

10 years on, where did all the tsunami debris go?

By Fakhurradzie Gade and Niniek Karmini
The Associated Press

BANDA ACEH, Indonesia — Cars. Fishing boats. Houses. Entire villages. The 2004 tsunami left Banda Aceh with mountains of debris up to four miles inland.

Driving in the remade communities today, it's easy to wonder where it all went. Some of it is still there — recycled into road materials, buildings, and furniture. Some of it was burned, creating new environmental hazards. And most of it was simply washed out to sea.

Ten years after that gigantic wave engulfed the city of 4 million on the day after Christmas, Banda Aceh has been almost totally restored. The tangled mountains of rubbish are gone, and it's hard to imagine the destruction that once choked rivers, blocked streets, and ripped up trees by the roots.

The endless heaps of twisted metal, splintered wood, and broken concrete have all disappeared except for some scattered reminders for tourists and local residents. A drive along the coast highlights a stunning coastline with new houses perched near the beach. Lush mangroves have been planted to help withstand future tsunamis, fishermen are back at sea, and farmers are again working their rice paddies.

Still, authorities are concerned about the health and environmental risks posed by debris contaminated by oil, asbestos, and medical waste sitting on the seafloor off the coast and in 32 unregulated dump sites around the city.

"Unsafe disposal of waste will cause further environmental damage in the long



term," said Kuntoro Mangkusubroto, who headed the Aceh and Nias Reconstruction and Rehabilitation Agency, which led the massive clean-up effort and was dissolved in 2009 after the job was judged finished.

Banda Aceh, located on the northern tip of Indonesia's Sumatra island, was the city hardest hit by the disaster, which devastated hundreds of communities in more than a dozen countries around the Indian Ocean.

The tsunami left an estimated 13 million cubic yards of debris, most of it washed into the ocean, Mangkusubroto said. If all that was squeezed into a two-and-a-half-acre field, it would create a tower of trash 3,000 feet tall.

Cleaning up the wrecked city was a mammoth, often overwhelming, task.

For weeks, the streets were strewn with rubble, and rescue workers retrieved dead bodies from under houses and in ponds,

said Abdul Mutalib Ahmad, who worked at Banda Aceh's only landfill and witnessed the tsunami from atop a three-story building.

"Debris was everywhere," he said. "We thought we were facing [a] severe public health problem with the massive amount of waste."

At first, many survivors simply burned wood and other garbage. But authorities discouraged them from doing that because it polluted the air and could expose them to harmful toxins that might lead to respiratory problems. Some trash was covered with oil or chemicals, making it extremely flammable and hazardous, and in at least one case, a fire spread uncontrollably over a large area.

As key roads were cleared, trucks began carting tons of debris to the landfill every day for at least a year, Ahmad said.

But some waste inevitably got dumped at random sites around the city. They still contain leaky oil drums and asbestos-laced housing materials.

Hazardous waste that was found among the rubble was buried in a separate

DRAMATIC DIFFERENCE. Acehese children play near a house on which a fishing boat landed after it was swept away by the 2004 Indian Ocean tsunami in Banda Aceh, Indonesia. Ten years after the gigantic wave swept into the city of 4 million on the day after Christmas, Banda Aceh has been almost totally restored. The tangled mountains of rubbish are gone, and it's hard to imagine the destruction that once choked rivers, blocked streets, and ripped up trees by the roots. The house and the boat on it are now preserved as a monument. (AP Photo/Heri Juanda)

marked area inside the city's landfill, according to Tomi Soetjipto, the Indonesian spokesman for the U.N. Development Program (UNDP), which oversaw much of the clean-up effort. And nearly 50 tons of expired medications — some of it donated after the tsunami — sit in a warehouse awaiting safe disposal.

Three months after the tsunami, the UNDP started a \$40.5 million recycling program that employed 400,000 temporary workers to pluck wood and stone from the rubble and use the materials to rebuild roads and houses as well as to make furniture. The recycled waste was used to reconstruct 62 miles of roads and manufacture 12,000 pieces of wooden furniture, Mangkusubroto said.

The UNDP's Tsunami Recovery Waste Management Project cleared about 1.3 million cubic yards of debris from the city, enough to fill 400 Olympic swimming pools. It also trained about 1,300 government workers in overseeing the program.

Some 67,000 metric tons of other recyclable materials such as glass, plastic, and cardboard were diverted from landfills and sold in local markets.

Indonesian authorities say the clean-up was possible only with the help of the international community.

"Finally, the mounting tsunami rubbish was cleared. For such a huge job like that, the world didn't leave us alone to face it," Mangkusubroto said.

Karmini reported from Jakarta. Associated Press writer Margie Mason contributed to this report from Banda Aceh.

Merriam-Webster names 'culture' word of the year

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Google Works, which includes a description of a software fix by a few engineers that made ads more relevant on the search engine:

"It wasn't Google's culture that turned those five engineers into problem-solving ninjas who changed the course of the company over the weekend," wrote the authors, former Google CEO Eric Schmidt and former head of product development Jonathan Rosenberg.

"Rather it was the culture that attracted the ninjas to the company in the first place."

Before the word culture exploded, Sokolowski said, "we used to talk about 'society' a lot. Certain groups are taking 'society' out of their names now. It seems to be receding. Part of that seems to be because it's elitist. We're using the word culture more frequently in that place."

Not all lookup spikes are quite that complex. The reason je ne sais quoi landed at No. 6, for instance, is "dead simple," he said.

The fast-food drive-in chain Sonic, known for television spots featuring two goofy dudes eating in a car, had them munching on boneless chicken wings in September.

"I've finally found myself a wingman," goofy guy No. 1 says of the wings he hopes will make him a chick magnet.

"Oh right," sneers goofy guy No. 2, "gonna give you that certain je ne sais



WINNING WORD. The word "culture" is seen in the Merriam-Webster's Collegiate Dictionary in New York. Merriam-Webster has named "culture" as its 2014 word of the year. (AP Photo/Richard Drew)

quoi."

Responds No. 1: "Jenna said what?"

They mine the word play a couple more times, but you get the picture.

"Since September, when this ad came out, this word has been close to the Top 10 or in the Top 10 of our lookups almost every single day," Sokolowski said.

Fast-food aside, he called this year's list a relatively sober one.

Insidious, for example, received a bump early in the year when a new trailer was released for *Insidious: Chapter 3*, a prequel in the horror film franchise *Insidious*, out in June. The word surfaced in a big way again, on October 8, when a Texas hospital released a statement on the death of Thomas Eric Duncan, the first confirmed Ebola patient in the United States.

The statement spoke of his courageous battle and the hospital's profound sadness when he "succumbed to an insidious disease, Ebola."

Rounding out the Top 10 are innovation, surreptitious, autonomy, and morbidity.

"This is a fairly sober list. It was a fairly sober year," he concluded.

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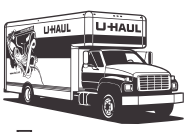
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