DOWNLOAD PDF INTERNATIONAL IMPLICATIONS OF DUMPING POISONOUS GAS AND WASTE INTO OCEANS.

Chapter 1 : Poison Values | HuffPost

International implications of dumping poisonous gas and waste into oceans: hearings before the Subcommittee on International Organizations and Movements of the Committee on Foreign Affairs, House of Representatives, Ninety-first Congress, first session, May 8, 13, 14, and 15,

Joe made in a speech by Steven Seagal How many of you out there have heard of alternative engines? Engines that can run on anything from alcohol to garbage and water? Or carburetors that can get hundreds of miles to the gallon? Or electric or magnetic engines that can practically run for ever? The concept of the internal combustion engine has been obsolete for fifty years. But because of the oil cartels and corrupt government regulations we, and the rest of the world, have been forced to use gasoline for over one hundred years. Big business is primarily responsible for destroying the water we drink, the air that we breathe and the food we eat. They have no care for the world they destroy. Only for the money they make in the process. How many oil spills can we endure? Millions and millions of gallons of oil are now destroying the oceans and the many forms of life it supports. But the plankton is dying. But in doing a little research I realized these people brought their toxic waste all over the world. They basically control the legislation, and in fact they control the law. They influence the media so that they can control our minds. They make it a crime to speak out for ourselves. Unfortunately this will affect our children. We go to work each day and right under our noses we see our car and the car in front of us spewing noxious and poisonous gasses that are cumulative poisons. These poisons kill us slowly, even when we see no effect. The most common and God given rights have been taken away from us. Unfortunately the reality of our lives is so grim nobody wants to hear it. Now I have been asked what we can do. I think we need a responsible body of people that can actually represent us rather than big business. This body of people must not allow the introduction of anything into our environment that is not absolutely biodegradable or able to be chemically neutralized upon production. And finally, as long as there is profit to be made from the polluting our earth, companies and individuals will continue to do what they want. What do you think of this post?

Chapter 2 : Years of secret dumping radioactive trash into the sea,by US navy Â« nuclear-news

visual impact. waste mix wiht rain water, wash away into stream, contaminate water (ground water for crops, drinking water, etc.) What is the problem with ocean dumping Every year some 25, metric tons of packaging, including half a million bottles, cans, and plastic containers, are dumped at sea.

Peace journalist Poison Values Poison gas is not only a "moral obscenity" -- one the United States stockpiled for decades after its use was banned in warfare -- but a metaphor for human recklessness and wasted science. And the more I think about it, the more I marvel at the persistent insanity of its existence. Attempting to get rid of it -- by burying it, burning it, dumping it -- has consequences almost as deadly as firing it off in battle. The enormous toxic mess that encircles the globe needs serious and sustained attention, something present-day governments are, seemingly, incapable of. The fact that this mess of our own making exists at all ought to inspire not missiles and self-righteousness but the deepest questions we know how to ask. And the first question is this: The Geneva Protocol, in response to the horrors of World War I, banned the use of asphyxiating and poisonous gases in war, but not, incredibly, their development or manufacture. It took the civilized world, the one John Kerry referenced in his condemnation of Bashar al-Assad, another seven decades to do that. In the meantime, there was plenty of manufacturing, developing and stockpiling of poison gas weaponry going on, including in the United States, up to and well beyond World War II. One factual tidbit I find fascinating is that Otto Ambros , a Nazi scientist and co-inventor of Sarin, convicted of crimes against humanity at Nuremberg, came to the United States in , after serving half his term, and began advising the U. Could the reality of geopolitics be exposed in starker relief? For all the moral pretenses of war and militarism, the game has no moral boundaries whatsoever. The fact that the initial U. Of course the moral issue was just a pretext to go to war, but even on its own terms, this was a preposterous "solution": Bombing storage facilities could easily release the toxic substances being stored. The Chemical Weapons Convention treaty banned its manufacture and stockpiling and gave signing nations a decade to get rid of their stockpiles. This kind of cynicism is all we ask of military planners, quick as they are to invoke moral rectitude as a pretext for using their lethal toys. And remember, most of our stockpiled weapons were manufactured in the wake of the Geneva Convention banning their use. Consider that, for many decades prior to the onset of environmental consciousness, the U. Eight years ago, John M. Summing up his findings afterward, I wrote: Turns out, according to Army documents the paper obtained, from the end of World War II until , the Army jettisoned 64 million pounds of nerve and mustard agents, , chemical-filled bombs, land mines and rockets and more than tons of radioactive waste into the coastal waters off 11 states that virtually ring the country; has only a vague idea where these dump sites are; has made only haphazard stabs at monitoring a few of the sites even though leakage and container breakdown are inevitable; and has not bothered to inform the affected states or other agencies about the dumping. Contact him at koehlercw gmail. Do you have information you want to share with HuffPost?

Chapter 3 : Rapid warming of the oceans Â« Antinuclear

Years of secret dumping radioactive trash into the sea,by US navy. Sailors on old warship dumped thousands of tons of radioactive waste for years Tampa Bay Times, William R. Levesque, Times Staff Writer 22 Dec 13 They asked the dying Pasco County man about his Navy service a half-century before.

It covers the deliberate disposal at sea of wastes or other matter from vessels, aircraft, and platforms. It does not cover discharges from land-based sources such as pipes and outfalls, wastes generated incidental to normal operation of vessels, or placement of materials for purposes other than mere disposal, providing such disposal is not contrary to aims of the Convention. It entered into force in As of September , there were 89 Parties to the Convention. It entered into force on 30 August when 15 nations ratified. As of 1 October , there were 78 Contracting Parties to the Convention. The London Convention consists of 22 Articles and three Annexes. Annex III lays out general technical factors to be considered in establishing criteria for issuance of ocean dumping permits. The main objective of the London Convention is to prevent indiscriminate disposal at sea of wastes that could be liable for creating hazards to human health; harming living resources and marine life; damaging amenities; or interfering with other legitimate uses of the sea. The Convention extends its scope over "all marine waters other than the internal waters" of the States and prohibits the dumping of certain hazardous materials. It further requires a prior special permit for the dumping of a number of other identified materials and a prior general permit for other wastes or matter. Since its entering into force in , the convention has provided a framework for international control and prevention of marine pollution within which the contracting parties have achieved continuous progress in keeping the oceans clean. Among its milestones are the ban on ocean disposal of low-level radioactive wastes and the resolutions to end the dumping and incineration of industrial wastes. The consultative meeting of the contracting parties to the London convention is the governing and political decision-making body of the convention. A scientific group on dumping, composed of government experts from the parties to the convention a responsible to address any scientific requests from the consultative meeting, including the preparation of lists of hazardous substances, developing guide-lines on the implementation of the convention, and maintaining awareness of the impacts on the marine environments of inputs from all waste sources. Now, instead of prohibiting the dumping of certain listed hazardous materials, the parties are obligated to prohibit the dumping of any waste or other matter that is not listed in Annex 1 "the reverse list" of the protocol. Dumping of wastes or other matter on this reverse list requires a permit. Parties to the protocol are further obligated to adopt measures to ensure that the issuance of permits and permit conditions for the dumping of reverse list substances comply with Annex 2 the Waste Assessment Annex of the protocol. The substances on the reverse list include dredged material; sewage sludge ; industrial fish processing waste; vessels and offshore platforms or other man-made structures at sea; inert, inorganic geological material; organic material of natural origin; and bulky items including iron, steel, concrete and similar materials for which the concern is physical impact, and limited to those circumstances where such wastes are generated at locations with no land-disposal alternatives. In addition, the protocol prohibits altogether the practice of incineration at sea, except for emergencies, and prohibits the exports of wastes or other matter to non-Parties for the purpose of dumping or incineration at sea. The protocol has effectively moved the scope of the original London convention landwards, relating it to the policy and management issues of land as well as sea wastes disposal. Indicative for this shift are such elements as the codification of the precautionary approach and the establishment of requirements such as the "waste prevention audit," the identification and control of the sources of contamination for certain materials, and the collaboration with relevant local and national agencies that are involved in point and non-point source pollution control. In this context, Integrated Coastal Management ICM comes as a natural framework for effective implementation of the objectives of the protocol. Through its International Program Office, NOS would also contribute to the international co-operation efforts towards meeting the objectives of the Protocol.

Chapter 4 : US Plan to Incinerate Chemical-Arms Stocks Rouses Opposition - www.nxgvision.com

Since World War II, accidents were caused here by chemical waste, in particular mustard gas. Tonnes of poisonous gas shells in Belgian waters One of the largest chemical weapon dumps in the North Sea is situated off the Belgian coast, not very far from the Dutch border.

Cathode ray tubes used in TVs, computer monitors, ATM, video cameras, and more Breaking and removal of yoke, then dumping Lead, barium and other heavy metals leaching into the ground water and release of toxic phosphor Printed circuit board image behind table â€" a thin plate on which chips and other electronic components are placed De-soldering and removal of computer chips; open burning and acid baths to remove metals after chips are removed. Air emissions and discharge into rivers of glass dust, tin, lead, brominated dioxin, beryllium cadmium, and mercury Chips and other gold plated components Chemical stripping using nitric and hydrochloric acid and burning of chips PAHs, heavy metals, brominated flame retardants discharged directly into rivers acidifying fish and flora. Tin and lead contamination of surface and groundwater. Air emissions of brominated dioxins, heavy metals, and PAHs Plastics from printers, keyboards, monitors, etc. Shredding and low temp melting to be reused Emissions of brominated dioxins, heavy metals, and hydrocarbons Computer wires Open burning and stripping to remove copper PAHs released into air, water, and soil. Information security[edit] E-waste presents a potential security threat to individuals and exporting countries. Hard drives that are not properly erased before the computer is disposed of can be reopened, exposing sensitive information. Credit card numbers, private financial data, account information, and records of online transactions can be accessed by most willing individuals. Organized criminals in Ghana commonly search the drives for information to use in local scams. Recycling is an essential element of e-waste management. Properly carried out, it should greatly reduce the leakage of toxic materials into the environment and mitigate against the exhaustion of natural resources. However, it does need to be encouraged by local authorities and through community education. One of the major challenges is recycling the printed circuit boards from the electronic wastes. The circuit boards contain such precious metals as gold, silver, platinum, etc. One way e-waste is processed is by melting circuit boards, burning cable sheathing to recover copper wire and open- pit acid leaching for separating metals of value. Alternative methods such as cryogenic decomposition have been studied for printed circuit board recycling, [58] and some other methods are still under investigation. Properly disposing of or reusing electronics can help prevent health problems, reduce greenhouse-gas emissions, and create jobs. Environmental Protection Agency encourages electronic recyclers to become certified by demonstrating to an accredited, independent third party auditor that they meet specific standards to safely recycle and manage electronics. This should work so as to ensure the highest environmental standards are being maintained. Two certifications for electronic recyclers currently exist and are endorsed by the EPA. Customers are encouraged to choose certified electronics recyclers. Responsible electronics recycling reduces environmental and human health impacts, increases the use of reusable and refurbished equipment and reduces energy use while conserving limited resources. Certified companies ensure they are meeting strict environmental standards which maximize reuse and recycling, minimize exposure to human health or the environment, ensure safe management of materials and require destruction of all data used on electronics. Once certified, the recycler is held to the particular standard by continual oversight by the independent accredited certifying body. A certification board accredits and oversees certifying bodies to ensure that they meet specific responsibilities and are competent to audit and provide certification. This list only includes manufacturer and retailer programs that use the strictest standards and third-party certified recycling locations, to provide consumers assurance that their products will be recycled safely and responsibly. CEA research has found that 58 percent of consumers know where to take their end-of-life electronics, and the electronics industry would very much like to see that level of awareness increase. Consumer electronics manufacturers and retailers sponsor or operate more than 5, recycling locations

nationwide and have vowed to recycle one billion pounds annually by , [64] a sharp increase from million pounds industry recycled in Participants of the Challenge are manufacturers of electronics and electronic retailers. These companies collect end-of-life EOL electronics at various locations and send them to a certified, third-party recycler. The ETBC aims to place responsibility for disposal of technology products on electronic manufacturers and brand owners, primarily through community promotions and legal enforcement initiatives. It provides recommendations for consumer recycling and a list of recyclers judged environmentally responsible. Many stakeholders agreed there needs to be a higher standard of accountability and efficiency to improve the systems of recycling everywhere, as well as the growing amount of waste being an opportunity more so than downfall since it gives us more chances to create an efficient system. To make recycling competition more cost-effective, the producers agreed that there needs to be a higher drive for competition because it allows them to have a wider range of producer responsibility organizations to choose from for e-waste recycling. The grassroots Silicon Valley Toxics Coalition promotes human health and addresses environmental justice problems resulting from toxins in technologies. There have also been efforts to raise awareness of the potentially hazardous conditions of the dismantling of e-waste in American prisons. The Silicon Valley Toxics Coalition, prisoner-rights activists, and environmental groups released a Toxic Sweatshops report that details how prison labor is being used to handle e-waste, resulting in health consequences among the workers. In many developed countries, electronic waste processing usually first involves dismantling the equipment into various parts metal frames, power supplies, circuit boards, plastics , often by hand, but increasingly by automated shredding equipment. The disadvantage is that the labor is cheapest in countries with the lowest health and safety standards. In an alternative bulk system, [75] a hopper conveys material for shredding into an unsophisticated mechanical separator, with screening and granulating machines to separate constituent metal and plastic fractions, which are sold to smelters or plastics recyclers. Such recycling machinery is enclosed and employs a dust collection system. Some of the emissions are caught by scrubbers and screens. Magnets, eddy currents , and Trommel screens are employed to separate glass, plastic, and ferrous and nonferrous metals, which can then be further separated at a smelter. Leaded glass from CRTs is reused in car batteries, ammunition, and lead wheel weights, or sold to foundries as a fluxing agent in processing raw lead ore. Copper, gold, palladium, silver and tin are valuable metals sold to smelters for recycling. Hazardous smoke and gases are captured, contained and treated to mitigate environmental threat. These methods allow for safe reclamation of all valuable computer construction materials. Hewlett-Packard product recycling solutions manager Renee St. Denis describes its process as: Reuse is an alternative option to recycling because it extends the lifespan of a device. Devices still need eventual recycling, but by allowing others to purchase used electronics, recycling can be postponed and value gained from device use. Benefits of recycling[edit] Recycling raw materials from end-of-life electronics is the most effective solution to the growing e-waste problem. Most electronic devices contain a variety of materials, including metals that can be recovered for future uses. By dismantling and providing reuse possibilities, intact natural resources are conserved and air and water pollution caused by hazardous disposal is avoided. Additionally, recycling reduces the amount of greenhouse gas emissions caused by the manufacturing of new products. Materials that can be recycled include "ferrous iron-based and non-ferrous metals, glass, and various types of plastic. Ferrous metals such as steel and iron can be also be re-used. Responsible recycling ensures best management practices of the electronics being recycled, worker health and safety, and consideration for the environment locally and abroad. Since many companies were responsible for the recycling of their own products, this imposed responsibility on manufacturers requiring many to redesign their infrastructure. As a result, manufacturers in Japan have the added option to sell the recycled metals. There are two drivers in particular for this trend. On the one hand, consumer demand for low cost products mitigates against product quality and results in short product lifetimes. Consumer dissatisfaction with this state of affairs has led to a growing repair movement. But the movement extends far beyond farm machinery with, for example, the restricted repair options offered by Apple coming in for criticism. Manufacturers often counter with safety concerns resulting from

unauthorised repairs and modifications. They are all recycled in many countries since they contain lead, mercury and cadmium. Some computer components can be reused in assembling new computer products, while others are reduced to metals that can be reused in applications as varied as construction, flatware, and jewellery. Substances found in large quantities include epoxy resins , fiberglass , PCBs , PVC polyvinyl chlorides , thermosetting plastics , lead, tin, copper, silicon, beryllium, carbon, iron, and aluminium. Elements found in small amounts include cadmium , mercury , and thallium. Almost all electronics contain lead and tin as solder and copper as wire and printed circuit board tracks , though the use of lead-free solder is now spreading rapidly. The following are ordinary applications: It is known to be carcinogenic. A typical inch cathode ray tube may contain 1. Adverse effects of lead exposure include impaired cognitive function, behavioral disturbances, attention deficits, hyperactivity, conduct problems, and lower IQ. Health effects include sensory impairment, dermatitis, memory loss, and muscle weakness. Exposure in-utero causes fetal deficits in motor function, attention, and verbal domains. Cadmium Found in light-sensitive resistors, corrosion-resistant alloys for marine and aviation environments, and nickel-cadmium batteries. The most common form of cadmium is found in Nickel-cadmium rechargeable batteries. The sale of Nickel-Cadmium batteries has been banned in the European Union except for medical use. When not properly recycled it can leach into the soil, harming microorganisms and disrupting the soil ecosystem. Exposure is caused by proximity to hazardous waste sites and factories and workers in the metal refining industry. The inhalation of cadmium can cause severe damage to the lungs and is also known to cause kidney damage. A known carcinogen after occupational inhalation exposure. Health effects include liver damage, kidney damage, heart damage, eye and throat irritation. When released into the environment, it can create sulphuric acid through sulphur dioxide. Health effects include impaired development of the nervous system, thyroid problems, liver problems. PBBs were banned from to on. PCBs were banned during the s. PFOAs are formed synthetically through environmental degradation. Studies in mice have found the following health effects: Hepatotoxicity, developmental toxicity, immunotoxicity, hormonal effects and carcinogenic effects. Studies have found increased maternal PFOA levels to be associated with an increased risk of spontaneous abortion miscarriage and stillbirth. Increased maternal levels of PFOA are also associated with decreases in mean gestational age preterm birth , mean birth weight low birth weight , mean birth length small for gestational age , and mean APGAR score. Occupational exposures associated with lung cancer, other common adverse health effects are beryllium sensitization, chronic beryllium disease, and acute beryllium disease. PVC such as chlorine tend to bioaccumulate. This poses a problem as human and animals can ingest them. Additionally, exposure to toxins can result in reproductive and developmental health effects. On the other hand, in rapidly dividing cells, unrepaired DNA damages that do not kill the cell by blocking replication will tend to cause replication errors and thus mutation Elevated Reactive Oxygen Species ROS levels can cause damage to cell structures oxidative stress [94] This section does not cite any sources. Please help improve this section by adding citations to reliable sources.

Chapter 5 : The World Factbook â€" Central Intelligence Agency

EP EHR12/ Problem lakes in the United States, EP W 29/ Maintaining the course for clean water: a citizen's guide to the section water quality management program / National Wildlife Federation.

Posted in Conservation , Disasters , Famous news stories , Nature , Sea , Wildlife on Thursday, 9 June Click on any image for details about licensing for commercial or personal use. This edited article about oil pollution of the sea originally appeared in Look and Learn issue number published on 16 August The clean-up in Cornwall after the oil-spill from the stricken Torrey Canyon, by Harry Green Buffeted by winds and mountainous waves, the huge oil tanker ran onto the treacherous rocks. There she suffered the relentless pounding of the seas and her cargo of over , tons of crude oil spilled out unhampered into the water from her broken sides. This tanker, the Torrey Canyon, ran aground in March off the Cornish coast. About , seabirds were killed, marine life was severely damaged, and once beautiful coastlines of England and France were made unsightly by a black, sticky covering over rocks and sand. Every day, 30, barrels of oil poured into the sea, causing a series of gigantic slicks to travel menacingly towards the Texan coast. Its vast size and uncharted depths have led men through the ages to think of the sea as boundless. The Torrey Canyon disaster was one of many accidents, but in addition every day the sea is being polluted deliberately. The Norwegian seaman Thor Heyerdahl reported having seen oil, plastic bottles, beer cans and many other kinds of man-made rubbish far out in the mid-Atlantic. Anyone who goes swimming from a beach knows how much waste material floats around nearer the shore. Pollution of the sea is not only ugly to look at, it is also highly dangerous to the lives of men and animals. They can be killed by oil, and waste chemicals may well reduce their ability to produce oxygen by photosynthesis. Fish is an extremely important source of protein for many peoples in the world. More than million tonnes are caught every year. Yet various kinds of pollutants can become stored in their flesh. At that time, doctors became very disturbed by symptoms of nervous illness which were being shown by many people in this seaport. Eventually, the horrifying truth was revealed. Local shellfish were found to be full of deadly mercury, which caused the sickness in people who ate them. A plastics factory had been dumping its waste products at sea, and the fish had taken in and concentrated the poisonous metal. Many who survived suffered permanent disablement, and pregnant women who had eaten the fish produced children unable to see, hear, talk or walk. Much toxic waste reaches the sea in the rivers which run into it. Every year, the British River Trent discharges tons of copper, tons of zinc, tons of nickel and , of chlorides into the North Sea. Pesticides such as DDT wash off the land into rivers, and find their way to the sea, affecting fish and seabirds. As at Minamata, industry consciously dumps much of its poisonous waste in the ocean, often because it is banned from doing so on land. The unpredictable effects of tides and currents bring these health hazards near to human habitation only too often. Sometimes governments are the culprits. In , an international row broke out when the US military announced their intention to dump 12, canisters of lethal nerve gas near the Bahamas, right in the path of the Gulf Stream. Opponents of the scheme argued that strong currents in this area could cause the canisters to move around and break up, or wash them close to Atlantic fishing grounds. The US went ahead as planned. Radioactive waste from nuclear reactors is a very difficult material to dispose of safely. Converted into a glassy solid to contain the radiation, the killer waste will probably be sunk very deep in the abysses of the ocean. If the radioactive material should leak, scientists hope that the contamination would remain around the dumping ground. They admit, though, that the waste remains highly dangerous for many centuries, so nobody can really predict that such storage areas will always be safe. Sewage tipped into the sea is not generally a threat to wildlife, in fact many sea creatures and plants thrive near sewers. For man, the situation is different. Bathing in waters polluted by sewage is a hazard to health, and shellfish can carry dangerous bacteria. The lack of strong tides in the Mediterranean has made this a special problem for bordering countries. Italian beaches have been closed to swimmers on a number of occasions over the last few years. In Genoa in , bathers were told to go ahead and swim, but first to be inoculated against

tetanus and typhoid! Many British resorts still pump their sewage directly into the sea, although none mention this fact in their holiday brochures. Some seas are more vulnerable to pollution than others. The Baltic is very enclosed, so pollutants remain for many years. Its waters are now so poisoned that its wildlife is dying, and it may eventually become nothing more than a stagnant pond. Ten years ago some Danish bathers were seriously burned by mustard and nerve gases in the waters of the Baltic. This confirmed a long-held suspicion that Germany had dumped gas bombs in this sea after the last war. The DDT level in its waters is very high, often making fish too poisonous to eat. Containers of 7, tons of arsenic thrown into the Baltic forty years ago are now thought to be breaking up. And as if all this were not enough, enormous quantities of sewage and organic waste are dumped into it every day. An international agreement on the control of dumping at sea was signed in This has somewhat restricted bad practices, although the US refused to accept any limitations on the activities of military vessels. In Britain, the Pollution Act in forbade the pumping of untreated sewage into the sea near the coast, although many local authorities have still not complied. Oil slicks at sea were once dispersed by detergents which killed more marine life than the oil. Less destructive methods now include skimming the oil from the top of the water, booms to prevent it from spreading, burning, sinking it with sand or ash, or using absorbants. Seems overwhelming to do on site, perhaps telling as many folks as possible via newspapers and magazines would be a better way to set up prevention measures for our oceans.

Chapter 6 : Ivory Coast Toxic Dumping Case Settled for US$ Million

Problems Caused By Non-Biodegradable Waste are. 1-Non-Biodegradable Waste cannot break down by bacteria, they accumulate in the dumping areas. 2-If we try to burn these wastes to destroy them, they release harmful and poisonous gases.

A time bomb under the Northern seas Bombs away. Thousands of tonnes of chemical weapons will corrode and start to leak. In the Baltic, the possible consequences are being investigated. Ekke Overbeek Nobody knows exactly how many discarded chemical weapons are hidden in the waters around Europe. For instance, in the Baltic, where after World War II the Allies dumped munitions originating from German arsenals, there are at least 40, tonnes, of which at least 13, tonnes contain poisonous substances. A sixth of this amount would be sufficient to kill all life in the Baltic for a hundred years. Not a reassuring idea, for anyone who knows that mustard gas, chloropicrin, phosgene, diphosgene and arsenic compounds are packed in cases and drums that will rust through sooner or later. No one knows when this will happen, but it is certain to. Ten years ago, the Russian scientist Aleksander Korotenko predicted that somewhere between and the corrosion will have progressed so far that the poison will start to leak out. Sixteen percent is sufficient to wipe out all life in the Baltic. He works at the Institute of Oceanology in Sopot , a seaside town in Poland. Also, there are locations where they will not be exposed to oxygen, and therefore they will hardly corrode. We catch fish on site and drop cages of mussels to see whether they develop cancer. What should you do if you find a mm shell among the cod? And what action do you take if you find a lump of mustard gas among the herring? Mustard gas does not escape in gaseous form, but turns into a sticky mass that can drift around in the sea for years. Twenty-four serious accidents have occurred in Poland, the last one in , when fishermen hauled up an enormous lump of mustard gas in their net. However, the greatest risk is mechanical damage. For that reason, the authorities nearly everywhere decided not to recover the ammunition. Construction activities can have disastrous results if a large number of shells are damaged at the same time. This danger was reported extensively in the press thanks to Northstream, the gas pipeline running from Russia to Germany that crosses the Baltic. According to Beldowski, the gas pipeline is only one example: Therefore procedures must be rapidly established for excavating, constructing and drilling in risk zones. In addition, there are dumping grounds for conventional weapons that are known to contain heavy metals and other hazardous substances, 64 of which are off the French coast. After World War II, more than 1. In the Skagerrak between Denmark and Norway, the Allies sunk at least 45 ships carrying chemical weaponry. There are known to be two major toxic waste dumps in the Baltic: In the Mediterranean, the largest concentration can be found near the Italian city of Bari. Since World War II, accidents were caused here by chemical waste, in particular mustard gas. Tonnes of poisonous gas shells in Belgian waters One of the largest chemical weapon dumps in the North Sea is situated off the Belgian coast, not very far from the Dutch border. The battlefields in Belgium were cleared after World War I. People were regularly killed during attempts to transport and store the weapons; therefore, at the end of , the government in Brussels decided to dump them in the sea. Every day for six months, a shipload of ammunition disappeared into the sea off the coast of Knokke Heist. They probably wanted to get rid of their cargo as quickly as possible, as transporting it was also very dangerous", according to Tine Missiaen from the Renard Centre of Marine Geology in Gent. The result is that the Paardenmarkt, a sandbank near the coast, is monitored annually. It is the final resting-place of at least 35, tonnes of ammunition, approximately a third of which are shells containing poisonous gas. Most have disappeared under a thick layer of sediment. In , some of them were recovered from the water. They proved to be in remarkably good condition, thanks to the low-oxygen environment. At the time, serious corrosion still had to start. Translated from the Dutch by Stuart Buck Factual or translation error?

Chapter 7 : Waste Colonization and Plastic Pollution | www.nxgvision.com

Incineration of plastic waste in an open field is a major source of air pollution. Most of the times, the Municipal Solid Waste containing about 12% of plastics is burnt, releasing toxic gases like Dioxins, Furans, Mercury and Polychlorinated Biphenyls into the atmosphere.

Technology developed rapidly, science became advanced and the manufacturing age came into view. With all of these came one more effect, industrial pollution. Earlier, industries were small factories that produced smoke as the main pollutant. However, since the number of factories were limited and worked only a certain number of hours a day, the levels of pollution did not grow significantly. But when these factories became full scale industries and manufacturing units, the issue of industrial pollution started to take on more importance. Any form of pollution that can trace its immediate source to industrial practices is known as industrial pollution. Most of the pollution on the planet can be traced back to industries of some kind. In fact, the issue of industrial pollution has taken on grave importance for agencies trying to fight against environmental degradation. Countries facing sudden and rapid growth of such industries are finding it to be a serious problem which has to be brought under control immediately. Industrial pollution takes on many faces. It contaminates many sources of drinking water, releases unwanted toxins into the air and reduces the quality of soil all over the world. Major environmental disasters have been caused due to industrial mishaps, which have yet to be brought under control. Below are few of the causes of industrial pollution that have resulted in environment degradation. Causes of Industrial Pollution 1. Lack of Policies to Control Pollution: Lack of effective policies and poor enforcement drive allowed many industries to bypass laws made by pollution control board which resulted in mass scale pollution that affected lives of many people. In most industrial townships, unplanned growth took place wherein those companies flouted rules and norms and polluted the environment with both air and water pollution. Use of Outdated Technologies: Most industries still rely on old technologies to produce products that generate large amount of waste. To avoid high cost and expenditure, many companies still make use of traditional technologies to produce high end products. Water pollution and soil pollution are often caused directly due to inefficiency in disposal of waste. Long term exposure to polluted air and water causes chronic health problems, making the issue of industrial pollution into a severe one. It also lowers the air quality in surrounding areas which causes many respiratory disorders. Industries do require large amount of raw material to make them into finished products. This requires extraction of minerals from beneath the earth. The extracted minerals can cause soil pollution when spilled on the earth. Leaks from vessels can cause oil spills that may prove harmful for marine life. Effects of Industrial Pollution 1. The effects of industrial pollution are far reaching and liable to affect the eco-system for many years to come. Most industries require large amounts of water for their work. When involved in a series of processes, the water comes into contact with heavy metals, harmful chemicals, radioactive waste and even organic sludge. These are either dumped into open oceans or rivers. As a result, many of our water sources have high amount of industrial waste in them which seriously impacts the health of our eco-system. The same water is then used by farmers for irrigation purpose which affects the quality of food that is produced. Water pollution has already rendered many ground water resources useless for humans and wildlife. It can at best be recycled for further usage in industries. Soil pollution is creating problems in agriculture and destroying local vegetation. It also causes chronic health issues to the people that come in contact with such soil on a daily basis. Air pollution has led to a steep increase in various illnesses and it continues to affect us on a daily basis. With so many small, mid and large scale industries coming up, air pollution has taken toll on the health of the people and the environment. By and large, the issue of industrial pollution shows us that it causes natural rhythms and patterns to fail, meaning that the wildlife is getting affected in a severe manner. Habitats are being lost, species are becoming extinct and it is harder for the environment to recover from each natural disaster. Major industrial accidents like oil spills , fires, leak of radioactive material and damage to property are harder to clean-up as they have a

higher impact in a shorter span of time. With the rise in industrial pollution, global warming has been increasing at a steady pace. Smoke and greenhouse gases are being released by industries into the air which causes increase in global warming. Melting of glaciers, extinction of polar beers, floods, tsunamis, hurricanes are few of the effects of global warming. The issue of industrial pollution concerns every nation on the planet. As a result, many steps have been taken to seek permanent solutions to the problem. Better technology is being developed for disposal of waste and recycling as much polluted water in the industries as possible. Organic methods are being used to clean the water and soil, such as using microbes that naturally uses heavy metals and waste as feed. Policies are being pushed into place to prevent further misuse of land. However, industrial pollution is still rampant and will take many years to be brought under control.

Chapter 8 : E-Waste by Stephen Farrell on Prezi

In the end, Russia, the United Kingdom, and the United States largely opted for what seemed the safest and cheapest method of disposal at the time: Dumping chemical weapons directly into the ocean.

Bleaching mechanical pulp is not a major cause for environmental concern since most of the organic material is retained in the pulp, and the chemicals used hydrogen peroxide and sodium dithionite produce benign byproducts water and, eventually, sodium sulfate , respectively. However, the bleaching of chemical pulps has the potential to cause significant environmental damage, primarily through the release of organic materials into waterways. Pulp mills are almost always located near large bodies of water because they require substantial quantities of water for their processes. An increased public awareness of environmental issues from the s and s, as evidenced by the formation of organizations like Greenpeace , influenced the pulping industry and governments to address the release of these materials into the environment. Dioxins are highly toxic, and health effects on humans include reproductive, developmental, immune and hormonal problems. They are known to be carcinogenic. Disposing of paper in landfill sites, and subsequent breakdown and production of methane a potent greenhouse gas also adds to the carbon footprint of paper products. This is another reason why paper recycling is beneficial for the environment. Kaolin is the most commonly used clay for coated papers. Mitigation[edit] Waste paper awaiting recycling in the Netherlands. Some of the environmental impacts of the pulp and paper industry have been addressed and there is movement towards sustainable practices. Using wood from plantation forests addresses concerns about loss of old growth forests. Sustainable forest management[edit] Cutting down trees to make forest products such as pulp and paper creates temporary or long-term environmental disturbances in forest habitats depending on how carefully the harvest is carried out. There might be impacts on plant and animal biodiversity, soil fertility and water quality. However, sustainable forest management practices are a way of using and caring for forests so as to maintain their environmental, social and economic values and benefits over time. In Canada, sustainable forest management is supported by a forest management planning process; a science-based approach to decision-making, assessment and planning as well as by regulations and policies. The forest certification systems that are currently the most used are: Peracetic acid , ozone [59] and hydrogen peroxide and oxygen are used in bleaching sequences in the pulp industry to produce totally chlorine free TCF paper. Paper recycling There are three categories of paper that can be used as feedstocks for making recycled paper: Pre-consumer waste is material that was discarded before it was ready for consumer use. Post-consumer waste is material discarded after consumer use such as old magazines, old telephone directories, and residential mixed paper. Recycling paper decreases the demand for virgin pulp and thus reduces the overall amount of air and water pollution associated with paper manufacture. Recycled pulp can be bleached with the same chemicals used to bleach virgin pulp, but hydrogen peroxide and sodium hydrosulfite are the most common bleaching agents. Recycled pulp, or paper made from it, is known as PCF process chlorine free if no chlorine-containing compounds were used in the recycling process. Virgin paper contains no recycled content and is made directly from the pulp of trees or cotton. Materials recovered after the initial paper manufacturing process are considered recycled paper. The collection and recycling industries have fixated on the scraps of paper that is thrown away by customers daily in order to increase the amount of recycled paper. This type of mill detaches the ink from the paper fibers, along with any other excess materials which are also removed from the remaining paper. In the deinking mill, after all of the unwanted coatings of paper are stripped, the refurbished paper is sent to the paper machine. The old scraps are now constructed into new paper at the paper machine. Many papers mills have recycled business papers by transforming the old business papers into beneficial letters and envelopes. The production process for recycled paper is more costly than the well-developed paper mills that create paper with the use of trees. This process in making recycled paper is also much more time-consuming. However, recycled paper has a multitude of benefits from an environmental

perspective. United States[edit] Air and water pollution[edit] EPA first issued national wastewater standards, known as effluent guidelines , for pulp and paper mills in , pursuant to the Clean Water Act. The agency established numeric limitations for several conventional pollutants. See United States regulation of point source water pollution. Some of the requirements and technologies were designed to reduce toxic air pollutants also reduced toxic wastewater pollutants and vice versa. The regulation also requires the industry to implement best management practices , such as process control monitoring. Standards have been set for six principal pollutants: The following three listed Federal regulations are related to emissions to water: Pulp and Paper Effluent Regulations: Mills are also required to conduct environmental effects monitoring to determine the impact of their effluents on receiving waters and investigate the causes of, and solutions for, environmental effects associated with mill effluent. At the federal level, Environment and Climate Change Canada ECCC has a legislated, publicly accessible inventory of pollutant releases to air, water and land, as well as disposals and recycling, namely the National Pollutant Release Inventory, which companies are required to report each year. Operators of facilities that meet the reporting criteria are required to report facility greenhouse gas GHG emissions to ECCC each year. These Guidelines for the environment, health and safety list out the specific rules for the paper mill industries that explains what they need to follow in order to limit the pollution that is consequently distributed and by the mills. Mechanical pulp mills[edit] Main articles: Pulp mill and Bleaching mechanical pulps Wood pulp produced primarily by grinding wood is known as "mechanical pulp" and is used mainly for newsprint. These mechanical processes use fewer chemicals than either kraft or sulfite mills. The primary source of pollution from these mills is organic material such as resin acids released from the wood when it is processed. Mechanical wood pulp is " brightened ," as opposed to bleached, using less toxic chemicals than are needed for chemical pulps. Inks[edit] Three main issues with the environmental impact of printing inks is the use of volatile organic compounds , heavy metals and non-renewable oils. Standards for the amount of heavy metals in ink have been set by some regulatory bodies. Deinking recycled paper pulp results in a waste slurry which may go to landfill.

Chapter 9 : Message of the Film â€œOn Deadly Groundâ€• | Conspirazzi

Much toxic waste reaches the sea in the rivers which run into it. Every year, the British River Trent discharges tons of copper, tons of zinc, tons of nickel and , of chlorides into the North Sea.

Navy ship prepare for scheduled deployment in the Pacific Ocean in Read more stories like this at hakaimagazine. The shells, each emblazoned with a bright yellow cross, made a strange sound as their contents partly vaporized and showered an oily liquid over the Allied trenches. The fluid smelled like mustard plants, and at first it seemed to have little effect. Within an hour or so, blinded soldiers had to be led off the field toward the casualty clearing stations. Lying in cots, the injured men groaned as blisters formed on their genitals and under their arms; some could barely breathe. The mysterious shells contained sulfur mustard, a liquid chemical-warfare agent commonlyâ€”and confusinglyâ€”known as mustard gas. The German attack at Ypres was the first to deploy sulfur mustard, but it was certainly not the last: Nearly 90, soldiers in all were killed in sulfur mustard attacks during the First World War. And although the Geneva Convention banned chemical weapons in , armies continued manufacturing sulfur mustard and other similar armaments throughout the Second World War. Scientists did not know how to destroy the massive arsenals of chemical weapons. In the end, Russia, the United Kingdom, and the United States largely opted for what seemed the safest and cheapest method of disposal at the time: Dumping chemical weapons directly into the ocean. Troops loaded entire ships with metric tons of chemical munitionsâ€”sometimes encased in bombs or artillery shells, sometimes poured into barrels or other containers. Then they shoved the containers overboard or scuttled the vessels at sea, leaving spotty or inaccurate records of the locations and amounts dumped. Today, scientists are looking for signs of environmental damage, as the bombs rust away on the seafloor and potentially leak their deadly payloads. Extensive bandages on wounded Canadian soldiers indicate they suffered mustard gas from German offensive. He has seen the dangers of this century-old weapon close up. I had hoped to visit Popiel in his Warsaw lab, but when I contacted him a day earlier by phone, he apologetically explained that it would take weeks to get the permissions necessary to visit his lab in a secure military complex. The chemist, wearing a rumpled gray blazer, is easy to spot among the officers milling around in starched, drab green dress uniforms. Leading me upstairs to an empty conference room, Popiel takes a seat and opens his laptop. As we chat, the soft-spoken researcher explains that he started working on Second World War sulfur mustard after a major incident nearly 20 years ago. In January , a metric-ton fishing vessel named WLA was trawling off the Polish coast, when the crew found an odd object in their nets. It was a five- to seven-kilogram chunk of what looked like yellowish clay. The crew pulled it out, handled it, and set it aside as they processed their catch. When they returned to port, they tossed it in a dockside trash can. The next day, crew members began experiencing agonizing symptoms. All sustained serious burns and four men were eventually hospitalized with red, burning skin and blisters. The doctors alerted the authorities, and investigators took samples from the contaminated boat to identify the substance and then traced the lump to the city dump. They shut down the area until military experts could chemically neutralize the objectâ€”a chunk of Second World War sulfur mustard, frozen solid by the low temperatures on the seafloor and preserved by the below-zero winter temperatures onshore. Symptoms can take hours or, in rare instances, days to appear, so victims may be contaminated and not even realize they have been affected; the full extent of the chemical burn might not be clear for 24 hours or more. The gas burned part of his index finger, and it took two months to healâ€”even with state-of-the-art medical care. Popiel explains that the more he read about sulfur mustard after the WLA incident, the more he began to question why it had survived so long on the ocean floor. At room temperature in the lab, sulfur mustard is a thick, syrupy liquid. But under controlled lab conditions, pure sulfur mustard breaks down into slightly less toxic compounds like hydrochloric acid and thiodiglycol. Bomb makers reported that sulfur mustard evaporated from the soil within a day or two during warm summer conditions. But it seemed to remain strangely stable underwater, even after the metal casing of the bombs

corroded. To gather clues, Popiel and a small group of colleagues began testing the WLA sample to identify as many of its chemical constituents as they could. The findings were very revealing. Military scientists had weaponized some stocks of sulfur mustard by adding arsenic oil and other chemicals. The additives made it stickier, more stable, and less likely to freeze on the battlefield. All this led to something that no one had predicted. On the seafloor, sulfur mustard coagulated into lumps and was shielded by a waterproof layer of chemical byproducts. Such preservation in the deep sea had one possible upside: The coating could keep weaponized sulfur mustard stable, preventing it from contaminating the environment all at once. After , the U. But not all governments followed suit: The Soviet military, for example, unloaded an estimated 15, tonnes of chemical weapons in the Baltic Sea, where the deepest spot is just meters down and the seafloor is less than meters deep in most placesâ€"a recipe for disaster. Nearly a century has passed since the first use of sulfur mustard as a chemical weapon in the First World War, but these munitions remain a threat. Click on the map icons to view details about the sites; click on the slider icon on the top left to organize the content differently. On the day I arrive in the Polish resort town of Sopot, I take a short stroll along the seaside. Venders hawk jewelry made from amber that has washed ashore on local beaches. From his cramped office on the second floor of this research center, Beldowski coordinates a team of several dozen scientists from around the Baltic and beyond, all working to figure out what tens of thousands of metric tons of chemical weapons might mean for the seaâ€"and the people who depend on it. On the other are advocates concerned that tens of thousands of uncharted bombs are on the verge of rusting out simultaneously. In shades of orange and black, the high-resolution image shows a two-square-kilometer patch of the Bornholm Deep, kilometers from Sopot. Scattered across the image are nine anomalies that Beldowski identifies as individual bombs. Running his cursor over the image, Beldowski points out long, parallel scratches on the seafloor. Once the researchers locate either bombs or scuttled ships with sonar, they maneuver a remotely operated submersible fitted with a camera and sampling gear to within 50 centimeters of the decaying bombs to collect seawater and sediment. Beldowski calls up a short video on his computer, taken from the remotely operated vehicle a few weeks earlier. It shows a ghostly black-and-white image of a wrecked tanker, resting about meters below the surface. Records suggested it was filled with conventional weapons when it was scuttled, but Beldowski says sediment samples taken from the ocean floor near the ship yielded traces of chemical agents. One of these machines is the size of a small refrigerator. It can pinpoint the presence of chemicals in parts per trillion. Earlier research projects on Baltic water quality looked for traces of laboratory-grade sulfur mustard as well as one of the degradation products, thiodiglycol, and found next to nothing. The team found sulfur mustard byproducts in the seafloor sediment and often in the water around dumped bombs and containers. In some samples, the degradation products came from other types of dumped chemical weapons, like nerve gas and lewisite. This side-scan sonar image of the Baltic seafloor reveals what could be a scuttled ship full of chemical weapons, and trawl marks from fishing vessels crisscrossing the seafloor nearby. Courtesy of Polish Academy of Sciences, Institute of Oceanography Learning to detect these toxic substances is just part of the problem: Assessing the threat these chemicals pose to marine ecosystems and to humans is a more troubling issue. Although researchers have long gathered data on the dangers of toxins such as arsenic, the perils posed by weaponized sulfur mustard and its degradation products are unknown. Sanderson thinks it would be irresponsible to hit the panic button until more is known about these munitions on the seafloor and their effects. Cod is a commercially important species in the Baltic, so researchers from around the region have detailed records on these stocks and their health going back more than 30 years. And since cod are deep divers, they are more likely than many other Baltic fish to come in contact with sediment at the bottom of the seaâ€"and with chemical munitions. At the beginning of these studies, the cod caught from a major chemical weapons dump site seemed to have more parasites and diseases and were in poorer condition than those caught outside the dump areaâ€"a bad sign. The latest data, however, paints a different picture. But Lang says that situation could change, if leaks of toxic substances increase due to corroding munitions. A small number of studies conducted elsewhere also raise doubts about the polluting effects of submerged chemical weapons. Its

scientists have been investigating a site near Pearl Harbor, where 16, sulfur mustard bombs were dumped in Water samples taken by the HUMMA team confirmed the presence of sulfur mustard byproducts at the site, but time-lapse video shows that many marine species now use the bombs as an artificial reef. Sea stars and other organisms have shifted onto the piles of munitions, seemingly unaffected by the leaking chemicals. What is certain, however, is that the chemical weapons lying on the seafloor pose a serious threat to humans who come in direct contact with them. And as the world focuses more on the oceans as a source of energy and food, the danger presented by underwater munitions to unsuspecting workers and fishing crews is growing. Indeed, some major industrial projects in the Baltic, such as the Nord Stream gas pipeline from Germany to Russia, are now planning their routes in order to avoid disturbing chemical weapon dumps. And trawler activity on the ocean floor continues to uncover chemical munitions. In alone, Danish authorities have responded to four contaminated boats. Yet there are some options for cleaning up the mess. Terrance Long, at the IDUM, says encasing the corroding munitions in situ in concrete is one possible option. But it would be expensive and time-consuming. As I pack away my notebook and get ready to head back to the train station in Sopot, Beldowski still looks worried. He thinks that scientists need to remain vigilant and gather more data on what is happening in the seas around those dump sites.