

# Tobacco and our world

## Tobacco and our world overview

- Tobacco is grown in over 125 countries, on over four million hectares of land.
- Just four countries, China, Brazil, India and the USA, account for two-thirds of total global production.
- The use of child labour in tobacco production is widespread.
- Each year over 5 trillion cigarettes are produced.
- Tobacco depletes the soil nutrients faster than most other crops
- 122 tonnes of tobacco related litter is dropped in the UK every day

Tobacco doesn't just damage smokers, it also damages the environment. From growing tobacco, to disposal of the butts the whole life cycle of cigarettes takes a toll on our planet.

- The tobacco industry burns as much as one acre of forest for every acre of tobacco cured, using 12% of all the timber felled in the world.
- On average, a tree is cut down for every 300 cigarettes (about a two-week supply for a pack-a-day smoker).
- In Brazil, the country's 100,000 tobacco farmers need the wood of 60 million trees a year.
- Tobacco cultivation involves a great deal of pesticides, which must be used in the early stages of tobacco growth. Fertilizers, herbicides and pesticides poison farm workers, seep into the soil and pollute waterways and ecological systems, and poison livestock and food crops.
- Cigarette butts are washed into rivers, lakes and the ocean from city streets, through storm drains. Seabirds, animals and fish eat them by mistake. Their bodies have no way to digest the filters and they can die.
- Cigarette butts take an average of 25 years to decompose.

## Growing, Manufacturing and Selling Tobacco

Seeds for the tobacco plants are sown each year. Each plant grows about 20 large leaves. The tobacco leaves are harvested by hand or machine ready for curing or preserving. Curing or preserving improves the taste and the burning quality of the tobacco. Most tobacco is flue-cured which entails passing heated air through the harvested leaves in barns heated by pipes, oil or coal burners. Buyers from the tobacco companies purchase the tobacco. It is then taken to factories where they remove more of the moisture from the tobacco and it is packed up and left to ferment for up to three years. The tobacco is tumbled together with lots of additives until it is well mixed together. It is then shredded very finely into 'rag'. **Cigarettes are made by huge machines, which use four miles of paper every hour.**

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Tobacco is grown on just under 1% of the world's agricultural land, and on a wide variety of soils and climates. Since the 1960s, the bulk of production has moved from the Americas to Africa and Asia; land devoted to tobacco growing has been halved in the USA, Canada and Mexico, but has almost doubled in China, Malawi and United Republic of Tanzania.

**The production of tobacco leaves has more than doubled since the 1960s, totalling nearly 7 million metric tons in 2000.**

**The use of child labour in tobacco production is widespread.** In Brazil, for example, some 520,000 children under the age of 18 work on tobacco farms, 32% of whom are younger than 14.

**Each year, over five trillion cigarettes are manufactured.** China is by far the largest cigarette manufacturer, followed by Brazil.

Philip Morris is the world's largest trans-national tobacco company, whose Marlboro brand is the world leader. In 1999, the company had sales of over US \$47 billion. 70% of the world's tobacco is grown in developing countries, yet tobacco farmers only receive a small percentage of the profits that tobacco production generates. In a number of these countries, tobacco companies provide farmers with loans, equipment and technical assistance. **Many of these farmers find themselves heavily in debt to the companies** – in Brazil, it was predicted that 35% of the tobacco growers would finish the harvest owing more money to the companies than they earned.

**Globally tens of billions of US dollars are spent every year on marketing cigarettes.** Cigarette marketing is bolder and more aggressive in developing countries than it is in the developed world. Cigarette advertising on TV and radio is common in developing countries but this kind of marketing is becoming increasingly prohibited in developed countries.

## Tobacco and the Environment

**Tobacco is a non-essential, non-food crop and depletes the soil nutrients faster than most other crops.**

**Tobacco is a sensitive plant prone to many diseases. Consequently, huge amounts of fertiliser, herbicide and pesticides are used in the growing of tobacco; up to 16 applications may be made during a three-month growing period.** These chemicals are known to leach into the soil and find their way into streams, rivers and food chains.

In addition to the hazards posed by using pesticides, tobacco growers are also susceptible to green tobacco sickness (GTS). This is caused by the absorption of nicotine through the skin from contact with wet tobacco leaves. Symptoms include nausea, weakness, dizziness and abdominal cramps, and fluctuations in blood pressure and heart rates.

**The processes used in curing tobacco leaves cause massive deforestation.** In many developing countries, trees are cut down to provide fuel for the curing process and for the construction of the curing barns. Each year nearly 600 million trees are destroyed to provide fuel to dry tobacco. This is equates to, **one tree being destroyed for every 300 cigarettes.**

Deforestation occurs mainly in developing countries amounting to 1.5% of global loss of forest cover. In one area of Malawi, nearly 80% of the wood cut down is used for tobacco, even though tobacco farmers make up only 3% of the farmers in the area. In semi-arid areas where tobacco thrives, the loss of trees can make land more vulnerable to desertification and unfit for agriculture.

The growing of tobacco means that less land is available for food crops. **While some food is grown between crops of tobacco, it has been estimated that 10 to 20 million people could be fed by food crops instead of tobacco.**

**Burning tobacco is the main source of indoor pollution in the developed world.** Tobacco smoke

contains more than 4,000 chemicals, 60 of which are known or suspected to cause cancer. Tobacco is responsible for five million deaths throughout the world each year. If current smoking patterns continue, it is estimated that, by 2025, tobacco will cause 10 million deaths each year. 70% of these deaths will occur in developing countries.

A worldwide beach, river and streams clean-up in 2003 found **cigarette litter to be the major source of debris**, accounting for almost 30% of all items found. In a survey conducted by Keep Britain Tidy in 2002, cigarette-related litter was found in 77% of all locations throughout Britain. As part of its 'Reclaim the Streets' campaign, the Daily Mirror found that cigarette ends, packets and matches were the most commonly found items of rubbish, with 122 tonnes of this rubbish being dropped every day across the UK.

**Cigarettes and matches are a common cause of fires.** Smokers' materials and matches were the most frequent source of ignition causing accidental dwelling fire deaths in 2002. In the UK, 200 people are killed and 2000 injured every year in house fires caused by smoking.

## Useful Websites

The information in these factsheets is sourced from a range of reputable organisations. Contact details are given below, should teachers require more detailed information on any topic area, or wish to download additional teaching resources.

[www.canstopsmoking.com](http://www.canstopsmoking.com)

Developed by Health Scotland, this website provides information on the reasons behind why people smoke and what support is available if they are looking to quit. Local smoking cessation services can be found on this website.

[www.ashscotland.org.uk](http://www.ashscotland.org.uk)

ASH Scotland is the leading voluntary organisation campaigning for effective tobacco control legislation. For 30 years, ASH Scotland has played a key role in raising awareness about tobacco use and its harmful effects and has contributed to the implementation of effective public health policies to help smokers to quit and to protect children from tobacco.

[www.healthscotland.com](http://www.healthscotland.com)

The national health improvement agency for Scotland.

[www.ash.org.uk](http://www.ash.org.uk)

ASH is a campaigning public health charity working for a comprehensive societal response to tobacco aimed at achieving a sharp reduction and eventual elimination of the health problems caused by tobacco. Includes visual and presentation resources available to download in PDF for teachers.

[www.tobaccoinscotland.com](http://www.tobaccoinscotland.com)

Working with key partners, ASH Scotland developed Tobacco Information Scotland to provide the best possible gateway to smoking and tobacco-related information in Scotland.

[www.bbc.co.uk/health](http://www.bbc.co.uk/health)

Good interactive site for children, including the 'Body Tour' ([www.bbc.co.uk/health/kids/btourshtml](http://www.bbc.co.uk/health/kids/btourshtml)). Useful information source for teachers/older adolescents on a range of addictions ([www.bbc.co.uk/health/addictions](http://www.bbc.co.uk/health/addictions)).

[www.gasp.org.uk](http://www.gasp.org.uk)

Web catalogue containing 350 stop smoking and tobacco control resources, including leaflets, books, activity packs, training materials, displays, models and posters.

[www.mindbodysoul.gov.uk](http://www.mindbodysoul.gov.uk)

Targeted at 14- to 16-year-olds, but there are several relevant sections for younger children, e.g. 'Scary facts about smoking', 'Vanity facts' and 'What's in a cigarette'?

[www.quitbecause.org.uk](http://www.quitbecause.org.uk)

A guide for young people on how to give up smoking.

[www.clearingtheairscotland.com](http://www.clearingtheairscotland.com)

A Scottish Government website which provides the background and detailed guidance for the smoking ban in enclosed public places.

[www.tobaccoagechangescotland.co.uk](http://www.tobaccoagechangescotland.co.uk)

Information on the change in age legislation.

[www.roycastle.org/kats](http://www.roycastle.org/kats)

Lively and interactive site supporting Kids Against Tobacco initiative, which was developed by the Roy Castle Lung Cancer Foundation.

[www.tobaccopapers.com](http://www.tobaccopapers.com)

In 1999, the House of Commons Select Committee acquired access to internal documents of the main advertising agencies of the UK tobacco industry as part of their investigation into the conduct of the tobacco industry. Contains an interesting case study on the Tobacco Market and Young People.

[www.who.org](http://www.who.org)

The World Health Organization is the United Nations specialised agency for health. Includes *The Tobacco Atlas*.

[www.globalink.org](http://www.globalink.org)

A US site with a tobacco encyclopaedia.

## References

Health Scotland - Tobacco Facts

[www.ashscotland.org.uk](http://www.ashscotland.org.uk)

[www.ash.org.uk](http://www.ash.org.uk)

[www.clearingtheairscotland.com/faqs/pdf/info-leaflet.pdf](http://www.clearingtheairscotland.com/faqs/pdf/info-leaflet.pdf)

[www.treehugger.com/files/2007/02/smoking\\_environment.php](http://www.treehugger.com/files/2007/02/smoking_environment.php)

[www.scotland.gov.uk/Resource/Doc/155323/0041722.pdf](http://www.scotland.gov.uk/Resource/Doc/155323/0041722.pdf) - *Towards a Future without Tobacco*

[www.drugmisuse.isdscotland.org/publications/local/SALSUS\\_2006.pdf](http://www.drugmisuse.isdscotland.org/publications/local/SALSUS_2006.pdf) - Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS)

[www.rdoc.org.uk/smoking\\_tobacco\\_risk.html](http://www.rdoc.org.uk/smoking_tobacco_risk.html) - Mouth Cancer Foundation

[www.mhra.gov.uk](http://www.mhra.gov.uk) - Report of the Committee on Safety of Medicines Working Group on Nicotine Replacement Therapy

**YSTEP Lesson/Learning Activity Plans Leading to Curriculum for Excellence outcomes:**

Activity/Time	Format	Curriculum for Excellence
Visual presentation - a global overview of the hidden impacts of tobacco entitled "smoke the convenient truth"	Powerpoint presentation - Smoke the convenient truth.	
Poetry - creative writing	Poem from an Edinburgh resident who was a popular poet.	
Ash Scotland - Tobacco and the Developing World	Factual Work Book	
Ash Scotland - Tobacco and the Environment	Factual Work Book	
Interpreting Visual Images	Colour photographs of child labour, and cigarette litter	
Tobacco Facts	Health Scotland Factual Work Book for Teachers	
Up in Smoke by Bryan Farrell	Report of the impact of tobacco companies on Malawi	
Social disruption caused by tobacco growing Marty Otañez*	Study conducted for the Study Group on Economically Sustainable Alternatives to Tobacco Growing	

## Suggested second, third and fourth level experiences and outcomes

### Social Studies

#### People, place and environment

##### SOC 4-10a

I can develop my understanding of the interaction between humans and the environment by describing and assessing the impact of human activity on an area.

##### SOC 3-08a

I can identify the possible consequences of an environmental issue and make informed suggestions about ways to manage the impact.

##### SOC 4-08a

I can discuss the sustainability of key natural resources and analyse the possible implications for human activity.

### Social Studies

#### People in society, economy and business

##### SOC 2-15a

I can use evidence selectively to research current social, political or economic issues.

##### SOC 3-15a

I can use my knowledge of current social, political or economic issues to interpret evidence and present an informed view.

##### SOC 4-15a

I can evaluate conflicting sources of evidence to sustain a line of argument.

##### SOC 4 16-b

Through discussion I have identified aspects of a social issue to investigate and by gathering information I can assess its impact and the attitudes of the people affected.

##### SOC 3-17b

I can discuss the extent to which my choices and decisions are influenced by the ways in which I am informed.

##### SOC 4-17a

I can critically analyse the relative importance of the contribution of individuals or groups in bringing about change in a significant political event.