as cancers, immune dysfunctions and nervous malfunctions.



Tobacco use is higher among tobacco growers

Many countries, including the world's largest producers of tobacco, are taking steps to find economically viable alternatives to tobacco growing. Several economically sustainable alternatives to tobacco growing have been identified in studies in various countries all over the world including South-East Asia.

There is a need to support tobacco farmers by providing them alternatives to enable a shift from dependence on tobacco crop to independence for cultivating other food crops.

According to studies conducted by the Central Tobacco Research Institute (CTRI) India, there are economically viable alternative crops to tobacco depending on climatic conditions, soil type and availability of water supply. CTRI has also presented economic feasibility of alternative crops on the basis of cost-benefit ratios (Kaur J et al 2014).

Bangladesh also has policies to encourage the production of alternative crops. Article 12 of the Tobacco Control Bill, Bangladesh, 2005 relates to the commitment to encourage the production of alternative crops in place of tobacco.

Figure 10: *Alternative crops to tobacco are a better choice*



Tobacco and education

SDG 4 – Ensure inclusive and quality education for all and promote life-long learning

Tobacco farming and tobacco industry involve child labour, thus depriving educational opportunities to children engaged in tobacco growing and tobacco products manufacturing. Right from tobacco farming, curing tobacco leaves, to manufacturing such as *bidi* rolling and the smokeless tobacco industry; children work as manual labourers at every step. Instead of going to school, children of tobacco farmers help their parents in farming activities. Similarly,



Tobacco leads to loss of educational opportunities for children engaged in the industry

the *bidi* industry is one of the most exploitative industries in India where women and children roll *bidis* at home. These children are deprived of any learning or educational opportunity and eventually get pushed even deeper into the endless cycle of poverty poverty (Human Rights Watch 2014).

Even the children who do not work in the tobacco industry but whose parents are tobacco-users get deprived of good educational opportunities because of two reasons: The household income which should be spent on the education of children gets diverted to buy tobacco products. Secondly, premature death of any of the parents due to tobacco use leaves the children unsupported and deprived of education. In 2005, Indonesian households with smokers spent just 3.2 per cent of their household income on education as compared with 11.5 per cent on tobacco products (Barbers et al 2008).

In some countries, it was seen that schools in villages were located in the vicinity of tobacco fields and the smoke coming out from tobacco curing barns harmed the health of schoolchildren (Otanez 2008).

Tobacco companies also sponsor schools in some places as part of corporate social responsibility (CSR) initiatives and thus target the new generation as potential customers. Such tactics of the tobacco industry are extremely dangerous as these can ruin the future of children (Tobacco Free Kids 2011).

Tobacco and gender

SDG 5 – Achieve gender equality and empower all women and girls

The WHO World Health Survey data for 48 low- and middle-income countries showed varied prevalence of tobacco smoking among women. In 20 low- and middle-income countries, the poorest women were statistically more likely to smoke as compared with the richest women (Hosseinpoor et al 2012).

In 2012, about 17 percent of women in developed nations and 4 percent of women in developing nations were daily smokers (Ng M et al 2014).

Use of smokeless tobacco is high among women in SEA Region countries. The tobacco companies are targeting women of developing countries by introducing newer and cheaper products such as flavoured chewing tobacco in small pouches (Global Youth Tobacco Survey Collaborating Group 2003).

Although tobacco use rates among women in Asian countries are found to be less compared with men, the women also suffer when men spend household incomes in purchasing tobacco instead of food and other basic needs (Efroymson and Ahmed 2000).

Tobacco companies mislead women by projecting cigarette smoking by women as being modern, fashionable and empowering. Specific products such as “slim cigarettes” and “flavoured tobacco” are made to attract women. Women when entrapped in this mirage not only lose their health but also lose their freedom and economic independence by being unproductive due to illnesses caused by tobacco use (Amos and Haglund 2000).

Women’s health is also effected by inhaling second-hand smoke as male members of the household smoke in crowded living spaces and women are unable to express any objection. Thus women are unable to protect themselves and their children from the harmful health effects of second-hand smoke (Wipfli et al 2008). Second-hand smoke is also harmful for pregnant women and may lead to miscarriage, premature delivery, still birth, low birth weight or congenital abnormalities, as described previously (Leonardi-Bee, Britton, & Venn 2011). Women may also suffer from other reproductive consequences such as infertility and ectopic pregnancy. Lactating mothers may produce less milk or may release toxins in milk (ibid).



Slim cigarettes are marketed to attract women



Smoking is glamorized by tobacco industry



Smoking by pregnant mother harm unborn babies



Zarda, a flavoured smokeless tobacco product prevalent in India and Bangladesh

The tobacco companies see a huge market potential in the women of South-East Asia as this



Women rolling bidis (hand-made cigarettes) in India

segment was culturally prohibited from using tobacco till traditionally. But now, by projecting cigarette smoking among women as being modern, successful, fashionable and empowering, the tobacco companies want to encash this naïve market segment (Amos and Haglund 2000). The ban on tobacco advertising in some countries is able to protect women to some extent. Movies showing lead actors smoking cigarettes send a wrong message to women. Smoking in movies needs regulation, e.g. tobacco control law in India regulates depiction of smoking scenes (WHO 2013).

Women are also employed in large numbers in the tobacco industry and get exploited in various ways. For example, the *Bidi* industry and smokeless tobacco industry in India is highly unorganized and based on home-based work done by women and their children. There are *bidi* rolling villages in India where women and children in each house roll *bidis* most of the day and earn minimal wages. The packaging of smokeless tobacco is also done by women in their homes. These women and children are exploited by middlemen by being refused payments and discriminated discrimination against (Aghi and Gopal 2001).

Tobacco and access to water and sanitation

SDG 6 – Ensure access to water and sanitation for all

Tobacco farming consumes large amount of water, thus creating shortages of water for other purposes such as drinking. According to a study, tobacco cultivation consumes about 2925 cubic metres of water per ton of raw tobacco which is more than twice the water required for corn (Mekonnen and Hoekstra 2011). The production of cigarettes also requires a huge quantity of water. As estimated by a tobacco company, the production of 676 billion cigarettes in 2013 consumed about 2.46 million cubic metres of water (BAT 2014). Tobacco farming and production also pollutes ground water and waterways and thus drinking water. Many harmful pesticides and insecticides used on tobacco crop flows down to waterways and also percolates down to groundwater. The production of tobacco products releases harmful chemicals in to the waterbodies and thus pollutes drinking water. The non-biodegradable waste produced after tobacco consumption, e.g. cigarette butts, smokeless tobacco packs and pouches also pollute waterbodies and waterways (Green et al 2014).

Figure 11: Threat of tobacco to water at various stages

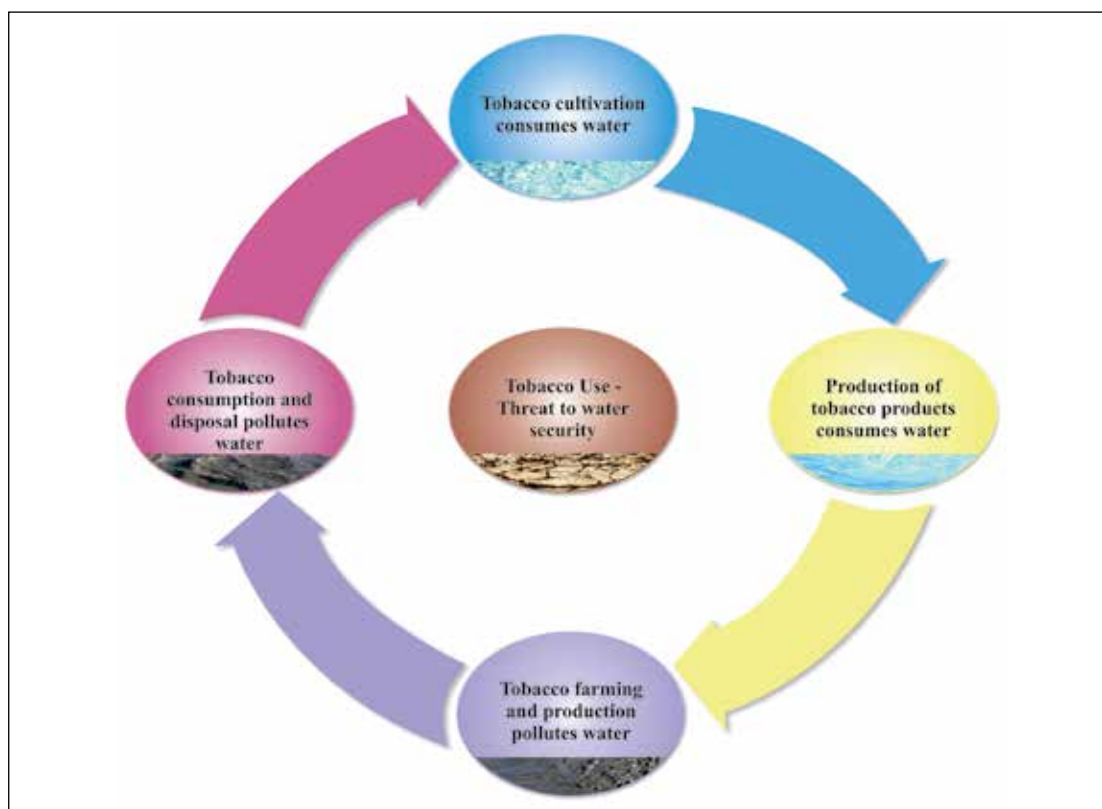


Table 3: The association between tobacco and the health-related SDGs (1, 2, 4, 5 and 6) and suggested interventions

SDG	Association with Tobacco	Tobacco control interventions to help target achievement
SDG 1: End poverty in all its forms everywhere.	<ul style="list-style-type: none"> Vicious cycle of poverty and tobacco use: tobacco use is more prevalent among low socioeconomic classes. Money spent on tobacco is not available to be spent on food, education and health. Tobacco industry traps farmers into growing tobacco and a debt-cycle. 	<ul style="list-style-type: none"> Multisectoral approach to end poverty. Prevention and control of tobacco use through WHO FCTC.
SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.	<ul style="list-style-type: none"> Vicious cycle of poverty and tobacco use. Trade-offs between tobacco crop and other food crops. 	<ul style="list-style-type: none"> Raise tax on tobacco to reduce demand (Article 6 of WHO FCTC) Replace tobacco crops by growing food and related crops (Alternative livelihoods for tobacco growers – Article 17 of WHO FCTC).

SDG	Association with Tobacco	Tobacco control interventions to help target achievement
SDG 4: Ensure inclusive and quality education for all and promote life-long learning.	<ul style="list-style-type: none"> • Tobacco use leads to channelization of family resources towards buying tobacco products instead of spending it on education of children. • Tobacco companies' open schools as an investment and also as a CSR activity (corporate social responsibility); which is conflict of interest as their products are ultimately harmful for the youth. • Children are employed to work in the tobacco farms and tobacco manufacturing such as <i>bidi</i> rolling industry in India. These children are deprived of education opportunities are prone to exploitation. 	<ul style="list-style-type: none"> • Raise tax on tobacco to reduce demand (Article 6 of WHO FCTC). • Promote tobacco cessation to save funds for investing in education of children (Article 14 of WHO FCTC). • Tobacco companies should not be allowed to invest in education sector as their CSR activities (Article 5.3 of WHO FCTC).
SDG 5: Achieve gender equality and empower all women and girls.	<ul style="list-style-type: none"> • Targeting Women by projecting tobacco use by women as being glamorous, independent and fashionable. • Flavoured tobacco products and misnomers like "Slim" are used to attract women. • Women are involved throughout the life-cycle of tobacco i.e. in farming, curing of tobacco, manufacturing of tobacco products such as <i>bidi</i> rolling, smokeless tobacco packaging, etc. The conditions of women in the tobacco industry are miserable due to exploitative nature of the industry. 	<ul style="list-style-type: none"> • Regulate flavours in tobacco products to reduce their attractiveness (Article 9 of WHO FCTC). • Graphic health warnings on tobacco products to warn against the dangers (Article 11 of WHO FCTC). • Ban on tobacco advertising, promotion and sponsorship (TAPS) targeting women (Article 13 of WHO FCTC). • Awareness generation regarding industry tactics to lure girls and women into initiating tobacco use (Article 12 of WHO FCTC).
SDG 6: Ensure access to water and sanitation for all.	<ul style="list-style-type: none"> • Tobacco farming, curing and manufacturing consumes lots of water. • Tobacco growing, manufacturing, consumption and disposal pollutes water. 	<ul style="list-style-type: none"> • Implement WHO MPOWER package to reduce demand of tobacco. • Implementation of Articles 17 and 18 of WHO FCTC to save water resources and prevent pollution of natural resources.

Tobacco and SDGs outside the health sector (SDGs 8, 10, 11, 14, 15, 16 and 17)

SDGs 8, 10, 11, 14, 15, 16 and 17 are indirectly related to SDG 3.

Tobacco and economic growth and employment

SDG 8– Promote inclusive and sustainable economic growth, employment and decent work for all

As per estimates, the tobacco industry costs national economies around US\$ 750 billion to US\$ 1.5 trillion every year (Callard 2015). The lost economic opportunities due to tobacco use are severe as the majority of tobacco-related deaths occur during the population's prime productive years, i.e. ages 30–69 (Ng M et al 2014). The money spent on negative externalities of tobacco products is much more than the revenue earned by taxes on tobacco products.

Figure 12: Tobacco costs national economies



The global tobacco market is dominated by two leaf tobacco merchants (Universal Corporation and Alliance One International) and four transnational cigarette companies (Philip Morris International, British American Tobacco, Japan Tobacco International and Imperial Tobacco Group). These global merchants earn all the profits while the costs of production and consumption are borne by low- and middle-income countries (Chitanondh 2000).

National estimates of the costs of tobacco use are available for some countries in the South-East Asia Region. In Bangladesh, a study concluded that tobacco use consumed a significant proportion of household incomes, resulting in lower available resources for food and education especially in low-income households. The study reported that about 5.5% of household expenditures were for tobacco-induced diseases, which further accounted for 41% of households' total direct expenditure on health care (Efroymson et al 2001). Thus total (direct + indirect) costs of tobacco in Bangladesh were estimated at US\$ 855.3 million; out of which US\$ 346.1 million was spent on direct health care and US\$ 411.7 million was spent on indirect morbidity and mortality from tobacco use. This total cost exceeded the total tax revenue and wage labour earned from tobacco production and consumption.

In India, a study commissioned by the government estimated that the total cost of tobacco attributable diseases in 2011 was US\$ 22.4 billion or 1.2% of GDP, in which the direct cost of medical treatment alone was US\$ 3.6 billion, which was 4.9% of total national medical expenditure. Indirect costs were estimated to be US\$ 18.8 billion with indirect morbidity costs of US\$ 3.1 billion and indirect mortality costs of US\$ 15.6 billion (MoHFW 2014).

In Indonesia, direct health-care cost for 11 tobacco-related diseases was estimated to be US\$ 221 million or 2.7% of total national health-care expenditures. Direct and indirect costs in total were estimated to be 2.4% of GDP (Kosen 2009).

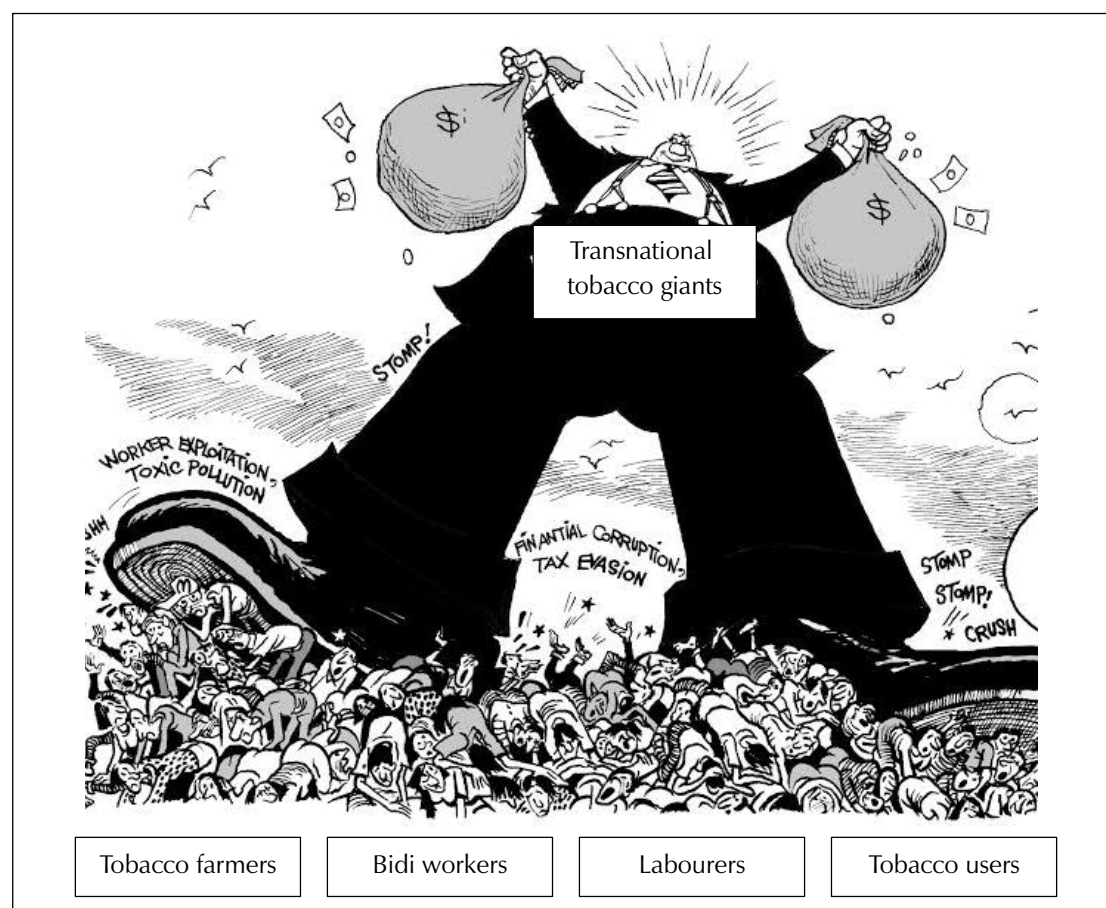
In Thailand, the estimated direct out-of-pocket cost of smoking attributable diseases was US\$ 261.3 million or 3.6% of national health-care costs which accounted for 0.1% of GDP (Leartsakulpanitch, et al 2007).

These estimates have shown that direct health-care cost of smoking in low- and middle-income countries is comparable to that in high-income countries and such high costs result in loss of economic resources which could be otherwise used for economic and social investments by the countries. The economic burden of tobacco use is well documented and is especially harmful for low- and middle-income countries which are already facing scarcity of economic resources for development. The social security systems being poorly developed in these countries, expenditures (direct + indirect) related to tobacco use put large burdens on households making them poorer (Chaloupka and Warner 2000).

SDG8 focuses on decent work for all but the tobacco industry is one of the highly exploitative industries; right from tobacco growing where debt bondage still exists under contract system of farming in some countries to the *bidi* and smokeless tobacco industry where child labour is prevalent (Leppan, Lecours and Buckles 2014). Thus inequalities generated by the tobacco industry worsens economic conditions in low- and middle-income countries resulting in negative balance of trade, exploited human capital and exploitation of resources.

Tobacco control, on the other hand, does not harm economies. The number of jobs dependent on tobacco has been falling in most countries, largely due to technological innovation and privatization of once state-owned manufacturing. Tobacco control measures will, therefore, have a modest impact on related employment, and will not cause net job losses in the vast majority of countries. Programmes substituting tobacco for other crops offer growers alternative farming options (US NCI and WHO, 2016).

Figure 13: Multinational tobacco companies oppress and exploit while making profits



Tobacco and inequality

SDG 10 – Reduce inequality within and among countries

The global health and economic burden of tobacco use is enormous and is increasingly borne by low- and middle-income countries (LMICs). Around 80% of the world's smokers live in LMICs (Jha et al 2002). The burden of tobacco use is increasingly shifting from developed to developing countries. The tobacco companies are now searching for new markets and

are targeting low- and middle-income countries by using marketing tactics like market segmentation and product differentiation (Lee et al 2012).

As discussed earlier, tobacco consumption is relatively higher in poorer sections of societies which results in wastage of larger proportions of their disposable income in purchasing tobacco products and thus widening the gulf between the rich and the poor. Tobacco use increases inequalities by making multi-billion dollar tobacco industries richer at the expense of the health of poor tobacco users who get poorer. As a consequence inequalities increase within and among countries (Pampel and Denney 2011).

The poor are largely uneducated and unaware about the harmful consequences of tobacco use as compared with the rich. Premature deaths due to tobacco use may result in the loss of primary income earners in poor families, thus making them poorer. In this way, tobacco use increases the inequalities within and among countries (Pampel and Denney 2011).

Figure 14: Tobacco industry makes huge profit while poor farmers get trapped by the industry



Tobacco and sustainable cities

**SDG 11 – Make cities
inclusive, safe, resilient and
sustainable**

Tobacco use leads to large amounts of litter, solid waste and spit which makes the cities unclean. Spit from chewing tobacco is very polluting and stains the environment making it dirty and unhygienic. In public places of developing countries where smokeless tobacco

is prevalent, it is very common to see corners, walls and stairs all stained with tobacco spit. It is a common sight to see people spitting on the roads and pavements.

The cigarette butts and smokeless tobacco plastic pouches/packets are non-biodegradable and poison the groundwater and water-supply in cities in addition to choking the sewerage systems. They also poison the flora and fauna which indirectly enter into human systems through food chain (Slaughter et al 2011).

A study in Bandarban district of Bangladesh, revealed that curing of tobacco leaves was leading to air pollution which harmed people living in nearby cities (UBINIG 2010).

Tobacco smoke is also a major source of indoor air pollution (Zhang and Smith 2003). GYTS done in SEA Region countries reveal youth getting exposed to large-scale exposure to second-hand smoke in public places and in their homes (GYTS India and Thailand 2009). To make cities inclusive, safe and resilient, it is very important to ensure smoke-free workplaces and public places with the ultimate goal to save lives by implementing comprehensive smoke free policies advocated by WHO FCTC.

Smoking is also a cause of fires in houses and residential buildings. Between 2008 and 2010, an estimated annual average of 7600 smoking-related fires occurred in residential buildings in the United States. These smoking-related fires accounted for 2 per cent of residential building fires responded to by fire departments across the nation and resulted in an average of approximately 365 deaths, 925 injuries, and US\$ 326 million in property loss each year. The term “smoking-related fires” applies to those fires that are caused by cigarettes, cigars, pipes, and heat from undetermined smoking materials (TFRS 2012). Such data in SEA Region countries is generally lacking.



Tobacco spit stains are a common site in the areas where smokeless tobacco use is prevalent.



Cigarette butts account for huge quantities of solid waste

Tobacco and the environment

SDG 14 – Conserve and sustainably use the oceans, seas and marine resources.

SDG 15 – Sustainably manage forests, combat desertification, halt and reverse land degradation.

Tobacco use leads to deforestation and environmental damage. It is estimated that 200 000 hectares of forests and woodlands globally are cut down each year for tobacco farming and curing (Lecours et al 2012). Flue curing is used for drying tobacco leaves which further uses wood and thus encourages cutting of trees. As per a global assessment, tobacco curing accounts for 1.7% of deforestation globally and 4.6% of deforestation in 66 tobacco growing developing countries (Geist 1999).



Deforestation results from cutting of trees to clear land for growing tobacco

In Bangladesh, tobacco manufacturing is responsible for 30% of deforestation (John and Vaite 2002). It has been observed in Bangladesh that tobacco farmers require about 65 000 tons of firewood each year in the district of Bandarban alone (UBINIG 2010), while in Kushtia district they have switched to burn jute sticks and rice straw as the forests have largely already vanished (Akhter, Buckles and Tito, 2014).

Trees are also cut for packaging of tobacco products. Smokeless tobacco in India is packed in small pouches and millions of such pouches are produced every year. Cigarettes also use paper as their content which is made from wood. In India, *Kaththa* is an important ingredient of smokeless tobacco products (gutkha and pan masala) and is made from the bark of khaire trees which leads to clearing of vast areas of forest land (Efroymsen 2001).

Tobacco cropping (especially tobacco monocropping) depletes the soil of its nutrients (potassium, phosphorus and nitrogen) and causes soil and water pollution due to the use of various pesticides and fertilizers. Tobacco crop requires heavy use of extremely toxic pesticides that contaminate groundwater and thus drinking water. The use of such high levels of pesticides makes the mosquitoes and flies resistant and thus spreads insect-borne diseases such as malaria (Barry 1991). Tobacco smoke also leads to indoor air pollution by releasing thousands of harmful chemicals into the air.

Manufacturing of tobacco products leads to waste production such as solvents, slurries, oils, plastics, paper, wood and toxic chemical waste (ASH 2000). The disposal of cigarette butts, tobacco pouches, packets and cartons of cigarettes and other tobacco products leads to waste generation. Lots of cigarette butts are recovered during coastal clean-up operations (Novotry and Zhao 1999). In the 2013 international coastal clean-up held in 92 countries, cigarette butts were the most common debris item found and made up to 15% of total debris (Ocean Conservancy 2013). Leachate from cigarette butts is acutely toxic to some marine and freshwater fish species, and unsmoked filters are also toxic (Slaughter et al 2011). In addition, cigarette butts act as a major health hazard to animals particularly cows in some South-Asia countries that wander freely in the streets and feed on the garbage. Small children may also pick the butts and swallow them mistakenly. Cigarette filters do not decompose for 5-7 years, thus posing great environmental hazard (Buckley 1996).

Throwing cigarette butts and burning *bidi* ends on the grass triggers forest fires. In 2010, a cigarette butt caused a fire in the Indian state of Kerala and burnt down 60 hectares of forest area (Eriksen et al 2015). There are many more such examples from different parts of the world. The impact of such forest fires is also judged by the nature of the forest destroyed. For example, it may cause economic damage by destroying timber plantations, while it is also a threat to biodiversity and natural habitat. There is loss of animal lives too in such fires.

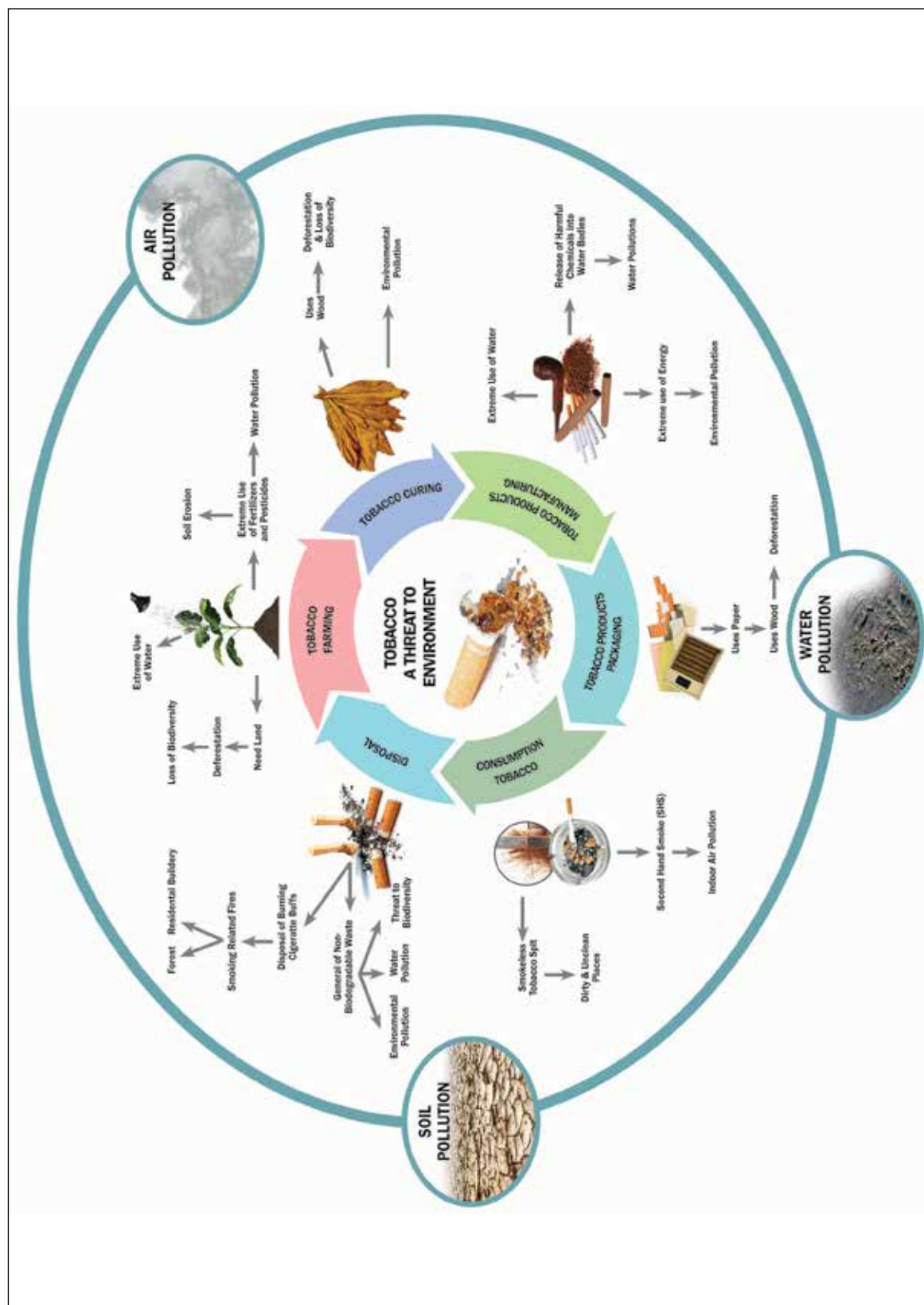


Aquatic life affected by tobacco products



Forest fire resulting from cigarettes lead to large-scale loss

Figure 15: Effects of tobacco on environment



Tobacco and inclusive societies

SDG 16 – Promote just, peaceful and inclusive societies

Justice in the context of tobacco use means giving priority to public health over the profits of tobacco companies. The tobacco industry exploits domestic and international legal systems and escape tobacco control measures in order to maintain its markets. Tobacco companies make use of bilateral trade agreements to weaken tobacco control efforts and file lawsuits against countries in WTO (World Trade Organization).

There are many such examples.

Philip Morris International (PMI) called on the International Centre for Settlement of Investment Disputes (ICSID) of the World Bank to take action against Uruguay's restrictive law on the packaging of cigarettes. The PMI is taking advantage of the 1988 investment treaty between Switzerland and Uruguay. The proceedings of ICSID are not conducted publicly and its decision can override the parliamentary decision of the Uruguay and may favour PMI over public health (unfairtobacco.org 2014).

Similarly Philip Morris Asia which is a subsidiary of PMI in Hong Kong proceeded against Australian law on plain packaging of cigarettes. The action of PMI was based on a bilateral investment agreement between Hong Kong and Australia (Martin 2013).

Several tobacco groups in Europe have brought a lawsuit against the European Union for its tobacco control directives adopted in 2014 (BBC 2014). The British tobacco company named Imperial Tobacco struck a contract with Lao PDR to limit tax on tobacco for 25 years in 2001. As a result the country suffered revenue losses of about US\$ 79.42 million for a period between 2002 and 2013 due to this unfair and unjust deal. The lost revenue could have been utilized for the sustainable development of the nation (SEATCA 2015). In 2000, the tobacco companies Philip Morris and R. J. Reynolds were accused by the European Community of smuggling and illicit trade with terrorist groups and bribing foreign public officials to obstruct tobacco control activities. The case led to a legally binding agreement that US\$ 1 billion will be paid by PMI to the European Community and the tobacco companies will also put in place measures to prevent smuggling (Joossens and Raw 2008).

Target 16.2 is to end abuse, exploitation, trafficking and all forms of violence against and torture of children. Tobacco industry is one of the most exploitative industries which involve child labour in many countries. In countries where the contract system still prevails in tobacco farming, children work in the tobacco farms as debt bondage workers. There are many examples of unjust practices against children and women in the tobacco growing and manufacturing sector. In India, child labour is very much prevalent in the *bidi* industry and smokeless tobacco industry. Most of the *bidi* rollers are women and young children.

Thus international trade agreements must address the fact that tobacco is not a commodity but is a harmful and addictive substance and the agreements should exclude tobacco to the extent possible and also should not allow investor-state lawsuits. The World Trade Organization (WTO) must prioritize health and sustainable development over trade interests.

Tobacco and global partnership

SDG 17 – Revitalize the global partnership for sustainable development

Tobacco use negatively interferes with efforts towards the achievement of sustainable development goals. That is why it becomes very important to revitalize global partnership towards the support of tobacco control and prevention of tobacco use. Various State and non-State parties share knowledge, experience and technologies for effective tobacco control. Guidelines for WHO FCTC implementation were also jointly developed by different parties and since the adoption of the WHO FCTC by different nations, various stakeholders are coming together on a global platform to curb the menace of tobacco use. WHO, World Bank, UNDP, the wider UN system and several other organizations have come together and prioritized tobacco control within the Sustainable Development Agenda. In the outcome document of the third international Conference on Financing for Development (FfD3), the UN General Assembly has endorsed the tobacco control policies and actions.

Table 4: *The association between tobacco and other SDGs (8, 10, 11, 14, 15, 16 and 17); and suggested interventions*

SDG	Association with Tobacco	Tobacco control interventions to help target achievement
SDG 8: Promote inclusive and sustainable economic growth, employment and decent work for all.	<ul style="list-style-type: none"> The resources lost on account of negative externalities of tobacco use (including health cost, economic burden and adverse effects on environment) are much more than the revenue earned from sale and export of tobacco products. Exploitative nature of tobacco industry, especially for children and women. 	<ul style="list-style-type: none"> Implement the Protocol to Eliminate Illicit Trade of Tobacco (Article 15 of WHO FCTC) Prevent and control tobacco use through implementation of WHO FCTC.

SDG	Association with Tobacco	Tobacco control interventions to help target achievement
SDG 10: Reduce inequality within and among countries.	<ul style="list-style-type: none"> • Tobacco industry has multicountry presence. • Tobacco use increases inequalities by making multi-billion dollar tobacco industry richer at the expense of the health of tobacco users who get pushed into poverty. • The burden of tobacco use is now shifting from developed countries to developing countries, which increases the inequalities among countries. • Tobacco companies are also targeting low- and middle-income countries as new markets. 	<ul style="list-style-type: none"> • Eliminate cross-border illicit trade in tobacco (Article 15 of WHO FCTC) • Prevent and control tobacco use through implementation of WHO FCTC.
SDG 11: Make cities inclusive, safe, resilient and sustainable.	Tobacco manufacturing, use and disposal generates waste, making cities unclean.	Include smoke-free cities (Article 8 of WHO FCTC) and tobacco-free cities as part of healthy cities projects.
SDG 14: Conserve and sustainably use the oceans, seas and marine resources. SDG 15 – Sustainably manage forests, combat desertification, halt and reverse land degradation.	<ul style="list-style-type: none"> • Tobacco cycle including farming, curing, manufacturing, consumption and disposal is a threat to environment and natural resources. • Tobacco growing leads to water and soil pollution and deforestation. 	Implementation of Articles 17 and 18 of WHO FCTC.
SDG 16: Promote just, peaceful and inclusive societies.	Tobacco companies exploit international trade agreements.	<ul style="list-style-type: none"> • Implement Article 5.3 of WHO FCTC • Nations should prioritize health over trade. Implement provisions under WHO FCTC.
SDG 17: Revitalize the global partnership for sustainable development	Global partnership is important to combat the threat of tobacco use and to achieve sustainable development.	Implementation of full treaty is a key element of the 2030 Agenda for Sustainable Development.

Conclusion

Tobacco impedes sustainable development right through the entire cycle of growing, curing, production, manufacturing and trade to its consumption.

Full implementation of WHO FCTC will facilitate achievement of sustainable development goals, specially in low resource setting. SEA Region Member States are encouraged to implement the full treaty to achieve SDGs/targets.

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The global burden of tobacco use is well known and so are the adverse health, economic, social and environment consequences of tobacco use. Tobacco has also been recognized as a threat to development, which is being emphasized through the theme of World No Tobacco Day 2017 – “Tobacco – a threat to development”.

The WHO South-East Asia Region has a high burden of tobacco. This document has been developed to provide guidance to Member States of the South-East Asia Region regarding the relationship of tobacco use and the Sustainable Development Goals (SDGs). Although the WHO Framework Convention on Tobacco Control has been recognized as a means of implementation of SDG 3 (the health goal), the relationship of tobacco use with sustainable development extends far beyond this goal. The document speaks of opportunities offered by tobacco control to support efforts to achieve the implementation of the SDGs.



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ISBN 978 92 9022 578 2

