CASE STUDY

INFORMAL E-WASTE RECYCLING IN GHANA

E-waste – electrical and electronic waste – is one of today's fastest-growing transnational waste streams. By managing it well, society can recover valuable raw materials and reusable parts, with significant associated carbon dioxide emissions savings (compared with using new natural resources). E-waste includes every bit of abandoned electronic and electrical material belonging to computers, CD players, smartphones and printers. Normally, the parts are dismantled and the waste burned to extract expensive metals, including gold, silver, chromium, zinc, lead, tin and copper. Large numbers of people in India and China, including children working in family-run workshops, take part in informal e-waste recovery. Some of the worst and most widely reported problems have arisen in Ghana, however.

Electronic waste imports into Ghana exceed 200,000 tonnes annually, of which 70 per cent are second-hand goods, including donations of old computers sent to schools by charities. However, around 15 per cent of second-hand imports will turn out to be broken beyond repair. Additionally, many non-functioning and non-reusable electronic devices are sent there deliberately from the EU (despite European laws that are supposed to prevent this).

There are no distinct policies in Ghana for the regulation and management of e-waste. As a result, a large informal industry has developed around the recovery of e-waste, but there are no clear regulations to prohibit unsafe work practices.

- The settlement of Agbogbloshie or Old Fadama consists of about 6,000 families or 30,000 people, situated on the left bank of the Odaw River in Accra. The establishment and growth of Agbogbloshie is driven by poverty and the migration of desperate people from the north of Ghana, some of whom are escaping tribal conflict. Over the years it has grown into a dumping ground for old electrical and electronic products. Hundreds of tonnes of e-waste end up there every month as a final resting place, where they are broken apart to salvage copper and other metallic components that can be sold.
- In Agbogbloshie, entire families work in appalling conditions. The method of extracting and recovering valuable materials from old computer circuit boards is highly hazardous (Figure 3.24). The burning process releases toxic substances into the atmosphere, soils and water, with dire health consequences. Known health problems include acute damage to the lungs from inhalation of fumes of heavy metals such as lead and cadmium.

Figure 3.24 Working with e-waste in Accra, Ghana

- Toxic wastes, heavy metals and battery acids released into the soil and the surface water have destroyed wildlife in the Odaw River, which used to be an important fishing ground for the neighbouring communities.