



## 9. Hazardous Waste: A Hidden Danger

At present, society produces many kinds of dangerous waste. There is poisonous waste, discarded electronic equipment, and hospital waste. These kinds of garbage decompose very slowly. If they are not disposed of correctly they are a threat to the environment and the health of the local community.

The accumulation of garbage around cities is a problem for many countries. Garbage that is biodegradable does not cause great difficulties. However, aside from toxic waste from factories, there are also agricultural wastes such as chemicals and pesticides, household wastes such as light bulbs, batteries, engine oil, and car tires. There is also medical waste with blood or bodily fluids of patients that, if not disposed of properly, is 'infectious waste'. All these wastes are a threat to the environment and the health of the local community.

The same is true for components from computers, mobile telephones, and other electronic equipment that has expired and has become 'electronic waste'. This sort of waste is accumulating every day, as a result of industrialization and technological progress. However, the gap between the production and disposal of waste is widening. Attention needs to be paid to dangerous waste, electronic waste and hospital waste. Different groups need urgently to cooperate to address the problem of dangerous waste.

Data from the Department of Pollution Control indicate that in 2003 Thailand produced as many as 1.8 million tons of dangerous waste. Of this, 1.4 million tons was industrial waste, 0.4 million tons was household waste, and 22,500 tons was infectious waste. On average, Thais produce about 5,000 tons of waste per day. The habit of not separating waste means that dangerous waste contaminates ordinary garbage. The different types of waste form a garbage mountain, containing germs and chemicals. Poor management practices lead to contamination of water, soil, the environment, and the food chain.



### The used mobile phones and computers increasing, but the disposal system is not coping

In the past five years, use of mobile phones has been increasing. In the years 2003, Thais owned a total of 12 million mobile phones. Of these nine million were new. Ten years earlier Thailand had had only 0.34 million mobile phones. The huge increase resulted from improvements in technology and reductions in price.

Data from 2004 show that 27.2 million Thais used mobile phones. The number of users is expected to increase to 31 million in 2005. The Department of Customs has reported that 24.74 million mobile phones were imported into Thailand in the last three years. A similar increase has been reported for computers. A survey by the National Statistical Office in the year 2003 found that there were 1.531 million computers in Thailand. A survey in 2004 found that the number had increased to 1.948 million.

Thailand does not yet have data on the number of mobiles and computers that have been thrown away. But it is possible that electronic waste could become a serious problem for people and the environment in the near future. A particular concern is mobile phone batteries. One million of these are thrown away per month, but few are disposed of correctly. A study by the Kasikorn Bank Research Center in 2003 found that only 11.1 percent of mobile phone users returned batteries to the producers for disposal.

Similarly, about one million car batteries are thrown away per year. The chemicals in batteries are carcinogenic, and can affect the reproductive system. They enter the body through being eaten or inhaled, or can be absorbed through the skin. If Thailand does not develop a system for disposing of used batteries, then they could damage the health of everyone.





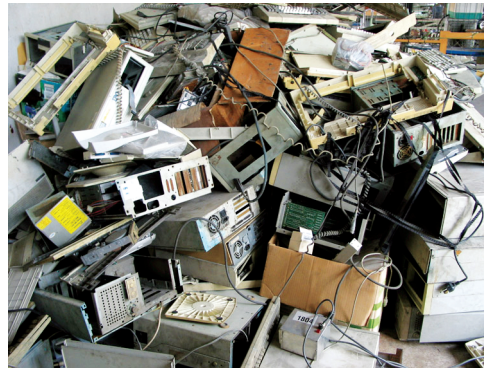
## Waste from developed countries coming to Thailand

In addition to worrying about waste from Thailand itself, Thai people also need to deal with waste from developed countries. Early in the year 2003, the Department of Customs reported that five containers of tires, automobile engines, used batteries, and used gloves from the United Kingdom were thrown away in Samut Prakan Port. Foreign ships disposed of 0.7 million tons of used oil at Laem Chabang Port in Chonburi Province. This is a warning sign that Thailand is becoming a dumping place for waste from developed countries.

In 2003 foreign companies illegally brought hazardous electronic waste and chemicals for disposal in Thailand fifteen times. This is despite the fact that Thailand signed the BASEL agreement regulating the international transfer of waste in 1992, and has strict laws against the practice. However, undocumented waste often appears in Thailand.

Incredibly, factories for disposing of foreign waste have been established in Thailand. Companies have also been established to buy electronic waste from foreign countries. These investors disappear when waste enters the country, as they have already received their payments. The Thai government therefore has to take responsibility for clearing up the mess created by countries that call themselves developed.

Some supposed benefactors donating or selling cheap goods have a hidden objective of disposing of electronic wastes well away from their own countries, so that other people have to suffer the ill effects. This is the real reason for the influx of cheap electric appliances and second hand electronic goods into Thailand. It is another factor leading to increases in the quantity of waste in Thailand.



## The plan for disposing of electronic waste

Recycling and re-using are important methods for slowing the increase in waste. Re-using is easier and more common. For instance, rural schools and local organizations already receive second-hand computers. There are also shops selling second-hand computers and mobile phones throughout the country.

Some electronic wastes can be recycled by using expensive technology from overseas. However, this solution cannot fully help reduce electronic wastes.

The last resort is to dispose of waste. This can be done through the cooperation of the Department of Environmental Quality Promotion, the Department of Pollution Control, and non-governmental organizations. The companies AIS, DTAC, Nokia, and Ma Boon Krong have launched a campaign to reduce the waste from mobile batteries. In the year 2004, they asked people to return used batteries and telephones, which the companies and government would dispose of in ways that would not harm the environment.

Very recently, the Department of Pollution Control drafted a master plan for dealing with the national problem of electronic waste in the future. It will submit the plan to the National Environment Committee for the Cabinet to consider. The plan calls on three groups-manufacturers, consumers, and importers-to cooperate. Local authorities will be responsible for managing waste in a systematic way, and recovering their costs from manufacturers and consumers. The Department hopes that the plan will come into effect in the near future.



## Who is affected?

The failure of the policy of separating hazardous wastes from other wastes is attributable to lack of knowledge and concern among the general population. In the past five years, the Bangkok Metropolitan Administration has collected 84 tons of hazardous waste per day, which is only 0.314 percent of all waste. This is well short of the target of 20 percent.

At the same time, the incineration of hospital waste is a notable environmental problem. For instance, in October 2004, people in Mae Taeng District complained that the local hospital had covertly incinerated waste for many years, to the point where trees were dying. Local people suffered from smoke and odors, and were worried about the effects on their health. In Phu Ruea, people have had to endure smoke and odors from the local hospital for 4-5 years, and report feelings of dizziness from the pollution. They have been negotiating with the hospital to improve the system for incinerating waste.

## The problem can be solved through cooperation between consumers and the government

In all cases where hazardous waste damages health and the environment, the damage is inflicted on local people. An effective management system must therefore start with the source of the waste. This means the consumers.

1. The most important point is to educate consumers on separating different kinds of waste. When hazardous waste is separated from other kinds, disposal is much easier.

2. People must take responsibility for the problems they create. For instance, people who change their mobile phones often should pay higher taxes for disposing of waste than other people, because they create more waste.

3. The government should support small state-owned enterprises to recycle waste. This includes centers for receiving used electrical goods and computers, to repair the goods and donate them to needy groups. It should also include the establishment of funds to support activities caring for the environment and looking after garbage in schools and communities.

4. At present private companies hired by hospitals incinerate infectious waste in the middle of the night. These companies must follow the law, or receive fines and be de-registered. Hazardous waste needs to be disposed of correctly. If not, everybody will suffer.

