China Facts

NRDC Fights to Stop Mercury Pollution in China:

China is Cornerstone in Solving Global Mercury Problem

China uses and releases more mercury than any other country in the world. NRDC has been working with the Chemical Registration Center (CRC) of China's State Environmental Protection Administration over the past three years to develop improved estimates of China's mercury supply and demand. Our research shows a clear need for mercury reduction in many sectors and we've developed a detailed plan for how China can reduce this toxic pollutant.

China's Mercury Supply

China is one of only two countries in the world that still mines primary (virgin) mercury from the ground. However, unlike the other remaining mining nation, Kyrgyzstan, virtually all of China's mercury production is used domestically. In fact, China continues to import several hundred additional tons of mercury each year to meet demand within its own borders. Total supply was estimated at approximately 1,400 tons for 2004—nearly half of the global total. The mercury used in industry in China is supplied from four sources: legal mining, illegal mining, imports, and recycling. Although mercury mining decreased temporarily about a decade ago, with the closure of China's largest mine at the time, since 2002, domestic mercury production has increased steadily each year to meet China's internal demand, rising to an estimated 700 tons in 2004.

China's Mercury Demand

China's most significant use of mercury is unique as a catalyst for the manufacturing of polyvinyl chloride (PVC) plastic from coal. Other countries manufacture this plastic from oil and do not need a catalyst. Unless the industry changes in some meaningful way, the PVC sector, which accounted for more than 600 tons of the mercury consumed in China in 2004, is projected to use more than 1,000 tons per year by 2010 due to the explosive growth of the PVC sector in China. NRDC is working actively with government officials to develop practical options for reducing mercury use in this sector, including investigating changes in feedstock chemicals for manufacture, improving capture of mercury that escapes during manufacture, and substituting a non-mercury catalyst. We will host a specialized technical workshop on this topic in 2007 with international experts to further explore solutions to mercury use in PVC manufacturing.

NRDC
THE EARTH'S BEST DEFENSE

www.nrdc.org/china
chinainfo@nrdc.org

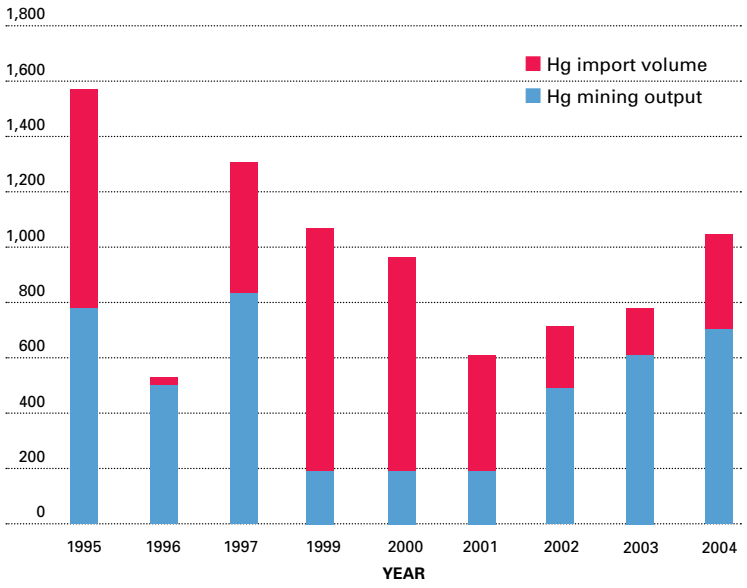
China Facts

NRDC Fights to Stop Mercury Pollution in China

Battery manufacturing is the second-largest legal use of mercury in China, at approximately 150 tons of demand annually. Fortunately, unlike the trend in PVC, mercury use in the battery sector has been declining precipitously. This is in response to market forces; both the European Union and the United States have banned the import of high-concentration mercury batteries or products that contain them. Declines are projected to continue, as many multinational corporations have recently pledged to voluntarily eliminate all remaining mercury in batteries in the next several years.

Small-scale gold mining (artisinal gold mining) is a third important source of mercury demand in China, currently estimated to consume more than 200 tons of mercury demand annually. This type of mining is illegal but ever-enticing to low-income people in the countryside in response to the high value of gold. Measuring devices such as thermometers and fluorescent lighting round out the currently quantified major uses of mercury in China. New clean production techniques for adding mercury to fluorescent lights promise important reductions in this sector. Efforts continue to complete the mercury use inventory.

China's Legal Mercury Mining Output and Mercury Imports, 1995-2004



The Health Threat of Mercury Is a Global Issue

Mercury is a potent neurotoxin that interferes with brain functions and the nervous system. The populations most vulnerable are pregnant women (because it affects fetuses) and small children. Even low levels of exposure to the developing infant can have negative effects on attention span, fine-motor function, language, visual-spatial abilities, and memory. In adults, chronic mercury poisoning can cause memory loss, tremors, vision loss, and numbness of the fingers and toes, and can adversely affect fertility, blood pressure regulation, and the heart.

Mercury enters the environment as industrial air pollution from factories. It then deposits into waterways and oceans and enters the food chain. Furthermore, mercury is a classic global pollutant; when released from a source in one country the potent metal readily disperses around the world, often falling far from its sources of release and entering distant food supplies. Many populations are further exposed to mercury from a variety of local sources including industrial emissions, consumer products, and waste disposal.

As a result, mercury pollution now endangers people on every continent. Governments around the world increasingly warn their populations to decrease their intakes of certain types of fish to avoid excess exposures to mercury.

Mercury Releases from China's Coal Combustion

Mercury is released unintentionally during the combustion of coal. Since China's need for energy is expanding so rapidly, its coal-fired power plants need an aggressive mercury control strategy to reduce the global mercury load.

International Determination and Cooperation Is Needed

NRDC and its partners around the world have developed a detailed plan to reduce mercury pollution by reducing supply and demand in the global marketplace. On the supply side, we are advocating for industrialized nations to restrict their exports of surplus mercury and to phase out mercury mining. The European Union, which is the largest exporter of mercury, is poised to implement this export ban. On the demand side, we are promoting alternatives to mercury-based production for the most important industrial uses. NRDC's long-term strategy delivers 75 percent reductions in mercury trade over a ten-year period, with significant gains made over the next two years. Successful reductions in China is a cornerstone of NRDC's global mercury effort.

NRDC
THE EARTH'S BEST DEFENSE