

# Water pollution in china assignment



River like blood in Ration, Axing About one third of the industrial waste water and more than 90 percent of household sewage in China is released into rivers and lakes without being treated. Nearly 80 percent of China's cities (278 of them) have no sewage treatment facilities and few have plans to build any and underground water supplies in 90 percent of the cities are contaminated. Water shortages and water pollution in China are such a problem that the World Bank warns of "catastrophic consequences for future generations. Half of China's population lacks safe drinking water. Nearly two thirds of China's rural population?? more than 500 million people?? use water contaminated by human and industrial waste. In summer of 2011, the China government reported 43 percent Of state-monitored rivers are so polluted, they're unsuitable for human contact. By one estimate one sixth of China's population is threatened by seriously polluted water. One study found that eight of 10 Chinese coastal cities discharge excessive amounts of sewage and pollutants into the sea, often near coastal resorts and sea farming areas.

Water pollution is especially bad along the coastal manufacturing belt. Despite the closure of thousands of paper mills, breweries, chemical factories and other potential sources of contamination, the water quality along a third of the waterway falls far below even the modest standards that the government requires. Most of China's rural areas have no system in place to treat waste water. A study by China's Environmental Protection Agency in February 2010 said that water pollution levels were double what the government predicted them to be mainly because agricultural waste was ignored.

China's 's first pollution census in 2010 revealed farm fertilizer was a bigger source of water contamination than factory effluent. Water pollution by Gaining Water pollution?? caused primarily by industrial waste, chemical fertilizers and raw sewage?? accounts for half of the \$69 billion that the Chinese economy loses to pollution every year. About 1 1. 7 million pounds of organic pollutants are emitted into Chinese waters every day, compared to 5. 5 in the united States, 3. 4 in Japan, 2. 3 in Germany, 3. 2 in India, and 0. In South Africa. Water consumed by people in China contains dangerous levels of arsenic, fluorine and sulfates. An estimated 980 million of China's 1. 3 billion people drink water every day that is partly polluted. More than 600 million Chinese drink water contaminated with human or animal wastes and 20 million people drink well water contaminated with high levels of radiation. A large number of arsenic-tainted water have been discovered. China's high rates of liver, stomach and esophageal cancer have been linked to water pollution.

In many cases factories fouling critical water sources are making goods consumed by people in the U. S. And Europe. Problems created by China's water pollution are not just confined to China either. Water pollution and garbage produced in China floats down its rivers to the sea and is carried by prevailing winds and currents to Japan and South Korea. Water pollution and shortages are a more serious problem in northern China than southern China. The percentage of water considered unfit for human consumption is 35 percent in northern China, compared to 10 percent in southern China.

Some 80 percent of the rivers in the northern province of Shanxi have been rated " unfit for human contact. " A poll conducted by the Pew Research

Center before the 2008 Olympics found that 68 percent of the Chinese interviewed said they were concerned about water pollution. Effects of Water Pollution in China Waters that used to team with fish and welcome swimmers now have film and foam at the top and give off bad smells. Canals are often covered layers of floating trash, with the deposits particularly thick on the banks. Most of it is plastic containers in a variety of sun-bleached colors.

Deformities in fish such as one or no eyes and misshapen skeletons and a decreasing numbers of rare wild Chinese sturgeon in the Yanking has been blamed on a paint chemical widely used in Chinese industry. China is the largest polluter of the Pacific Ocean. Offshore dead zones ?? oxygen-starved areas in the sea that are virtually devoid off life ?? are not only found in shallow water but also in deep water. They are mainly created by agricultural run-off?? namely fertilizer?? and reach their peak in the summer. In the spring freshwater creates a barrier layer, cutting off the salt water below from the oxygen in the air.

Warm water and fertilizers cause algae blooms. Dead algae sinks to the bottom and is decomposed by bacteria, depleting oxygen in deep water. Water Pollution and Health and Protests Nearly thirds of China's rural population?? more than 500 million people?? use water contaminated by human and industrial waste. Accordingly it is not all that surprising that gastrointestinal cancer IS now the number one killer in the countryside, More than 130 residents of two villages in Axing Province in southern China were poisoned by arsenic-contaminated water.

Arsenic showed up in their urine. The source is believed to be waste from a nearby metallurgy factory. In August 2009, a thousand villagers gathered outside a government office in Contour township in Human Province to retests a the presence of the Change Chemical factory, which villagers say has polluted water used to irrigate rice and vegetables and caused at least two deaths in the area. Sources of Water Pollution Major polluters include chemical factories, drug manufactures, fertilizer makers, tanneries, paper mills.

In October 2009, Greenback identified five industrial facilities in southern China's Pearl River delta that were dumping poisonous metals and chemicals?? such as beryllium, manganese, employment and terminologically?? into water used by local residents for drinking. The group found the toxins in pipes that led from the facilities. In February 2008 the Fauna textile factory, a multimillion dollar operation in Gudgeon Province that produces enormous quantities of T-shirts and other clothes for export, was shut down for dumping waste from dyes into the McMahan River and turning the water red.

It turned out the factory produced 47, 000 tons of waste a day and could only process 20, 000 tons with the rest being dumped into the river. It latter quietly reopened in a new location. Polluted Chinese Rivers and Lakes China has some of the world's worst water pollution. All of China's lakes and rivers are polluted to some degree. According to a Chinese government port, 70 percent of rivers, lakes and waterways are seriously polluted, many so seriously they have no fish, and 78 percent of the water from China's rivers is not fit for human consumption.

In a middle class development near Nanjing call Stratford a polluted river has buried underground in giant pipe while a new ornamental river, rally a lake, has been built above it. According to one government survey, 436 of China's 532 rivers are polluted, with more than half of them too polluted to serve as sources of drinking water, and 13 of 15 sectors of China's seven largest rivers are seriously polluted. The most polluted rivers are in the east and south around the major population centers with the pollution getting worse the further downstream one goes.

In some cases each city along a river dumps pollutants outside their city limits, creating increasingly more pollution for the cities down stream. Chinese environmentalist Ma Junk said, ' What's not receiving attention is the destruction of the river ecosystem, which I think will have long-tern effects on our water resources. ' Many rivers are filled with garbage, heavy metals and factory chemicals. Ouzos Creek in Shanghai stinks of human waste and effluence from pig farms. There have been devastating fish kills caused by the release of chemicals into the Houghton River in Annum province and Min Kiang River in Chuan Province.

The Hawaii flows through densely populated farmland between the Yellow and Yanking Rivers. Bottlenecks and elevation changes make the river both prone to flooding and collecting pollutants. Half the checkpoints along the Hawaii River in central and eastern China revealed pollution levels of " Grade 5" or worse, with pollutants detected in ground water 300 meters below the river. The Hawaii river in Annum province is so eluted all the fish have died and people have to drink bottled water to avoid getting sick. Some places

have water that is too toxic to touch and leaves behind scum when it is boiled.

Here, crops have been destroyed by irrigation water from the river; fish farms have been wiped out; and fishermen have lost their livelihoods. The South-North Water Transfer Project?? which will travel through the Hwaii basin?? is likely to deliver water that is dangerously polluted. The Squishing River, a tributary of the Hula whose name means “ clear water,” has turned black with trails of yellow foam from pollution from small mines that have opened up to meet the demand for magnesium, molybdenum and vanadium used in the booming steel industry.

River samples indicate unhealthy levels of magnesium and chromium. The vanadium refineries foul the water and produce smokes that deposits a yellowing powder on the countryside. The Lila River is also a mess. Gains made with new water treatment facilities have been canceled out by higher than ever levels of industrial pollution. In May 2007, 11 companies along the Sougning River, including local food companies, were ordered to shut down because of the heavily-polluted water they dumped into the river. A survey found that 80 percent exceeded pollution discharge limits.

One company turned off pollution control devices and dumped sewage directly into the river. In March 2008 contamination of the Donning River with ammonia, nitrogen and metal-cleaning chemicals turned the water red and foamy and forced authorities to cut water supplies for at least 200, 000 people in Hubei Province in central China. Cancer Villages and Polluted Waterways in China According to the World Bank, 60, 000 people die each

year from diarrhea, bladder and stomach cancer and other diseases directly caused by water- borne pollution. A study by the WHO came with a much higher figure.

Cancer village is a term used to describe villages or towns where cancer rates have risen dramatically because of pollution. There are said to be around 100 cancer villages along the Hwai River and its tributaries in Henan Province, especially on the Shaking River. Death rates on Hwai River are 30 percent higher than the national average. In 1995, the government declared that water from a Hwai tributary was undrinkable and the water supply for 1 million people was cut off. The military had to truck in water for a month until , 111 paper mills and 413 other industrial plants on the river were shut down.

In the village of Humidifying?? where a once-clear stream is now greenish black from factory wastes?? cancer accounted for 11 of the 17 deaths in 2003. Both the river and well water in the village?? the main source of drinking water?? have an acrid smell and taste produced by pollutants dumped upstream by tanneries, paper mills, a huge MS plant, and other factories. Cancer had been rare when the stream was clear. Attenuate is town six kilometers northwest of Asian that still uses an ancient system of moats to irrigate its crops.

The moats unfortunately don't drain so well and are now badly contaminated by household discharges and industrial waste. Visitors to the town are often overwhelmed by the rotten egg smell and feel faint after five minutes of breathing in the air. Vegetables produced in the fields are discovered and



sometimes black. Residents suffer from abnormally high cancer rates. One third of peasants in the village Bedaub are mentally ill or seriously ill. Women report high numbers of miscarriages and many people die in middle age. The culprit is believed to be drinking water drawn from the Yellow River downstream from a fertilizer plant.

The waters around Tuiton in Sneezing, the home of Highs Pharmaceutical, one of China's largest drug makers, are so contaminated with sludge and chemicals that fishermen complain their hands and legs become ulcerated, and in extreme cases need amputation. Studies have show that people who live around the city have high cancer and birth defect rates. Polluted Yanking, pearl and Yellow Rivers China's three great rivers?? the Yanking, Pearl and Yellow River?? are so filthy that it is dangerous to swim or eat fish caught in them. Parts of the Pearl River in Guanos are so thick, dark and soupy it looks like one could walk across t.

In recent years pollution has become a problem on the Yellow River. By one count 4, 000 of China's 20, 000 petrochemical factories are on the Yellow River and a third of all fish species found in the Yellow River have become extinct because of dams, falling water levels, pollution and over fishing. More than 80 percent of the Hay-Huh Yellow river basin is chronically polluted. In October 2006, a one kilometer section of the Yellow River turned red in the city of Languor in Gangs Province as result of a “ red and smell)'/ discharge from a Sewage pipe.

In December 2005, six tons of diesel Oil leaked into a arbitrary of the Yellow River from a pipe that cracked because of freezing conditions. It produced a

40 mile long slick. Sixty-three water pumps had to be shut down, including some in Jinn, the capital of Sandhog Province. The Yanking River is polluted with 40 million tons of industrial and sewage waste. Half of China's 20, 000 petrochemical factories lie on its banks. About 40 percent of all waste water produced in China?? about 25 billion tons?? flows into the Yanking, of which only about 20 percent is treated beforehand. The pollution has taken its toll on aquatic life.

Fish catches from the river declined from 427, 000 tons in the 1950s to 100, 000 tons in the 1990s. The Yanking is in danger of becoming a “ dead river” unable to sustain marine life or providing drinking water. According to report by the Chinese Academy of Sciences released in April 2007 the Yanking is seriously and largely irreversibly polluted. More than 600 kilometers of its length and almost 30 percent of its major tributaries are in critical condition. Sections of the Grand Canal that have water deep enough to accommodate boats are often filled with trash sewage and oil slicks.

Chemical waste and fertilizer and pesticide run-off empties into the canal. The water is mostly brownish green. People who drink it often get diarrhea and break out in rashes. Polluted Lakes, Canals and Coastal Areas in China  
Dead fish in Hangout pond  
Studies have showed that the quality of coastal waters are deteriorating quickly as a result of land-based pollution. The study found that 8. 3 billion tons of sewage was released in Gudgeon Province's coastal waters in 2006, 60 percent more than five years earlier. Altogether 12. Million tons Of polluted “ material was dumped in waters Off the southern province. Some lakes are in equally bad shape. China's great lakes?? the ATA, Chaos and Danish?? have water that is rated Grade V, the most

degraded level. It is unfit for drinking or for agricultural or industrial use.

Describing China's fifth- biggest lake a Wall Street Journal reporter wrote: " The slow, hot days of summer are here, and sun-fed algae is starting to clot the milky surface of Chaos Lake. Soon a living scum will carpet a patch the size of New York City. It will quickly blacken and rot...

The smell is so terrible you can not describe it. " Canals, See Change, Places Apple Accused of Making a River Runs Black In March 2012, Peter Smith wrote in The Times, Beyond the brick cottages of Tonguing runs Lou Ixia Bang, once the soul of the farming village and a river where, until the digital revolution, children swam and mothers washed rice. Today it flows black: a chemical mess heavy with the stench of China's high- tech industry ?? the hidden companion of the world's most famous electronics brands and a reason the world gets its gadgets on the cheap. Source: Peter Smith, The Times, March 9, 2012] The article then goes on to describe how the town of Tonguing Was being affected by chemical Waste from local factories that, as well as turning the river black, has caused a phenomenal" increase in cancer rates in Tonguing (according to research by five Chinese non-governmental organizations). The factories have grown up in the last few years and make circuit boards, touch screens and the casings of smartness, laptops and tablet computers.

As usual in these cases, Apple was mentioned - although the evidence appears to be a little sketchy as to whether these factories are actually players in the Apple supply chain. [Source: Speedometer UK/Europe blob] Smith wrote in the Times: " Workers at the Cedar factory, five meters from a kindergarten where children have implanted of dizziness and nausea, have <https://assignbuster.com/water-pollution-in-china-assignment-essay-samples/>

secretly confirmed that products had left the factory bearing the Apple trademark. ” Red Tides, Salt Tides and Algae Bloom in China Algae blooms, or transportation, in lakes are caused by too much nutrients in the water.

They turn lakes green and suffocate fish by depleting the oxygen. They are often caused by human and animal waste and run off of chemical fertilizers. Similar conditions create red tides in the sea. The government estimates that \$240 million worth of damage and economic losses was caused by 45 major red tides between 1997 and 1999. Describing a red tide near the town of Tomato that left the seas blanketed with dead fish and fishermen badly in debt, a fisherman told the Los Angeles Times, ‘ The sea turned dark, like tea.

If you talk to the fishermen around here, they’ll all break into tears. ” In some places the Chinese have tried to minimize the damage caused by algae blooms by pumping oxygen into the water and containing the blooms by adding clay which acts as a magnet for algae. A lack of funds keeps China from tackling the problem using more conventional means. A severe drought in 2006, caused large amounts of seawater to flow upstream on the Ganjiang River in southern China. In Macau salinity levels in the river jumped to almost three times above the World Health Organization standards.

To combat the problem water was diverted into it from the Beijing River in Guangdong. Water Bodies Struck by Algae Blooms in China Red tides have increased in their numbers and severity in coastal areas of China, particularly in Bohai Bay off eastern China, the East China Sea and the South China Sea. Large red tides have occurred around the Shantou Islands

near Shanghai. In May and June 2004, two huge red tides, covering a total area size of 1.3 million soccer fields, developed in Boohoo Bay.

One occurred near the mouth of the Yellow River and affected an area of 1,850 square kilometers. Another struck near the port city of Tannin and covered nearly 3,200 square kilometers. It was blamed on the dumping of large amounts of waste water and sewage into the bay and rivers leading into the bay. In June 2007, coastal waters off the booming industrial town of Sheehan were hit by one the biggest ever red tides. It produced a 50 square kilometer slick and was caused by pollution and persisted because of a lack of rain.

There were large algae blooms in freshwater lakes throughout China in 2007. Some were lamed on pollution. Others were blamed on drought. In Jungian Province the water level in one lake dropped to its lowest level in 50 years and became inundated with blue-green algae that produced smelly, undrinkable water. Lake ATA Pollution Lake ATA is often choked with industrial waste from factories producing paper, film and dyes, urban sewage and agricultural run-off. It sometimes is covered with green algae as a result of nitrogen and phosphate pollution.

Locals complain of polluted irrigation water that causes their skin to peel, dyes that turn the water red and fumes that sting their eyes. Dams built for load control and irrigation have prevented Lake Taxi's from flushing out pesticides and fertilizers that flow into it. Particularly damaging are phosphates which suck out life-sustaining oxygen. Starting in the sass a number of chemical factories were built on its shores. As of the late sass

there were 2, 800 chemical factories around the lake, some of which released their waste directly into the lake in the middle of the night to avoid detection.

Lake ATA Algae Blooms Algae bloom in Lake ATA In the summer of 2007, large algae blooms covered parts of Lake ATA and Lake Chaos, China's third and fifth largest freshwater lakes, making the water undrinkable and producing a terrible stench. Two million of residents of Wax, who normally rely on water from the Lake ATA for drinking water, couldn't bathe or wash dishes and hoarded bottled water that rose in price from \$1 a bottle to \$6 a bottle. Some turned on their taps only to have sludge emerge.

The bloom on Lake ATA lasted for six days until it was flushed out by rain and water diverted from the Yanking River. The bloom on Lake Chaos did not threaten water supplies. Reporting from Shoude, near Lake ATA, William Wan wrote in Washington Post, "I smell the lake before I see it, an overwhelming stench like rotten eggs mixed with manure. The visuals are just as bad, the shore caked with toxic blue-green algae. Farther out, where the algae is more diluted but equally fueled by pollution, it swirls with the currents, a vast network of green tendrils across the surface of ATA Lake. [Source: William Wan, Washington post, October 29, 2010]" Such pollution problems are now widespread in China after three decades of unbridled economic growth. But what's surprising about ATA Lake is the money and attention that's been spent on the problem and how little either has accomplished. Some of the country's highest-ranking leaders, including Premier Wen Jiabao, have declared it a national priority. Millions of dollars have been poured into the cleanup. And yet, the lake is still a mess. The

water remains undrinkable, the fish nearly gone, the fetid smell lingering over villages. [Ibid] At ATA Lake, part of the problem is that the same industrial factories poisoning the water also transformed the region into an economic powerhouse. Shutting them down, local leaders say, would destroy the economy overnight. In fact, many Of the factories shut down during the 2007 scandal have since reopened under different names, environmentalists say. " [Ibid] " ATA Lake is the embodiment of China's losing fight against pollution. This summer, the government said that, despite stricter rules, pollution is rising again across the country in key categories such as emissions of sulfur dioxide, which causes acid rain.

Just months before, the government had revealed that water pollution was more than twice as severe as previous official figures had shown. " [Ibid] The algae bloom on Lake ATA was caused by toxic contractible, commonly called pond scum. It turned much of the lake lordliest green and produced a terrible stench that could be smelled miles away from the lake. The Lake ATA bloom became a symbol of China's lack of environmental regulations. Afterwards a high-level meeting on the lake's future was convened, with Beijing closing down hundreds of chemical factories and promising to spend S 14. 4 billion to clean up the lake.

Lake ATA Activist We Oiling a peasant who worked for a while as a salesman, had been trying to draw attention to the condition of Lake ATA for more than a decade. William Wan wrote in Washington Post, " The story of ATA Lake is a story of high-level remises and lower-level reneging, of economic interests superseding environmental ones. And it is an illustration of China's awkward relationship with environmental activists, who challenge the government's

authority but are often the loudest force pushing its new environmental priorities on the local level-No one knows this story better than We Oiling.

For almost two decades, We – a peasant living along the lake,- waged a one-man campaign to clean it up. He kept track Of the thousands of factories springing up along its shores and took pictures of the untreated waste they discharged into the lake. He mailed water samples to inspectors, called TV stations and spoke out in the face of threats from factory bosses and local leaders. ” [Source: William Wan, Washington Post, October 29, 2010] ” His actions cost him his job, threatened his marriage and landed him in prison for three years.

He returned home this spring to find the lake virtually unchanged. Now, with no job prospects and few friends willing to risk a visit, he spends much of his time alone at home, mulling over what he has sacrificed – whether it was worth it, and whether he should continue. ” [Ibid] “ To hear We’s story Irishman is to witness the paranoia he now lives in. A short, baby-faced man, We, 42, assumes his cellophane is tapped and prefers meeting strangers in obscure spots outside town. After agreeing to take a reporter to his home, We pulls up his shorts to reveal a two-inch scar on his inner thigh.

He said he got it a few weeks ago by the lake when two thugs attacked him with a knife. He points to rounder scars along his arm and his hands – cigarette burns, he said, from police interrogations. ” [Ibid] “ At first, there were other villagers reporting the pollution, too,” said Han Yapping, 60, who was one of them. But everyone gave up under the pressure of authorities. He was the only one left. ” After Chinese and foreign media picked up his Story,



We became a national hero and by 2005 was being praised by Chinese and international organizations.

That year, China's highest-ranking legislative body, the National People's Congress, declared him one of China's top 10 environmental activists and flew him to a ceremony at the Great Hall of the People in Beijing. " Lake ATA Activist Harassed, Arrested and Imprisoned Around the time of the algae bloom We Oiling was sentenced to three years in jail on trumped charges. At the time of his arrest he was preparing to go to Beijing with photographs and other documentation of dumping by chemical factories in the lake.

We had been particularly outraged by the designation of Hexing, the home of many chemical factories, as a " Model City for Environmental Protection. " Wow's conviction was based on a confession that We said was coerced with torture and five straight days of sleep deprivation. William Wan wrote in Washington Post, " All that changed in 2007, when – just two years after Beijing lauded him for his work trying to protect the lake – We earned that the central government planned to award his city the title of " National Model City for Environmental Protection," praising the very local officials We had fought for years.

We was furious. He started gathering more evidence, telling friends he planned to sue the central government over the title. Within weeks, he was arrested. " [Source: William Wan, Washington post, October 29, 2010] " The exact charges changed several times, and most were ultimately dropped. In the end, Wow's conviction on two charges of blackmail and fraud relied heavily on his confession, which We says he signed after eyeing hung by the

arms for five days and beaten with branches. While he was in prison, authorities put his wife and daughter under 24-hour surveillance.

Shortly before Wow's release, the guards in front of his house were replaced by three traffic cameras erected on the single-lane road leading to his farmhouse. " [Ibid] In the face of this bleak future, We now questions whether he sacrificed everything for nothing. " Maybe I should have just focused on making a living, raising my family," he says in his living room, holding his wife's string of carved monkeys. " But this is where I live. A man cannot just UN away to Shanghai-La while his home is ruined. " Across the room, Wow's wife says little.

Because We can't find a job, she now works two – one at a wool factory and the second, ironically, at a chemical plant on ATA Lake. " [Ibid] "

Improvements" at ATA Lake As ATA Lake became a national scandal, hundreds of industrial plants were shut down, local officials were dismissed, and billions of dollars were committed to clean it up. It became part of the new nationwide push to tackle air quality, forest preservation and water pollution. Beijing has earmarked \$16 billion to clean up Lake ATA. William Wan wrote in Washington Post, Progress since then, however, has proved elusive.

By some standards, the lake has improved. The level of nitrogen and phosphorus – ingredients for algae growth – have decreased slightly. By others measures, such as overall Water quality, the lake has gotten worse. According to government statistics in July, 85 percent of the lake was put in the worst possible category for water quality, unsuitable for drinking,

irrigation or even recreation. ” [Source: William Wan, Washington Post, October 29, 2010] “ Meanwhile, plant executives argue they have already done their part by installing new discharge treatment canines.

But water quality experts jokingly call the new equipment “ on/off machines,” because they say the machines are only turned on during inspections. But the worst sign of all is the fact that almost every city on the lake has quietly begun finding other sources of drinking water. The projects, which are costly but seldom publicized, indicate that even as local authorities devote billions to repairing the lake, few believe it will recover. ” “ The fear is that once these cities no longer depend on the lake for drinking water, the urgency will disappear,” said Ma Junk, director of the non-governmental

Institute of Public and Environmental Affairs. [Ibid] Efforts to Combat Water Pollution in China Water treatment plant Alarmed by the amount of pollution in its rivers, China begun enacting new environmental regulations and laws and taking more action to clean up its rivers. Beijing is closing polluting factories, building new sewage treatment plants and changing agricultural practices.