

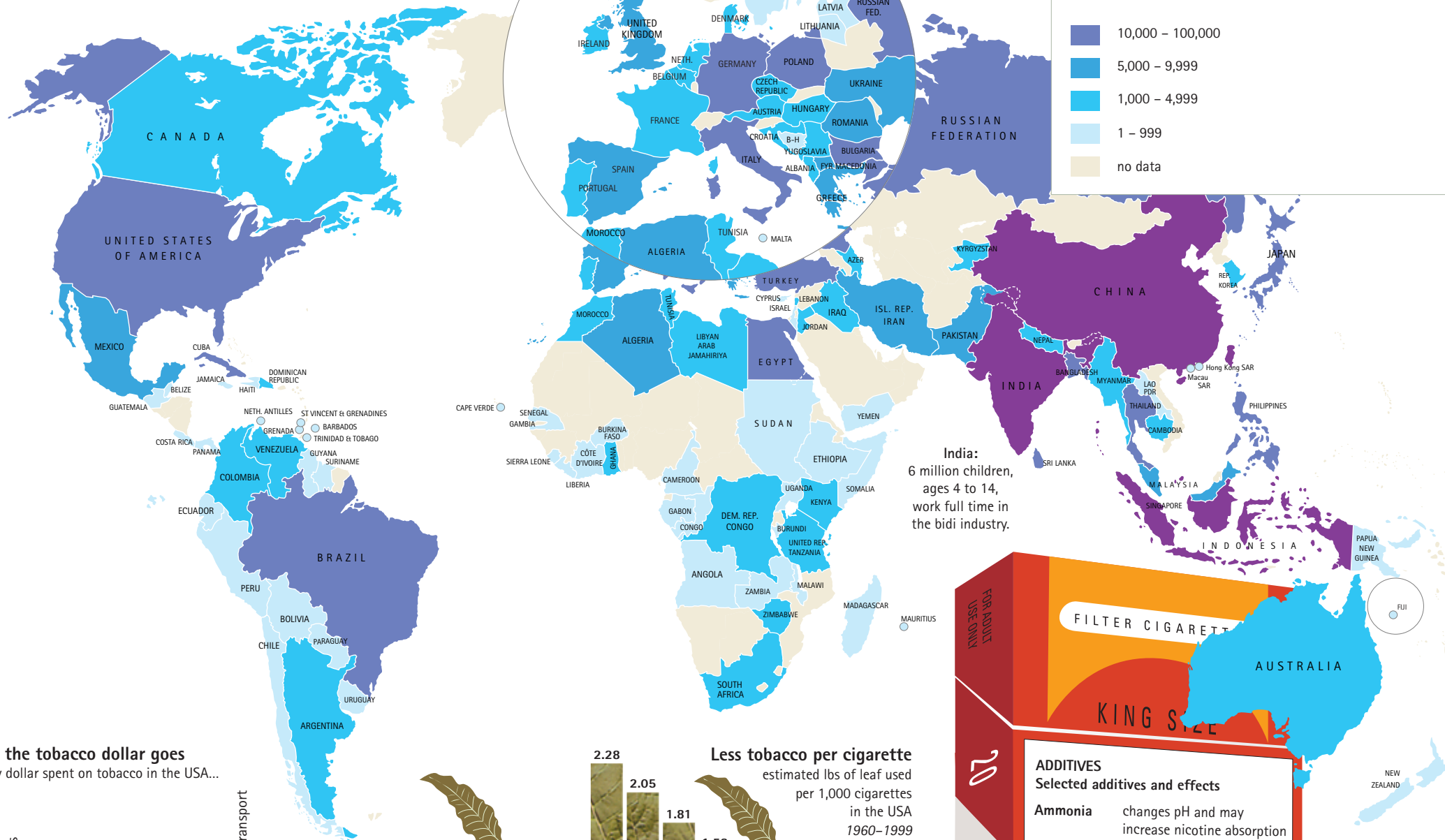
Manufacturing Tobacco

Each year, over five trillion cigarettes are manufactured. China is by far the largest cigarette manufacturer, followed by the USA. Chinese cigarette production increased from 225 billion cigarettes annually in 1960 to 1.7 trillion a year in 1995, a seven-fold increase. The economic value of tobacco products is vast, totalling hundreds of billions of US dollars a year. Very little of this money is spent on tobacco itself. More is spent on paper, filters, and packaging than on tobacco.

Nearly 2 million people are employed in the manufacture of tobacco products, two-thirds of whom are working in China, India and Indonesia. Job losses which would result from a reduction in tobacco consumption are estimated to be fairly small. Technological advances in both farming and manufacturing have a much larger impact on jobs than tobacco control efforts.

Hundreds of chemicals are added to tobacco in the manufacture of cigarettes. Additives make smoke easier to inhale into the lungs and allow for less tobacco to be used in each cigarette. Today's cigarettes are highly engineered, exquisitely designed "nicotine delivery devices".

Besides using less tobacco per cigarette, the composition of the cigarette is also changing. Manufacturers are using more reconstituted tobacco, which makes it easier to add chemicals and to include leaf stems and dust which had previously been discarded.

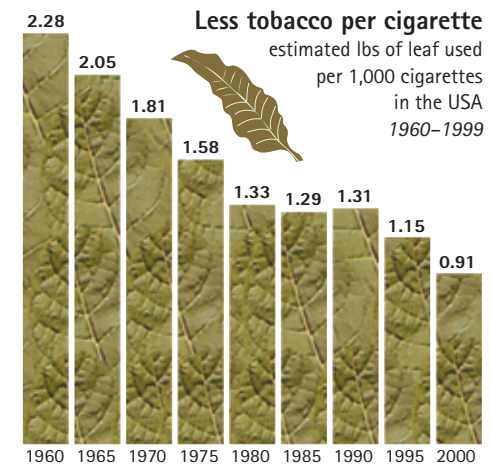


India:
6 million children, ages 4 to 14, work full time in the bidi industry.

Where the tobacco dollar goes
For every dollar spent on tobacco in the USA...



Because of the use of additives and other technologies, such as "fluffing" and the use of reconstituted tobacco, tobacco companies use less and less tobacco per cigarette.



ADDITIVES
Selected additives and effects

- Ammonia** changes pH and may increase nicotine absorption
- Flavourings** enhance taste
- Sweeteners** make more palatable
- Eugenol and Menthol** numb throat and facilitate inhalation
- Cocoa** dilate airways
- Others** mask smell and invisibility of sidestream smoke

other additives: ammonia, ammonium hydroxide, beta-carotene, gentian root extract, levulinic acid, patchouli oil, urea, methylcyclopentenolone, snakeroot oil