

Chopsticks: Global Supply and Environmental Consequences.

Chopstick Production:

- Raw Materials used
- Processing of raw material
- Shipping of final product

Solutions to the environment problems

- Tax (China)
- Biofuels (Japan)
- Alternative material
- Global market change (raw material(edible chopsticks' influence consumers and producers)

Where is fibre for chopsticks harvested from?

Fibre for chopsticks production may come from many different sources. A common fibre source for chopsticks coming from the US and Canada are made of Aspen, willow, and birch. Chinese disposable chopsticks are made from bamboo, and the fibre sourced from countries such as Malaysia and Indonesia. China's environment minister believes that up to 1.3 million cubic meters of forest are harvested for chopstick production. In China, the raw material is bamboo.

Processing and Shipping of chopsticks.

In China, roughly 80 billion disposable chopsticks are produced, 30 billion for export, 50 billion for domestic consumption for both domestic use as well as export to Japan, South Korea, and the US. Chopsticks originating in North America are shipped to China, where several different companies may be involved in re-packaging the products to be shipped to Japan (and elsewhere). As North American demand for Asian foods increases, so will the consumption of disposable chopsticks. The entire supply chain is carbon intensive, as fibre for chopsticks come from many sources, and are shipped to production facilities. These products are then shipped around the world, increasing the amount of carbon utilized. Fibre sources from as far as North America are shipped to China for processing, only to be shipped back as a final product.

What is the major problem?

Disposable chopsticks are a global, environmental issue as the majority of disposable chopsticks are thrown away after use. The massive volume of fibre require to produce chopsticks puts pressure on developing nations to cut down their forests. The global production of disposable chopsticks is unsustainable, as millions of trees are utilized annually, only to be thrown away after use. The carbon that was stored in the tree is released when chopsticks degrade in a landfill. Not only does harvesting forests for chopsticks damage forest environments, it also may lead to human consequences such as mudslides due to deforestation. China has acknowledged the problem, and proposed a shift to reusable chopsticks as an alternative.

Solutions:

The Chinese government began charging a 5 percent tax in 2006 on disposable chopsticks export in efforts to curb deforestation. The goal is to use high prices to drive people towards reusable utensils such as washable plastic or metal chopsticks. The alternative of reusable plastic chopsticks are beneficial as they are more durable, reliable and are reused instead of discarded. Reusable plastic differ from disposable plastics in a sense where production require significantly greater greenhouse gas emissions but its ability to last and be used over and over again make it a positive environmental alternative.

Other innovative alternatives to disposable chopsticks:

- Cornstarch Chopsticks
- Edible Chopsticks from baked flour, water, and salt.
- Using disposable chopsticks as biofuel source. This approach was not effective as the effort to collect massive volumes of disposable chopsticks proved to be ineffective. This approach could however work in a small scale setting.

The possible future of chopsticks in a global setting:

To promote sustainability in globalization, decisions and implementations must target strategies throughout the supply chain (production and raw materials) to consumption practices. The creation of a more sustainable system in the global market requires commitment production from production companies, policy makers to businesses and consumers.

Changing attitudes about Chopsticks in Metro Vancouver - Sushi Capital of North America

A study conducted by SFU found that the majority of sushi restaurants continue to use disposable chopsticks. The study tried to dissuade restaurant owners of using disposable chopsticks in favour of reusable. The study was able to convince several restaurants to switch to reusable chopsticks. In 2011, the UBC Social Ecological Economic Development Studies(SEEDS) conducted a survey amongst 50 UBC students ranging from 18-22 about the use of reusable chopsticks. 63% of participants prefer reusable chopsticks as opposed to disposable either because of food tasting better or the thought it was more sustainable. Reasons for using disposable chopsticks include being more hygienic and conveniently available.

The ethical question of disposable chopsticks cannot be left to industry. If a demand for disposable chopsticks is present, industries will continue to produce them. A more effective alternative is for the consumer to demand that restaurants provide reusable chopsticks with meals. Though disposable chopsticks are a global environmental issue, it is essentially up to the consumer in their respective nations to make the decision whether to use disposable or reusable chopsticks. In China for example, massive public support has been given to halting disposable chopstick production.

Works cited

- "China's Disposable Chopstick Addiction Is Destroying Its Forests." *Washington Post*. The Washington Post, n.d. Web. 22 Feb. 2015.
- Hays, Jeffery. "DEFORESTATION IN ASIA: CHINA, ILLEGAL LOGGING, PALM OIL AND CHOPSTICKS." *DEFORESTATION IN ASIA: CHINA, ILLEGAL LOGGING, PALM OIL AND CHOPSTICKS*. N.p., 2008. Web. 22 Feb. 2015.
- Mooney, P. (2006). CHOPPING CHOPSTICKS. *Science World*, 63(1), 20.
- Segal, J. (2013, June 27). Chopsticks – Can We Reuse, Reduce, or Recycle? Retrieved February 22, 2015, from <http://www.foodpolitic.com/chopsticks-can-we-reuse-reduce-or-recycle/>
- Wang, Han, Reza Nejatali, Soroush Seif, and Yan Yee Chow. "An Investigation into Chopsticks (Disposable versus Reusable)." University of British Columbia, 24 Nov. 2011. Web. 20 Feb. 2015.
- "Where Do Chinese Chopsticks Come From?" *United Explanations Blogs*. N.p., 20 June 2011. Web. 22 Feb. 2015.
- LIFE-CYCLE STUDIES: Chopsticks. (2006). *World Watch*, 19(1), 2.