

ENVIRONMENTAL ISSUES IN THAILAND

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Environmental Issues in Thailand

- Thailand is a country with **abundant natural resources**, including a wide variety of **flora and fauna**, and **distinct ecological zones**.
- There are over **100 Thailand national parks**, including more **than 20 marine parks**.
- Ecological zones include the **temperate forests** of the northern mountains, the **plains** of central Thailand, the **savannahs** of the northeast and the **mangrove forests** of the southern coasts.
- Animals in Thailand include not only elephants and monkeys but also bears and whale sharks. [Source: Tourist Authority of Thailand]
- Bangkok is particularly **vulnerable to sea level rises** associated with **global warming**. The city hosted a major international meeting on global warming in April 2007.
- The city held a United Nations climate conference in October 2009. Thailand's carbon dioxide emissions from consumption of energy: 278.5 million Mt (2010 est.), **country comparison to the world: 23.**

Environmental Issues in Thailand (cont'd)

- Environmental problems faced by Thailand include:
 - 1) land subsidence in Bangkok area resulting from the depletion of the water table
 - 2) droughts and water shortages
 - 3) air pollution from vehicle emissions
 - 4) water pollution from organic and factory wastes
 - 5) deforestation
 - 6) soil erosion
 - 7) wildlife populations threatened by illegal hunting.
- Between 1975 and 1988, the release of **toxic chemicals increased 1,200 percent.**
- **DDT was still being used in the early 2000s** in part because it is **effective in controlling mosquitos** that carry **the malaria parasite.** [Source: CIA World Factbook]

Environmental Issues in Thailand (cont'd)

- **Bangkok suffers** from a number of **environmental problems**. It is sinking into **sewage-filled canals** that often **overflow and flood** the city in the rainy season.
- The city needs more **sewage treatment facilities** and more people **cleaning out the garbage from the canals**.
- In the early 2000s Bangkok's sanitation budget was only \$5.5 million.
- The city has started a campaign to get people to recycle more. It has received international aid to build two modern incinerators for waste disposal.
- Some **e-waste such old computers, old batteries** and **discarded electronics**—some of which dangerous toxins such as mercury and dioxin—**have been dumped in Thailand**.

Environmental Issues in Thailand (cont'd)

- The **sulphur oxide, nitrous oxide and acetic acid** emitted from **petrochemical plants, oil refineries** and **plastics and chemical factories** in the eastern seaside town of **Mab Ta Phut** is so bad that people wear gas masks to work and suffer from headaches, vomiting, sore throats and other health problems.
- The **large number of vehicles** and other forms of pollution have left Bangkok in a perpetual cloud of rust-colored smog. Black smoke billows out of the back of old buses and tuk tuks. Construction dusts fill the air. **Thick hazy smogs** are produced **when pollutants combine with fog**.

Air Pollution in Thailand

- In an article on the gridlock traffic in Bangkok, Time correspondent Hannah Beach wrote: “**The one thing that has gotten better is air quality.**”
- “Even a decade ago, working as a Bangkok traffic cop was considered hazardous because of the constant inhalation of exhaust fumes. Since then, the city has cleaned up. The amount of **harmful small particulates in the air has decreased nearly 50 percent**, in part because of a campaign to switch cars and buses from diesel to natural gas. That doesn't mean that the streets are pristine: only seven of the **60 so-called green roads in Bangkok were found to have safe air**, according to a **survey last year by the Bangkok Metropolitan Administration..**” [Source: Hannah Beach, Time, February 8, 2008]

Air Pollution in Thailand (cont'd)

- Many of **Bangkok's klongs (canals) are foul and dirty**. Some are filled with black oily water. Others are stagnant pools covered by smelly green scum and filled with garbage.
- Millions of liters of industrial waste is released into Thai waterways every year. By one estimate **over 1.26 million tons of toxic waste is dumped into Thailand's waterways each year**, most of it untreated. A large number of **arsenic-tainted water wells** have been discovered in Thailand.
- In some **coastal areas biodiversity** and **marine life numbers** have been **greatly diminished** by **overfishing and pollutants** released from shrimp farms and in agricultural run off.
- **Sewage** released by **hotels and developed tourism areas** was a particular problem in Pattaya until it was fairly recently cleaned up.
- Problems posed by tourism to the marine environment include illegally harvesting seashells dumping of rubbish into the sea and anchoring tour boats on coral reefs.
- **Discarded plastic bottles are a common sight** on Thailand's beaches. There is a lot of damage on coral reefs in Southeast Asia.

Water Pollution

- Greenpeace has issued a warning on the **consumption of seafood** from the Gulf of Thailand, saying rain water and sediment there contains high levels of seven “very toxic” chemicals.
- A study by the environmental group found that fish and seafood harvested 25 kilometers offshore south of Bangkok was **“heavily contaminated with toxic chemicals released by industrial estates and factories.”**
- For a while there were worries about outbreaks of water-borne diseases in Pattaya as a result of large amounts of raw sewage dumped into the sea water but that problem was largely fixed with a \$60 million clean water project and the fining of hotels and other businesses that dumped sewage.

Sinking Bangkok, Increased Flooding and Water Shortages in Thailand

- **Bangkok is sinking, in some places up to 10 centimeters a year.** This is caused by **groundwater being drained by wells**, the oceans ever so slightly rising and the earth underneath buildings being compacted by the sheer weight of all the development.
- During **the five month rainy season** when as much as a meter of rain falls on **Bangkok streets sometimes become rivers and shop keepers have to build dams to protect their merchandise.** If global warming does in fact cause the oceans to rise significantly, Bangkok will be one of the first places to go under.
- Bangkok was built at the center of **Thailand's central flood plains between its mountain ranges and the sea.**
- The area in and around **the city receives up to four fifths of the region's rain overspill during the monsoon season.** In the old days the canals provided storage for flood waters. But since many of these have been paved over the water has nowhere to go but into the streets and into houses when the Chao Phraya river floods.

Sinking Bangkok, Increased Flooding and Water Shortages in Thailand (cont'd)

- AFP reported: “Thailand's monsoon rains can sweep across Bangkok with a moment's notice, blacking out the sky and sparking floods that fill the street and then disappear just as quickly as they arrived.
- Some 4,000 millimetres (157.48 inches) pour down on Thailand in a year, most of it between June and December, but shoddy management of the nation's water supply is causing **shortages as agriculture, households and industry increase their demands**, experts warn.
[Source: AFP, June 12, 2005]

Sinking Bangkok, Increased Flooding and Water Shortages in Thailand (cont'd)

- “**Demand for water could nearly double within 20 years**, from **190 million cubic metres** (6.7 billion cubic feet) a year to **340 million cubic metres** (9.6 billion cubic feet), one study at respected Mahidol University indicates.
- Because **rain doesn't fall evenly throughout the year**, Thailand is also highly **prone to drought**. The just-ended dry season brought a drought that scorched 60 of the kingdom's 76 provinces.
- Bangkok residents currently **only pay for the cost of using raw water**. Nationally, Thais use an **average 200 litres** (42.8 gallons) of water per person a day, and **416 litres** (109.9 gallons) per person in the Bangkok metropolitan area, Mahidol University's Kampanad says.
- The figure for the city of more than **seven million people and its surrounding districts** includes water used domestically and by industry, Kampanad says.

Sources of information

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