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Despite international outcry, world's electronic waste still ends up in China

GUIYU, China (AP): The air smells acrid from squat gas burners that sit outside homes, melting wires to recover copper and cooking computer motherboards to release gold.

Migrant workers in filthy clothing smash picture tubes by hand to recover glass and electronic parts, releasing as much as three kilograms (6.5 pounds) of lead dust.

For five years, environmentalists and the media have highlighted the danger to Chinese workers who dismantle much of the world's junked electronics. Yet a visit to this southeastern Chinese town regarded as the heartland of "e-waste" disposal shows little has improved. In fact, the problem is growing worse because of China's own contribution.

China now produces more than 1 million tons (910,000 metric tons) of e-waste each year, said Jamie Choi, a toxics campaigner with Greenpeace China in Beijing. That adds up to roughly 5 million television sets, 4 million refrigerators, 5 million washing machines, 10 million mobile phones and 5 million personal computers, according to Choi.

"Most e-waste in China comes from overseas, but the amount of domestic e-waste is on the rise," he said.

This ugly business is driven by pure economics. For the West, where safety rules drive up the cost of disposal, it is as much as 10 times cheaper to export the waste to developing countries. In China, poor migrants from the countryside willingly endure the health risks to earn a few yuan, exploited by profit-hungry entrepreneurs.

International agreements and European regulations have made a dent in the export of old electronics to China, but loopholes -- and sometimes bribes -- allow many to skirt the requirements. And only a sliver of the electronics sold get returned to manufacturers such as Dell and Hewlett Packard for safe recycling.

Upwards of 90 percent ends up in dumps that observe no environmental standards, where shredders, open fires, acid baths and broilers are used to recover gold, silver, copper and other valuable metals while spewing toxic fumes and runoff into the nation's skies and rivers.

Accurate figures about the shady and unregulated trade are hard to come by.

However, experts agree that it is overwhelmingly a problem of the developing world. They estimate about 70 percent of the 20-50 million tons (18-45 million metric tons) of

electronic waste produced globally each year is dumped in China, with most of the rest going to India and poor African nations.

According to the U.S. Environmental Protection Agency, it is 10 times cheaper to export e-waste than to dispose of it at home.

Imports slip into China despite a Chinese ban and Beijing's ratification of the Basel Convention, an international agreement that outlaws the trade. Industry monitor Ted Smith said one U.S. exporter told him all that was needed to get shipments past Chinese customs officials was a crisp US\$100 bill (equal to euro68) taped to the inside of each container.

"The central government is well aware of the problems but has been unable or unwilling to really address it," said Smith, senior strategist with the California-based Silicon Valley Toxics Coalition, which focuses on the electronics industry.

The European Union bans such exports, but Smith and others say smuggling is rife, largely due to the lack of measures to punish rule breakers. China, meanwhile, allows the import of plastic waste and scrap metal, which many recyclers use as an excuse to send old electronics there.

And though U.S. states increasingly require that electronics be sent to collection and recycling centers, even from those centers American firms can send the e-waste abroad legally because the U.S. Congress has not ratified the Basel Convention.

The results are visible on the streets of Guiyu, where the e-waste industry employs an estimated 150,000 people. Shipping containers of computer parts, old video games, computer screens, cell phones and electronics of all kinds, from ancient to nearly new, are dumped onto the streets and sorted for dismantling and melting.

Valuable metals such as copper, gold, and silver are removed through melting and acid baths, while steel is torn out for scrap and plastic is ground into pellets for other use.

This is big business for those who control the trade. Luxury sedans are parked in front of elaborate mansions in downtown Guiyu, adorned with fancy names such as "Hall of Southernly Peace."

Many of those who do the dirty work are migrants from poorer parts of China, too desperate or uninformed to care about the health risks.

In the town of Nanyang, a few minutes drive from Guiyu, a middle-aged couple from the inland province of Hunan sorts wiring in a mud-floored shack. Such work, including melting down motherboards, earns them about 800 yuan (US\$100; euro68) per month, said the husband, who answered reluctantly and wouldn't give his name.

Many houses double as smelter and home. Gas burners shaped like blacksmith's forges squat beside the front doors, their flues rising several stories to try to dissipate the toxic smoke.

Nonetheless, a visitor soon develops a throbbing headache and metallic taste in the mouth. The groundwater has long been too polluted for human consumption. The amount of lead in the river sediment is double European safety levels, according to the Basel Action Network, an environmental group.

Yet, aside from trucking in drinking water, the health risks seem largely ignored. Fish are still raised in local ponds, and piles of ash and plastic waste sit beside rice paddies and dikes holding in the area's main Lianjiang river.

Chemicals, including mercury, fluorine, barium, chromium, and cobalt, that either leach from the waste or are used in processing, are blamed for skin rashes and respiratory problems. Contamination can take decades to dissipate, experts say, and long-term health effects can include kidney and nervous system damage, weakening of the immune system and cancer.

"Of course, recycling is more environmentally sound," said Wu Song, a former university student who has studied the area. "But I wouldn't really call what's happening here recycling."

Those who control the business in Guiyu are hostile to outside scrutiny. Reporters visiting the area with a Greenpeace volunteer were trailed by tough-looking youths who notified local police, leading to a six-hour detention for questioning.

Government departments from the provincial to township levels refused to answer questions. The central government's Environmental Protection Agency did not reply to faxed questions.

Guiyu faces growing competition from other cities, notably Taizhou, about 725 kilometers (450 miles) up the coast in Zhejiang province. Meanwhile, collection yards have sprung up on the fringes of most major cities. The owners sell what they can to recyclers -- most of them unregulated -- and simply dump the rest.

Efforts to recycle e-waste safely in China have struggled. Few people bring in waste, because the illegal operators pay more. "We're not even breaking even," said Gao Jian, marketing director of New World Solid Waste in the northeastern city of Qingdao. "These guys pay more because they don't need expensive equipment, but their methods are really dangerous."

The city of Shanghai opened a dedicated e-waste handling center last year, but most residents and companies prefer the "guerrilla" junkies who ride through neighborhoods on flatbed tricycles ringing bells to attract customers, said Yu Jinbiao of the Shanghai

Electronic Products Repair Service Association, a government-backed industry federation.

"Those guerrillas are convenient and offer a good price," Yu said, "so there is a big market for them."