

PHILIP MORRIS INTERNATIONAL

# A Guide to the Tobacco and Nicotine Database

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# **Table of Contents**

FOREWORD
BACKGROUND INFORMATION
What is the database compiling?
What is the scope of the database?
Which kind of variables can I find in this database?
Local currency v. data in USD
Which data sources have been used?
How was this data collected?
Reference year and future updates
How you can help?
CLASSIFICATION AND DEFINITIONS
What are the various value chain phases?
How do I read variable codes?
How are the variables defined?
How are the variables labelled?
DATA FILE OUTPUT
How is the database output set up? 18
Which kind of filters are available?
Exporting the file into other software
ABBREVIATIONS AND TERMINOLOGY
List of abbreviations in alphabetical order 19
GEOGRAPHICAL CODES
What are the various regional and sub-regional codes?
What are the various country codes?

### Foreword

Philip Morris International (PMI) has built its success with its portfolio of cigarettes, with six of the world's top 15 international brands, and selling products in more than 180 markets.

Earlier this year PMI announced its ambition to lead a full-scale effort to ensure that non-combustible nicotine products replace cigarettes. But PMI doesn't work in isolation. The company interacts with an entire value chain from growers, suppliers, distributors to consumers. And PMI recognizes that transforming its business will have implications for many.

This is why PMI built the Tobacco and Nicotine Database. It allows users to access available country data on the tobacco and nicotine products markets across the value chain. It should help to develop a common understanding of the socio-economic dimensions of this sector around the world and form a basis for analyzing alternative long term policy scenarios.

Because here at PMI, we know that we cannot make this vision for the future a reality without the help of others, the company has decided to share this tool on its website. As a result, any stakeholder will be able to access these data and see how it shapes various sectors and economies around the world.

As with this new vision for the company, nothing will be done overnight. While the team here at PMI is confident that the database is a key initiative to think and assess how to best achieve a smokefree world, PMI recognizes that a collaborative approach is key to success. PMI is confident of the value of this tool and encourages you to contact us should you have any information or data points that you believe should be included, supplemented or modified (database@pmi.com).

# **Background Information**

#### What is the database compiling?

This global database is developed to include both combustible and non-combustible tobacco and other nicotine-containing products. This includes factory-manufactured cigarettes, cigars & cigarillos, fine-cut (also referred to as roll-your-own), smokeless, e-cigarettes and heated tobacco products. Data on those products span the entire supply chain – from tobacco growing, first processing, manufacturing, retail, and wholesale to government revenues, consumers and illicit trade.

#### What is the scope of the database?

This data set is not specific to PMI; rather it provides an overview of the entire industry and value chain. The database includes every country in the world (using the UN definitions) and covers off on over 130 variables per country.

#### Which kind of variables can I find in this database?

The database aggregates relevant data from hundreds of studies and publications into a single database. This file includes variables such as number of farms, number of manufactured cigarettes, number of employees in retail, number of current tobacco product users, government revenues from tobacco excise, to value added along the entire supply chain.

Some of the definitions for the variables that you will find in the database are based on assessment standards applied by third party sources. Not all variables are used in our business or influence our decision-making.

#### Local currency v. data in USD

All data points are collected and reported in local currency, when available. To be able to group and compare data across countries we translate all currencies into USD. The currency exchange rate used are also published.

#### Which data sources have been used?

This database is as much as possible based on publically available sources. In some cases, we presented data that were based on subscription-based resources and information from experts within our company was used, when data were industry-wide. In all cases, the database shows which data source was used. Example of data sources are: the Food and Agriculture Organization (FAO), the World Health Organization (WHO), UN, Eurobarometer, Euromonitor, KPMG, Nielsen, and national statistical offices.

#### How was this data collected?

The company has gathered these data working with a cross-functional project team of subject matter experts within PMI, and working closely with Nomisma, an economic research company based in Bologna, Italy (<u>http://www.nomisma.it/index.php/en/</u>). Nomisma reached out to relevant associations and third parties around the world to identify relevant publicly available data sources.

#### Reference year and future updates

These data have been collected during 2016 but the reference year for each source might vary. Please refer to the year column. We will store multi-year data to enable both cross-section and time-series analysis. We intend to update this database on a regular basis (at least annually) and all updates will be available on Philip Morris International's corporate website at www.pmi.com.

#### How you can help?

While this database is the largest one to date on the tobacco and nicotine market, we understand that in compiling the information presented in the dataset, we used certain assumptions. These assumptions, with respect to each applicable variable, are described in detail in the database. In light of these assumptions and other factors, some of the information presented may not be entirely accurate or complete. Our vision is to continuously improve the database with your help. As we are constantly looking to improve our expertise of the value chain and share our knowledge to foster common understanding and analysis of the sector, please reach out to us at database@pmi.com in case that you have any suggestions or other information.

# **Classifications and Definitions**

#### What are the various value chain phases?

The database is divided into 7 different topics, to represent the various value chain phases.

Topic Number	Topic Name
1	Tobacco growing
2	Tobacco first processing
3	Tobacco and nicotine product manufacturing
4	Suppliers of the manufacturing industry
5	Distributive trade
6	Taxes and illicit trade
7	Consumers

#### How do I read variable codes?

Each variable is assigned 2 numbers separated by an underscore. The first number represents the supply chain phase (see table above) and the second number is simply a counter assigned to the variable. As a result, variable 7\_120 would indicate that the data is about consumers and that this is the 120th variable in the database.

#### How are the variables defined?

The following table lists the full list of variables and their respective definitions.

Variable code	Supply chain phase	Variable Name	Definition
1_1	Tobacco growing	Year start tobacco growing	Year in which the country started growing tobacco.
1_2	Tobacco growing	Number of farms	Number of business units with tobacco as the main culture.
1_3	Tobacco growing	Number of growers - full time equivalent	Labor force derived from the ratio of the number of hours worked in a year by the total labor force and the standard working time of a full-time unit employed full-year.
1_4	Tobacco growing	Number of growers - total involved	Labor force ( > 15 years) involved in growing of crops and supporting agricultural and postharvest activities during the year (or seasonally).
1_5	Tobacco growing	Surface area where tobacco is grown	Surface area where tobacco is grown.
1_6	Tobacco growing	Average tobacco surface area per farm	Tobacco surface area divided by the number of tobacco farms.
1_7	Tobacco growing	% area dedicated to monoculture	% of total tobacco surface area cultivated as monoculture (the production of only one crop in a field year after year) or % of tobacco surface on total surface of the holding.

Variable code	Supply chain phase	Variable Name	Definition
1_8	Tobacco growing	Average agricultural land per farm	Total agricultural land divided by the number of farms.
1_9	Tobacco growing	% of the tobacco production of green leaves (FVC - Flue Cured Virginia)	% share of green leaves of tobacco grown in the country (FVC).
1_10	Tobacco growing	% of the tobacco production of green leaves (LAC - Light Air Cured) Burley (Maryland)	% share of green leaves of tobacco grown in the country (LAC).
1_11	Tobacco growing	% of the tobacco production of green leaves (Oriental)	% share of green leaves of tobacco grown in the country (Oriental).
1_12	Tobacco growing	% of the tobacco production of green leaves (other varieties - e.g. Dark Tobaccos, Kentucky)	% share of green leaves of tobacco grown in the country (excl. FVC, LAC and Oriental).
1_13	Tobacco growing	Total output volume - raw tobacco	Total tobacco harvested.
1_14	Tobacco growing	Average volume raw tobacco output per farm	Total output volume divided by the number of farms.
1_15	Tobacco growing	Average value raw tobacco output value per farm	Total output value divided by the number of farms (in local currency).
1_16	Tobacco growing	% tobacco farms that grow other crops	% of farms with tobacco as main crop but that grow at least one other crop.
1_17	Tobacco growing	Total output value	The value of the national raw tobacco harvested expressed at current market prices (farm-gate) (in local currency).
2_18	Tobacco first processing	Number of factories processing raw tobacco	Factories processing raw tobacco (sorting, re-humidifying, threshing, re-drying, stabilizing, fumigating and packaging of tobacco leaves) before the delivery to the manufacturing plants. Reconstituted tobacco is also included.
2_19	Tobacco first processing	Average number waged workers per company	Number of waged workers divided by the number of companies.
2_20	Tobacco first processing	Workforce number- full time equivalent	Labor force derived from the ratio of the number of hours worked in a year by the total labor force and the standard working time of a full-time unit employed full-year.
2_21	Tobacco first processing	Workforce - total involved	Labor force (15 years old and over) involved in sorting, re-humidifying, threshing, re-drying, stabilizing, fumigating and packaging of tobacco leaves, before the delivery to the manufacturing plants.
2_22	Tobacco first processing	Value added (first processing industry)	Unless available from official statistics, this value is estimated as the difference between the final production and the value of the raw tobacco purchased by the factories of the tobacco first processing industry (in local currency).
2_23	Tobacco first processing	Total revenue	Total turnover generated by the enterprise core activity of the first processing of tobacco (in local currency).
2_24	Tobacco first processing	Volume imports of unmanufactured tobacco	Unmanufactured tobacco is defined as: tobacco, un-stemmed or unstripped; partly or wholly stemmed or stripped tobacco, otherwise unmanufactured.

Variable code	Supply chain phase	Variable Name	Definition
2_25	Tobacco first processing	Value imports of unmanufactured tobacco	Unmanufactured tobacco is defined as: tobacco, un-stemmed or unstripped; partly or wholly stemmed or stripped tobacco, otherwise unmanufactured.
2_26	Tobacco first processing	Volume exports of unmanufactured tobacco	Unmanufactured tobacco is defined as: tobacco, un-stemmed or unstripped; partly or wholly stemmed or stripped tobacco, otherwise unmanufactured.
2_27	Tobacco first processing	Value exports of unmanufactured tobacco	Unmanufactured tobacco is defined as: tobacco, un-stemmed or unstripped; partly or wholly stemmed or stripped tobacco, otherwise unmanufactured.
3_28	Tobacco manufacturing	Number of cigarettes manufactured	Number of cigarettes produced by manufacturing enterprises. This category of tobacco products includes duty-paid, machine manufactured white-stick products and excludes the volume of non-machine manufactured products such as bidis/beedis (India), kreteks (Indonesia), papirosy (Russia), and other smoking products made with tobacco but that either do not resemble cigarettes as recognized in the US or Europe, or those that are not machine manufactured.
3_29	Tobacco manufacturing	Number of cigars & cigarillos manufactured	Units of cigars and cigarillos (defined as miniature cigars weighing less than 3 grams each), produced by manufacturing enterprises.
3_30	Tobacco manufacturing	Volume of other smoking tobacco products manufactured	Pipe tobacco and RYO tobacco produced by manufacturing enterprises.
3_31	Tobacco manufacturing	Volume of smokeless products manufactured	Chewing tobacco and snuff produced by manufacturing enterprises.
3_32	Tobacco manufacturing	Number of e-cigarette manufactured	Number of e-cigarette (liquid and cartridge) manufactured.
3_33	Tobacco manufacturing	Number of heat-not-burn products manufactured	Number of heat-not-burn products (heating tobacco rather than burning it) manufactured.
3_34	Tobacco manufacturing	Value total tobacco production	Amount of cigarettes, cigars & cigarillos, smoking tobacco and smokeless tobacco produced by manufacturers, based on the sales to distribution operators (in local currency).
3_35	Tobacco manufacturing	Value cigarette production	Amount of cigarettes produced by manufacturers, based on the sales to distribution operators (in local currency).
3_36	Tobacco manufacturing	Value cigars & cigarillos production	Amount of cigars and cigarillos produced by manufacturers, based on the sales to distribution operators (in local currency).
3_37	Tobacco manufacturing	Value other smoking tobacco production	Amount of smoking tobacco products produced by manufacturers, based on the sales to distribution operators (in local currency).
3_38	Tobacco manufacturing	Value smokeless products production	Amount of smokeless tobacco products produced by manufacturers, based on the sales to distribution operators (in local currency).
3_39	Tobacco manufacturing	Value e-cigarette production	Value of e-cigarette (liquid and cartridge) produced.

Variable code	Supply chain phase	Variable Name	Definition
3_40	Tobacco manufacturing	Value heat-not-burn production	Value of heat-not-burn (heating tobacco rather than burning it) production.
3_41	Tobacco manufacturing	Number tobacco manufacturing establishments	Number of establishments manufacturing tobacco products.
3_42	Tobacco manufacturing	Number smokeless products manufacturing establishments	Number of establishments producing smokeless products.
3_43	Tobacco manufacturing	Number e-cigarette manufacturing establishments	Number of establishments producing e-cigarettes (liquid and cartridge).
3_44	Tobacco manufacturing	Number heat-not-burn products manufacturing establishments	Number of establishments producing heat-not- burn (heating tobacco rather than burning it) products.
3_45	Tobacco manufacturing	Manufacture of tobacco - Employment number - full time equivalent units	Labor force derived from the ratio of the number of hours worked in a year by the total labor force and the standard working time of a full-time unit employed full-year.
3_46	Tobacco manufacturing	Manufacture of tobacco - Workforce number - total involved	Labor force (15 years old and over) involved in the manufacturing process of tobacco.
3_47	Tobacco manufacturing	Manufacturing smokeless products - Employment number - full time equivalent	Labor force derived from the ratio of the number of hours worked in a year by the total labor force and the standard working time of a full-time unit employed full-year.
3_48	Tobacco manufacturing	Manufacturing smokeless products - Workforce number - total involved	Labor force (15 years old and over) involved in the manufacturing process of tobacco.
3_49	Tobacco manufacturing	Manufacturing e-cigarettes - Employment number - full time equivalent units	Labor force derived from the ratio of the number of hours worked in a year by the total labor force and the standard working time of a full-time unit employed full-year.
3_50	Tobacco manufacturing	Manufacturing e-cigarettes - Workforce number - total involved	Labor force (15 years old and over) involved in the manufacturing process of tobacco.
3_51	Tobacco manufacturing	Manufacturing heat- not-burn - Employment number - full time equivalent units	Labor force derived from the ratio of the number of hours worked in a year by the total labor force and the standard working time of a full-time unit employed full-year.
3_52	Tobacco manufacturing	Manufacturing heat-not- burn - Workforce number - total involved	Labor force (15 years old and over) involved in the manufacturing process of tobacco.
3_53	Tobacco manufacturing	Value added (manufacturing industry for combustible products)	Unless available from official statistics, this value is calculated from the manufacturing value of the tobacco products, less the purchases of goods (mainly raw material) and services (if these data are available) (in local currency).
3_54	Tobacco manufacturing	Value added (manufacturing industry for non-combustible products)	Unless available from official statistics, this value is calculated from the manufacturing value of the non-combustible products, less the purchases of goods (mainly raw material) and services (if these data are available) (in local currency).
3_55	Tobacco manufacturing	Volume exports - cigarettes	Volume of cigarettes that are exported.

Variable code	Supply chain phase	Variable Name	Definition
3_56	Tobacco manufacturing	Volume exports -cigars & cigarillos	Volume of cigars & cigarillos that are exported.
3_57	Tobacco manufacturing	Volume exports - other smoking tobacco products	Volume of other smoking products that are exported.
3_58	Tobacco manufacturing	Volume exports - smokeless products (volume)	Volume of smokeless products that are exported.
3_59	Tobacco manufacturing	Volume exports - e-cigarettes	Volume of e-cigarettes (liquid and cartridge) that are exported.
3_60	Tobacco manufacturing	Volume exports - heat not burn	Volume of heat-not-burn products (heating tobacco rather than burning it) that are exported.
3_61	Tobacco manufacturing	Value exports - cigarettes	Value for the cigarettes that are exported (in local currency).
3_62	Tobacco manufacturing	Value exports - cigars & cigarillos	Value for the cigars & cigarillos that are exported (in local currency).
3_63	Tobacco manufacturing	Value exports - other smoking tobacco products	Value for the other smoking tobacco products that are exported (in local currency).
3_64	Tobacco manufacturing	Value exports - smokeless products	Value for the smokeless products that are exported (in local currency).
3_65	Tobacco manufacturing	Value exports - e-cigarettes	Value for e-cigarettes (liquid and cartridge) that are exported.
3_66	Tobacco manufacturing	Value exports - heat not burn	Value for heat-not-burn products (heating tobacco rather than burning it) that are exported.
3_67	Tobacco manufacturing	Volume imports – cigarettes	Volume of cigarettes that are imported.
3_68	Tobacco manufacturing	Volume imports -cigars & cigarillos	Volume of cigars & cigarillos that are imported.
3_69	Tobacco manufacturing	Volume imports - other smoking tobacco products	Volume of other smoking tobacco products that are imported.
3_70	Tobacco manufacturing	Volume imports - smokeless products	Volume of smokeless products that are imported.
3_71	Tobacco manufacturing	Volume imports - e-cigarettes	Volume of e-cigarettes (liquid and cartridge) that are imported.
3_72	Tobacco manufacturing	Volume imports - heat not burn	Volume of heat-not-burn products (heating tobacco rather than burning it) that are imported.
3_73	Tobacco manufacturing	Value imports - cigarettes	Value for the imports of cigarettes (in local currency).
3_74	Tobacco manufacturing	Value imports - cigars & cigarillos	Value for the imports of cigars & cigarillos (in local currency).

Variable code	Supply chain phase	Variable Name	Definition
3_75	Tobacco manufacturing	Value imports - other smoking tobacco products	Value for other smoking tobacco products (in local currency).
3_76	Tobacco manufacturing	Value imports - smokeless products	Value for the imports of smokeless products (in local currency).
3_77	Tobacco manufacturing	Value imports - e-cigarettes	Value for the e-cigarettes (liquid and cartridge) that are imported.
3_78	Tobacco manufacturing	Value imports - heat-not- burn	Value for the heat-not-burn products (heating tobacco rather than burning it) that are imported.
4_79	Suppliers of the tobacco manufacturing industry	Number of companies	Number of companies that supply the value chain with paper, filters, machines and packaging. It also comprises those companies that provide transportation of tobacco and tobacco products (at each stage of the value chain).
4_80	Suppliers of the tobacco manufacturing industry	Estimated sales revenues	Turnover (in local currency).
4_81	Suppliers of the tobacco manufacturing industry	Number of employees - full time equivalent	Labor force derived from the ratio of the number of hours worked in a year by the total labor force and the standard working time of a full-time unit employed full-year.
4_82	Suppliers of the tobacco manufacturing industry	Number of employees - total involved	People who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind.
4_83	Suppliers of the tobacco manufacturing industry	Value added by suppliers of the tobacco industry	Value added by suppliers of the tobacco industry (in local currency).
5_84	Tobacco distributive trade	Wholesale traders	Trade operators who purchase and store the goods (among which the tobacco products) in large quantities. Then, they resell them to professional users or groups (i.e. retailers), but not to final consumers.
5_85	Tobacco distributive trade	Number of employees in wholesale trade	People who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind.
5_86	Tobacco distributive trade	Value added derived from tobacco distribution	Unless available from official statistics, this value is calculated from the retail value of the tobacco products, less the main taxes, and less the value of the manufactured tobacco products (in local currency).
5_87	Tobacco distributive trade	Number of independent points of sale (excluding vending machines) for combustible products	Number of independent points of sale (excluding vending machines).
5_88	Tobacco distributive trade	Number retail outlets smokeless	Number of retail outlets that sell smokeless products.
5_89	Tobacco distributive trade	Number retail outlets e-cigarettes	Number of retail outlets that sell e-cigarettes (liquid and cartridge).

Variable	Supply chain		
code	phase	Variable Name	Definition
5_90	Tobacco distributive trade	Number retail outlets for heat-not-burn	Number of retail outlets for heat-not-burn (heating tobacco rather than burning it) products.
5_91	Tobacco distributive trade	Number cigarette vending machines	Appliances that take cash in payment for packets of cigarettes.
5_92	Tobacco distributive trade	Cigarette vending machine market share	Retail volume share of vending machines.
5_93	Tobacco distributive trade	Number of employees in combustible products retail - full time equivalent	Labor force derived from the ratio of the number of hours worked in a year by the total labor force and the standard working time of a full-time unit employed full-year.
5_94	Tobacco distributive trade	Number of employees in combustible products retail - total involved	People who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind.
5_95	Tobacco distributive trade	Volume sales of cigarettes	Units of cigarettes sold by retailers to final consumers.
5_96	Tobacco distributive trade	Volume sales of cigars & cigarillos	Units of cigars and cigarillos sold by retailers to final consumers.
5_97	Tobacco distributive trade	Volume sales of smoking tobacco products	Amount of smoking tobacco products (pipe tobacco and RYO tobacco) sold by retailers to final consumers.
5_98	Tobacco distributive trade	Volume sales fine cut tobacco	Amount of fine-cut tobacco sold by retailers to final consumers.
5_99	Tobacco distributive trade	Volume sales pipe tobacco	Amount of pipe tobacco sold by retailers to final consumers.
5_100	Tobacco distributive trade	Volume sales of smokeless products	Amount of smokeless tobacco (chewing tobacco and snuff) sold by retailers to final consumers.
5_101	Tobacco distributive trade	Volume sales of e-cigarettes	Amount of e-cigarettes (liquid and cartridge) sold to final consumers.
5_102	Tobacco distributive trade	Volume sales of heat-not- burn products	Amount of heat-not-burn products (heating tobacco rather than burning it) sold to final consumers.
5_103	Tobacco distributive trade	Value cigarette sales	Total sales of cigarettes at retail selling price (RSP), at current prices (in local currency).
5_104	Tobacco distributive trade	Value cigars & cigarillos sales	Total sales of cigars and cigarillos at retail selling price (RSP), at current prices (in local currency).
5_105	Tobacco distributive trade	Value other smoking tobacco products sales	Total sales of smoking tobacco products (pipe tobacco, RYO tobacco) at retail selling price (RSP), at current prices (in local currency).
5_106	Tobacco distributive trade	Value fine cut sales	Total sales of fine cut tobacco at retail selling price (RSP), at current prices (in local currency).
5_107	Tobacco distributive trade	Value pipe tobacco sales	Total sales of pipe tobacco at retail selling price (RSP), at current prices (in local currency).

Variable code	Supply chain phase	Variable Name	Definition
5_108	Tobacco distributive trade	Value sales smokeless products	Total sales of smokeless products at retail selling price (RSP), at current prices (in local currency).
5_109	Tobacco distributive trade	Value sales e-cigarettes	Value sales of e-cigarettes (liquid and cartridge) at retail selling price (RSP), at current prices (in local currency).
5_110	Tobacco distributive trade	Value sales heat-not-burn products	Value sales of heat-not-burn products (heating tobacco rather than burning it) at retail selling price (RSP), at current prices (in local currency).
6_111	Taxes and illicit trade	Government revenues from the excise taxes on tobacco products	Amount of money received by the national governments through the excise duty, a tax levied on specific kinds of goods, typically alcoholic beverages, tobacco and fuels. The excise on tobacco depends on both the value of the goods and on the volume (ad valorem + specific components).
6_112	Taxes and illicit trade	Government revenues from VAT (Value Added Tax)	Amount of money received by the national governments through the Value added tax on tobacco.
6_113	Taxes and illicit trade	Total tax per cigarette	Total tax per cigarette (in local currency).
6_114	Taxes and illicit trade	Government expenditures on tobacco control	The amount that was allocated and spent by national governments for tobacco control in one budget year, not what was contained in the budget. In addition to salaries, expenditures on the development of legislation, enforcement of legislation, behavior change promotion such as quit lines and cessation advice, and pharmacological treatment also constitute part of the tobacco control budget.
6_115	Taxes and illicit trade	Value import duty on unmanufactured tobacco	Customs duties levied on unmanufactured tobacco when it enters the economic territory of a nation.
6_116	Taxes and illicit trade	Value import duties on tobacco products	Customs duties levied on tobacco products when they enter the economic territory of a nation.
6_117	Taxes and illicit trade	Illicit trade share	Ratio between the total volume of cigarettes trade (both legal and illegal) and the volume of illicit cigarettes trade.
6_118	Taxes and illicit trade	Illicit trade volume	Illicit trade volume refers to the number of non-duty paid cigarettes (includes smuggled & counterfeit/fake products combined). Legitimate cross-border sales are considered duty-paid. Sales arising from a foreign national purchasing cheaper cigarettes in bulk in a neighboring country for personal use and exported back are attributed to the country where the purchase is made (e.g. bulk cigarette sales by British nationals in France are attributed to France).
6_119	Taxes, regulations and illicit trade	Tax lost due to illicit trade	Total tax revenues lost to governments due to illicit trade of cigarettes.
7_120	Consumers	Number current tobacco product smokers	World Health Organization definition and estimates: the number of persons, aged 15 years and above, who smoke cigarettes, cigars, pipe or any other smoked tobacco product, both daily and non-daily or occasionally.

Variable code	Supply chain phase	Variable Name	Definition
7_121	Consumers	Number current cigarette smokers	World Health Organization definition and estimates: the number of persons, aged 15 years and above, who smoke cigarettes, both daily and non-daily or occasionally.
7_122	Consumers	Number current smokeless users	The number of people, who use smokeless products, both daily and non-daily or occasionally.
7_123	Consumers	Number current e-cigarette users	The number of people who use e-cigarettes, both daily and non-daily or occasionally.
7_124	Consumers	Number current heat-not- burn users	The number of people, who use heat-not-burn products (heating tobacco rather than burning it), both daily and non-daily or occasionally.
7_125	Consumers	Number daily tobacco product smokers	World Health Organization definition and estimates: the number of persons, aged 15 years and above, who smoke cigarettes, cigars, pipe or any other smoked tobacco product at least once a day.
7_126	Consumers	Number daily cigarette smokers	World Health Organization definition and estimates: the number of persons, aged 15 years and above, who smoke cigarettes at least once a day.
7_127	Consumers	Average daily cigarette consumption	Average daily cigarette consumption.
7_128	Consumers	Average retail price cigarette	Average retail price cigarette (in local currency).
7_129	Consumers	Average retail price for e-cigarettes	Average retail price for e-cigarettes (liquid and cartridge) (in local currency).
7_130	Consumers	Average retail price for heat-not-burn products	Average retail price for heat-not-burn products (heating tobacco rather than burning it) (in local currency).
7_131	Consumers	Average retail price smokeless products	Average retail price smokeless products (in local currency).
7_132	Consumers	Cheapest price for cigarettes (in legal realm)	Retail price (inclusive of all taxes and in local currency where available) of a pack of 20 cigarettes purchased at a convenience store or supermarket in the capital city (WHO definition).

#### How are the variables labelled?

Each variable is labelled with the following format:

- The variable code
- The variable name
- The measurement unit (if applicable)

As a result, 1\_2 Number of farms, number indicated that you are looking at the tobacco farming phase, that it is the 2nd variable listed in the database, that you are looking at the number of farms and that the output in the data column is a number (count).

Variable labeling in the database
1_1 Year start tobacco growing
1_2 Number of farms
1_3 Number of growers - full time equivalent
1_4 Number of growers - total involved
1_5 Surface area where tobacco is grown
1_6 Average tobacco surface area per farm
1_7 % area dedicated to monoculture
1_8 Average agricultural land per farm
1_9 % of the tobacco production of green leaves (FVC - Flue Cured Virginia)
1_10 % of the tobacco production of green leaves (LAC - Light Air Cured ) Burley (Maryland)
1_11 % of the tobacco production of green leaves (Oriental)
1_12 % of the tobacco production of green leaves (other varieties - e.g. Dark Tobaccos, Kentucky)
1_13 Total output volume - raw tobacco
1_14 Average volume raw tobacco output per farm
1_15 Average value raw tobacco output value per farm
1_16 % tobacco farms that grow other crops
1_17 Total output value
2_18 Number of factories processing raw tobacco
2_19 Average number waged workers per company
2_20 Workforce number- full time equivalent
2_21 Workforce - total involved
2_22 Value added (first processing industry)
2_23 Total revenue
2_24 Volume imports of unmanufactured tobacco
2_25 Value imports of unmanufactured tobacco
2_26 Volume exports of unmanufactured tobacco
2_27 Value exports of unmanufactured tobacco
3_28 Number of cigarettes manufactured
3_29 Number of cigars & cigarillos manufactured
3_30 Volume of other smoking tobacco products manufactured
3_31 Volume of smokeless products manufactured
3_32 Number of e-cigarette manufactured
3_33 Number of heat-not-burn products manufactured
3_34 Value total tobacco production
3_35 Value cigarette production
3_36 Value cigars & cigarillos production
3_37 Value other smoking tobacco production

3\_38 Value smokeless products production

3_39 Value e-cigarette production	
3_40 Value heat-not-burn production	
3_41 Number tobacco manufacturing establishments	
3_42 Number smokeless products manufacturing establishments	
3_43 Number e-cigarette manufacturing establishments	
3_44 Number heat-not-burn products manufacturing establishments	
3_45 Manufacture of tobacco - Employment number - full time equivalent units	
3_46 Manufacture of tobacco - Workforce number - total involved	
3_47 Manufacturing smokeless products - Employment number - full time equivalent	
3_48 Manufacturing smokeless products - Workforce number - total involved	
3_49 Manufacturing e-cigarettes - Employment number - full time equivalent units	
3_50 Manufacturing e-cigarettes - Workforce number - total involved	
3_51 Manufacturing heat-not-burn - Employment number - full time equivalent units	
3_52 Manufacturing heat-not-burn - Workforce number - total involved	
3_53 Value added (manufacturing industry for combustible products)	
3_54 Value added (manufacturing industry for non-combustible products)	
3_55 Volume exports - cigarettes	
3_56 Volume exports -cigars & cigarillos	
3_57 Volume exports - other smoking tobacco products	
3_58 Volume exports - smokeless products (volume)	
3_59 Volume exports - e-cigarettes	
3_60 Volume exports - heat not burn	
3_61 Value exports - cigarettes	
3_62 Value exports - cigars & cigarillos	
3_63 Value exports - other smoking tobacco products	
3_64 Value exports - smokeless products	
3_65 Value exports - e-cigarettes	
3_66 Value exports - heat not burn	
3_67 Volume imports – cigarettes	
3_68 Volume imports -cigars & cigarillos	
3_69 Volume imports - other smoking tobacco products	
3_70 Volume imports - smokeless products	
3_71 Volume imports - e-cigarettes	
3_72 Volume imports - heat not burn	
3_73 Value imports - cigarettes	
3_74 Value imports - cigars & cigarillos	
3_75 Value imports - other smoking tobacco products	
3_76 Value imports - smokeless products	
3_77 Value imports - e-cigarettes	
3_78 Value imports - heat-not-burn	
4_79 Number of companies	
4_80 Estimated sales revenues	
4_81 Number of employees - full time equivalent	
4_82 Number of employees - total involved	
4_83 Value added by suppliers of the tobacco industry	
5_84 Wholesale traders	
5 85 Number of employees in wholesale trade	

- 5\_86 Value added derived from tobacco distribution
- 5\_87 Number of independent points of sale (excluding vending machines) for combustible products
- 5\_88 Number retail outlets smokeless
- 5\_89 Number retail outlets e-cigarettes
- 5\_90 Number retail outlets for heat-not-burn
- 5\_91 Number cigarette vending machines
- 5\_92 Cigarette vending machine market share
- 5\_93 Number of employees in combustible products retail full time equivalent
- 5\_94 Number of employees in combustible products retail total involved
- 5\_95 Volume sales of cigarettes
- 5\_96 Volume sales of cigars & cigarillos
- 5\_97 Volume sales of smoking tobacco products
- 5\_98 Volume sales fine cut tobacco
- 5\_99 Volume sales pipe tobacco
- 5\_100 Volume sales of smokeless products
- 5\_101 Volume sales of e-cigarettes
- 5\_102 Volume sales of heat-not-burn products
- 5\_103 Value cigarette sales
- 5\_104 Value cigars & cigarillos sales
- 5\_105 Value other smoking tobacco products sales
- 5\_106 Value fine cut sales
- 5\_107 Value pipe tobacco sales
- 5\_108 Value sales smokeless products
- 5\_109 Value sales e-cigarettes
- 5\_110 Value sales heat-not-burn products
- 6\_111 Government revenues from the excise taxes on tobacco products
- 6\_112 Government revenues from VAT (Value Added Tax)
- 6\_113 Total tax per cigarette
- 6\_114 Government expenditures on tobacco control
- 6\_115 Value import duty on unmanufactured tobacco
- 6\_116 Value import duties on tobacco products
- 6\_117 Illicit trade share
- 6\_118 Illicit trade volume
- 6\_119 Tax lost due to illicit trade
- 7\_120 Number current tobacco product smokers
- 7\_121 Number current cigarette smokers
- 7\_122 Number current smokeless users
- 7\_123 Number current e-cigarette users
- 7\_124 Number current heat-not-burn users
- 7\_125 Number daily tobacco product smokers
- 7\_126 Number daily cigarette smokers
- 7\_127 Average daily cigarette consumption
- 7\_128 Average retail price cigarette
- 7\_129 Average retail price for e-cigarettes
- 7\_130 Average retail price for heat-not-burn products
- 7\_131 Average retail price smokeless products
- 7\_132 Cheapest price for cigarettes (in legal realm)

# Data File Output

#### How is the database output set up?

The database output can be viewed in an excel spreadsheet. The file contains the following columns:

- Continent code
- Region code
- Country code
- Country name
- Data collection year
- Supply chain phase
- Variable name
- Data
- Data in USD
- Year
- Source
- Link
- Exchange rate USD
- Notes

#### Which kind of filters are available?

You can sort each column based on the information that you would like. You can go as broad as looking at all the variables for every country and as minimal as looking at the data for one variable in one country. To use those filters, please click on the small icons at the right side corner of the column, as shown below.

D	E	F	G	н
Country_name	Data_collection_gear 🚽	Topie 🖵	¥ariable_numl 🖵	Variable_name
Burundi	2016	1	1	Year start tobacco growing
Comoros	2016	1	1	Year start tobacco growing
Djibouti	2016	1	1	Year start tobacco growing
Eritrea	2016	1	1	Year start tobacco growing
Ethiopia	2016	1	1	Year start tobacco growing
Kenya	2016	1	1	Year start tobacco growing
Madagascar	2016	1	1	Year start tobacco growing
Malawi	2016	1	1	Year start tobacco growing
Mauritius	2016	1	1	Year start tobacco growing
Mozambique	2016	1	1	Year start tobacco growing
Rvanda	2016	1	1	Year start tobacco growing

#### Exporting the file into other software

You can use this file directly with multiple software, including SPSS and Tableau.

# Abbreviations and Terminology

Term	Description	Website
ADAMS	Adams (Thailand)	http://www.aegonmarketing.com/ADAMS-ASIA/ ADAMS-Thailand/
AEC	ASEAN Economic Community	http://asean.org/asean-economic-community/
AGEA	Agenzia per le Erogazioni in Agricoltura (Italy)	http://www.agea.gov.it/portal/page/portal/ AGEAPageGroup/HomeAGEA/home
BAT	British American Tobacco	http://www.bat.com/
CNSEE	Centre National de la Statistique et des Etudes Economiques (Congo)	http://www.cnsee.org/
CNTC	China National Tobacco Corporation	
DKFZ	German Cancer Research Center	https://www.dkfz.de/en/index.html
EC	European Commission	http://ec.europa.eu/index_en.htm
FAO	Food and Agriculture Organization of the United Nations	http://www.fao.org/home/en/
FETRATAB	Fédération européenne des transformateurs de tabac	Includes the Associazione Professionale di Trasformatori di Tabacchi Italiani (A.P.T.I.), the Federation of Industries of Transformation of Greek Tobacco, the Asociacion Nacional Española de Empresas de Transformacion de Tabaco and the Union des Coopératives Agricoles de Producteurs de Tabac (UCAPT) and SEITA (Altadis Group).
GATS	The General Agreement on Trade in Services (WTO)	https://www.wto.org/english/tratop_e/serv_e/ gatsqa_e.htm
На	Hectare	
Hnb	Heat-not-burn	https://www.pmiscience.com/platform-development/ platform-portfolio/heat-not-burn
IT	Imperial Tobacco	http://www.imperialbrandsplc.com/About-us/Our- companies/Imperial-Tobacco
JTI	Japan Tobacco International	http://www.jti.com/
KTGO	The Korea Tobacco Growers Cooperative Association	
LAS	Legal-aged smokers	
LC	Local currency	
MoF	Ministry of Finance	
MoH	Ministry of Health	
МҮО	Make-your-own tobacco; a type of fine-cut tobacco sold to consumers to make their own cigarettes	
NOMISMA	An economic research company based in Bologna, Italy	http://www.nomisma.it/index.php/en/
NTA	National Tobacco Administration	http://nta.da.gov.ph/
ONEI	Oficina Nacional de Estadística e información (Cuba)	http://www.one.cu/
PM [country]	Philip Morris affiliate	
PMI	Philip Morris International	http://www.pmi.com/eng/pages/homepage.aspx
POS	Point of sale	

PWC	PriceWaterhouseCoopers	https://www.pwc.com/
RSP	Retail Selling Pricing	
RYO	Roll-your-own tobacco, a type of fine-cut tobacco for consumers to roll their own cigarettes	
TAPDK	Tobacco and Alcohol Market Regulatory Authority (Turkey)	https://www.tapdk.gov.tr/tr.aspx
TIMB	Tobacco Industry and Marketing Board	
TISA	The Tobacco Institute of Southern Africa	http://www.tobaccosa.co.za/
TNS	Global research agency	http://www.tnsglobal.com/
TORITA	Tobacco Research Institute of Tanzania	http://www.torita.or.tz/
TTC	Tanzania Tobacco Council	
TTM	Thailand Tobacco Monopoly	
UBINIG	Policy Research for Development Alternative	http://ubinig.org/
UN	United Nations	http://www.un.org/en/index.html
USDA NASS	United States Department of Agriculture – National Agricultural Statistics Service	https://www.nass.usda.gov/
VAT	Value-added tax	
WHO	World Health Organization	http://www.who.int/en/
WTO	World Trade Organization	https://www.wto.org/index.htm

# **Geographical Codes**

#### What are the various regional and sub-regional codes?

The data available can be broken down by region, sub-regions, continents or any other aggregation needed. The codes are the UN codes.

Please refer to the following codes for sub-regional breakdowns:

Region / Sub-region	Codes
AFRICA	2
Eastern Africa	14
Middle Africa	17
Northern Africa	15
Southern Africa	18
Western Africa	11
A C1 A	440
ASIA	142 143
Central Asia	143 30
Eastern Asia Southern Asia	30
Southern Asia South-Eastern Asia	34 35
Western Asia	145
Western Asia	145
OCEANIA	9
Australia and New Zealand	53
Melanesia	54
Micronesia	57
Polynesia	61
AMERICAS	19
Latin America	419
Caribbean	29
Central America	13
South America	5
Northern America	21
EUROPE	150
Eastern Europe	151
Northern Europe	154
Southern Europe	39
Western Europe	155

#### What are the various country codes?

You can find below the country codes, by alphabetical order. This list is based on UN codes.

Country	Code
Afghanistan	4
Åland Islands	248
Albania	8
Algeria	12
American Samoa	16
Andorra	20
Angola	24
Anguilla	660
Antigua and Barbuda	28
Argentina	32
Armenia	51
Aruba	533
Australia	36
Austria	40
Azerbaijan	31
Bahamas	44
Bahrain	48
Bangladesh	50
Barbados	52
Belarus	112
Belgium	56
Belize	84
Benin	204
Bermuda	60
Bhutan	64
Bolivia (Plurinational State of)	68
Bonaire, Sint Eustatius and Saba	535
Bosnia and Herzegovina	70
Botswana	72
Brazil	76
British Virgin Islands	92
Brunei Darussalam	96
Bulgaria	100
Burkina Faso	854
Burundi	108
Cabo Verde	132
Cambodia	116
Cameroon	120
Canada	124

Country	Code
Caribbean	29
Cayman Islands	136
Central African Republic	140
Central America	13
Chad	148
Channel Islands	830
Chile	152
China	156
China, Hong Kong Special Administrative Region	344
China, Macao Special Administrative Region	446
Colombia	170
Comoros	174
Congo	178
Cook Islands	184
Costa Rica	188
Cote d'Ivoire	384
Croatia	191
Cuba	192
Curaçao	531
Cyprus	196
Czech Republic	203
wDemocratic People's Republic of Korea	408
Democratic Republic of the Congo	180
Denmark	208
Djibouti	262
Dominica	212
Dominican Republic	214
Ecuador	218
Egypt	818
El Salvador	222
Equatorial Guinea	226
Eritrea	232
Estonia	233
Ethiopia	231
Europe	150
Faeroe Islands	234
Falkland Islands (Malvinas)	238
randana isianas (marvinas)	

Country	Code
Finland	246
France	250
French Guiana	254
French Polynesia	258
Gabon	266
Gambia	270
Georgia	268
Germany	276
Ghana	288
Gibraltar	292
Greece	300
Greenland	304
Grenada	308
Guadeloupe	312
Guam	316
Guatemala	320
Guernsey	831
Guinea	324
Guinea Bissau	624
Guyana	328
Haiti	332
Holy See	336
Honduras	340
Hungary	348
Iceland	352
India	356
Indonesia	360
Iran (Islamic Republic of)	364
Iraq	368
Ireland	372
Isle of Man	833
Israel	376
Italy	380
Jamaica	388
Japan	392
Jersey	832
Jordan	400
Kazakhstan	398
Kenya	404
Kiribati	296
Kuwait	414
Kyrgyzstan	417
Lao People's Democratic Republic	418
Latvia	428

Country	Code
Lebanon	422
Lesotho	426
Liberia	430
Libya	434
Liechtenstein	438
Lithuania	440
Luxembourg	442
Madagascar	450
Malawi	454
Malaysia	458
Maldives	462
Mali	466
Malta	470
Marshall Islands	584
Martinique	474
Mauritania	478
Mauritius	480
Mayotte	175
Mexico	484
Micronesia (Federated States of)	583
Monaco	492
Mongolia	496
Montenegro	499
Montserrat	500
Morocco	504
Mozambique	508
Myanmar	104
Namibia	516
Nauru	520
Nepal	524
Netherlands	528
New Caledonia	540
New Zealand	554
Nicaragua	558
Niger	562
Nigeria	566
Niue	570
Norfolk Island	574
Northern America	21
Northern Mariana Islands	580
Norway	578
Oceania excluding Australia and New Zealand	9
Oman	512
Pakistan	586

Country	Code
Palau	585
Panama	591
Papua New Guinea	598
Paraguay	600
Peru	604
Philippines	608
Pitcairn	612
Poland	616
Portugal	620
Puerto Rico	630
Qatar	634
Republic of Korea	410
Republic of Moldova	498
Réunion	638
Romania	642
Russian Federation	643
Rwanda	646
Saint Helena	654
Saint Kitts and Nevis	659
Saint Lucia	662
Saint Martin (French part)	663
Saint Pierre and Miquelon	666
Saint Vincent and the Grenadines	670
Saint-Barthélemy	652
Samoa	882
San Marino	674
Sao Tome and Principe	678
Sark	680
Saudi Arabia	682
Senegal	686
Serbia	688
Seychelles	690
Sierra Leone	694
Singapore	702
Sint Maarten (Dutch part)	534
Slovakia	703
Slovenia	705
Solomon Islands	90
Somalia	706
South Africa	710
South Sudan	728

Country	Code
Spain	724
Sri Lanka	144
State of Palestine	275
Sudan	729
Suriname	740
Svalbard and Jan Mayen Islands	744
Swaziland	748
Sweden	752
Switzerland	756
Syrian Arab Republic	760
Tajikistan	762
Thailand	764
The former Yugoslav Republic of Macedonia	807
Timor-Leste	626
Togo	768
Tokelau	772
Tonga	776
Trinidad and Tobago	780
Tunisia	788
Turkey	792
Turkmenistan	795
Turks and Caicos Islands	796
Tuvalu	798
Uganda	800
Ukraine	804
United Arab Emirates	784
United Kingdom of Great Britain and Northern Ireland	826
United Republic of Tanzania	834
United States of America	840
United States Virgin Islands	850
Uruguay	858
Uzbekistan	860
Vanuatu	548
Venezuela (Bolivarian Republic of)	862
Viet Nam	704
Wallis and Futuna Islands	876
Western Sahara	732
Yemen	887
Zambia	894
Zimbabwe	716