

Chapter 1 : Documents - Oil Contamination Health Effects

Tahir Husain and Mohamed Bakr Amin. About the book. The chapter provides a compiled report of the oil wells on fire (as compiled by the Kuwait Oil Company,

Saddam was a leading member of the operation. The majority of its members were either educated professionals or students, and Saddam fit the bill. However, "no evidence has ever been produced to implicate Nasser directly in the plot. During the ambush it is claimed that Saddam began shooting prematurely, which disorganised the whole operation. The assassins believed they had killed him and quickly retreated to their headquarters, but Qasim survived. The man and the myth merge in this episode. His biography" and Iraqi television, which stages the story ad nasueam" tells of his familiarity with guns from the age of ten; his fearlessness and loyalty to the party during the operation; his bravery in saving his comrades by commandeering a car at gunpoint; the bullet that was gouged out of his flesh under his direction in hiding; the iron discipline that led him to draw a gun on weaker comrades who would have dropped off a seriously wounded member of the hit team at a hospital; the calculating shrewdness that helped him save himself minutes before the police broke in leaving his wounded comrades behind; and finally the long trek of a wounded man from house to house, city to town, across the desert to refuge in Syria. There Saddam was given full-membership in the party by Michel Aflaq. At the show trial , six of the defendants were given death sentences ; for unknown reasons the sentences were not carried out. Saddam was arrested in October and served approximately two years in prison before escaping in Saddam, who would prove to be a skilled organiser, revitalised the party. Al-Bakr was the older and more prestigious of the two, but by Saddam clearly had become the moving force behind the party. Long before Saddam, Iraq had been split along social, ethnic, religious, and economic fault lines: Ever concerned with broadening his base of support among the diverse elements of Iraqi society and mobilizing mass support, he closely followed the administration of state welfare and development programs. A year later, world oil prices rose dramatically as a result of the energy crisis , and skyrocketing revenues enabled Saddam to expand his agenda. Saddam established and controlled the "National Campaign for the Eradication of Illiteracy" and the campaign for "Compulsory Free Education in Iraq," and largely under his auspices, the government established universal free schooling up to the highest education levels; hundreds of thousands learned to read in the years following the initiation of the program. The government also supported families of soldiers, granted free hospitalization to everyone, and gave subsidies to farmers. Saddam implemented a national infrastructure campaign that made great progress in building roads, promoting mining, and developing other industries. Electricity was brought to nearly every city in Iraq, and many outlying areas. This number would decrease quickly during the s as global oil prices helped revenues to rise from less than a half billion dollars to tens of billions of dollars and the country invested into industrial expansion. The oil revenue benefited Saddam politically. It helped, of course, that his mukhabarat secret police put dozens of Arab news editors, writers and artists on the payroll. According to historian Charles R. Tripp , the treaty upset "the U. It appeared that any enemy of the Baghdad regime was a potential ally of the United States. After nationalizing foreign oil interests, Saddam supervised the modernization of the countryside, mechanizing agriculture on a large scale, and distributing land to peasant farmers. The state-owned banks were put under his thumb. Lending was based on cronyism. As the ailing, elderly al-Bakr became unable to execute his duties, Saddam took on an increasingly prominent role as the face of the government both internally and externally. He was the de facto leader of Iraq some years before he formally came to power in Relationships with fellow party members were carefully cultivated, and Saddam soon accumulated a powerful circle of support within the party. Syrian President Hafez al-Assad would become deputy leader in a union, and this would drive Saddam to obscurity. Saddam acted to secure his grip on power. He forced the ailing al-Bakr to resign on 16 July , and formally assumed the presidency. These members were labelled "disloyal" and were removed from the room one by one and taken into custody. After the list was read, Saddam congratulated those still seated in the room for their past and future loyalty. The 68 people arrested at the meeting were subsequently tried together and found guilty of treason. Other

high-ranking members of the party formed the firing squad. Each box contained a dead child, eyes gouged out and ashen white, apparently drained of blood. The families were not given their children, were forced to accept a communal grave, and then had to pay dinars for the burial. To alleviate the threat of revolution, Saddam afforded certain benefits to the potentially hostile population. However, repressive measures were taken against its opponents. Human Rights Watch and Amnesty International issued regular reports of widespread imprisonment and torture. He had thousands of portraits, posters, statues and murals erected in his honor all over Iraq. His face could be seen on the sides of office buildings, schools, airports, and shops, as well as on Iraqi currency. This was seen in his variety of apparel: Sometimes he would also be portrayed as a devout Muslim, wearing full headdress and robe, praying toward Mecca. He also conducted two show elections , in and In the referendum , conducted on 15 October, he reportedly received Saddam Hussein and Hafez al-Assad of Syria at an Arab Summit in Baghdad in November Saddam developed a reputation for liking expensive goods, such as his diamond-coated Rolex wristwatch, and sent copies of them to his friends around the world. Kaunda sent back his own personal magician. In Saddam threatened to expose those who had taken largesse from him: We have now grasped the reality of the situation. If the trickery continues, we will be forced to unmask them, all of them, before the French public. Seized documents show how French officials and businessmen close to Chirac, including Charles Pasqua , his former interior minister, personally benefitted from the deals with Saddam. Iraq signed an aid pact with the Soviet Union in , and arms were sent along with several thousand advisers. However, the crackdown on Iraqi Communists and a shift of trade toward the West strained Iraqi relations with the Soviet Union; Iraq then took on a more Western orientation until the Gulf War in He made a state visit to France in , cementing close ties with some French business and ruling political circles. In Saddam negotiated an accord with Iran that contained Iraqi concessions on border disputes. In return, Iran agreed to stop supporting opposition Kurds in Iraq. The first Iraqi nuclear reactor was named by the French " Osirak ". Osirak was destroyed on 7 June [69] by an Israeli air strike Operation Opera. Nearly from its founding as a modern state in , Iraq has had to deal with Kurdish separatists in the northern part of the country. The result was brutal fighting between the government and Kurdish groups and even Iraqi bombing of Kurdish villages in Iran, which caused Iraqi relations with Iran to deteriorate. However, after Saddam had negotiated the treaty with Iran, the Shah withdrew support for the Kurds, who suffered a total defeat. Iranâ€™Iraq War This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.

Chapter 2 : Embridge Line 9 Pipeline Assignmant by Alice Yu on Prezi

On a much larger scale, real time monitoring of fire gases from the Kuwaiti oil fires in was conducted using atmospheric monitoring stations in place since

Hayat Certain cations are detrimental to human health when in high concentrations. A number of these have been found in cancer tissues. During the Persian Gulf War the levels of many of these metals were found to be much higher than normal. Contributing to a host of human health problems, these levels have also been associated with an increase of cancer incidence in the region. Different metals found in human tumors, both benign and malignant, were studied. Comprehensive data for over , Gulf War veterans deployed to the Persian Gulf and over , non-Gulf War veteran controls were collected. Cancer incidence ratios were calculated by the use of logistic regression. They evaluated specific cancer types among all cancers found in the veterans and compared them to the same specific cancer type among all cancers found in the control group. Lung cancer showed elevated levels in Gulf War veterans. All other cancer types show minimal evidence in support of the link to Gulf War deployment. The possible relationship between military deployment and the subsequent increase in cancer rates has been prominent since the Vietnam War. The objective of this study was to investigate whether any form of cancer was increased among veterans deployed to the Persian Gulf in the conflict. This study matched data from central cancer registries in the District of Columbia and New Jersey with the records for 1. Using a proportional incidence ratio, testicular cancer was found to be the only significantly increased malignancy among deployed Persian Gulf War veterans. The increase became apparent 2 to 3 years after the Persian Gulf War and peaked 4 to 5 years afterward. Our data and those of investigators studying Vietnam veterans suggest that testicular cancer may be related to military deployment. Pregnancy and Early Childhood [View] By: Noreen Maconochie, Pat Doyle, Claire Carson The aim of this study was to examine the theory that exposure to toxicants in the Gulf War led to increased levels of infertility among male veterans. A postal questionnaire was administered, out of which 42, responses were received. Reported infertility was higher among those deployed to the Gulf theatre. This compared to analysis strictly based on clinically confirmed diagnoses. This study shows evidence of an increased risk of infertility along with a longer time to conceive among those who served in the Gulf War. Through information gathered from a mailed out survey, there were reports of fertility disorders, miscarriages, and children with birth defects. The percentages were comparable to those of the civilian population. Patricia Doyle, Noreen Maconochie, and Margaret Ryan This review summarizes the body of scientific research done on the reproductive health of the servicemen of the Gulf War. Interpretation of these studies was complicated as many methodological constraints existed. According to the US General Accounting Office in , there were at least 21 different toxins present in the Gulf War with the potential for causing birth defects, infertility, stillbirths and miscarriages. It was concluded however that there is no clear evidence that a higher prevalence of birth defects is associated with the progeny of those who served in the Gulf theatre. A postal questionnaire was administered to over veterans from Inquiries were on that of difficulty achieving pregnancy and various pregnancy outcomes. Sato The objective of this study was to determine whether an association between Gulf War deployment and adverse pregnancy outcomes existed. A postal questionnaire was administered to both deployed and non-deployed Gulf War era veterans and responses were received from individuals. There has been concern over an alleged increase in birth defects in children born to Persian Gulf War veterans. An evaluation of medical records of over 75, newborns born in was conducted, including a control group. The percentage of birth defects compared to that in the civilian population. Lee, and Frances M. Aspects exclusive to the Gulf theater in may have contributed to the contraction of these diseases by veterans. Heller, and Peter S. Telephone interviews were conducted with veterans five years after their time in the Gulf to get information on their health, demographics, and exposures. Asthma and bronchitis were the main respiratory effects followed. Models were constructed with the help of satellite imagery to track the location and density of the smoke plume. A random sample of Australian veterans was given a questionnaire that asked about respiratory conditions, exposures, medications, tobacco use, demographic characteristics, and military service details. The

study revealed a higher prevalence of respiratory symptoms such as asthma and bronchitis in those exposed to the oil fires. General Health [View] By: The authors conducted the present study to determine whether specific findings could indicate an organic basis for this possible syndrome. They completed an extensive clinical and laboratory evaluation on Gulf War veterans with all 4 symptoms, using 3 comparison groups. A single clinically based neurological syndrome could not be identified. No deployment-related exposure appeared to explain the pattern of symptoms, but this evaluation suggested comorbidities and possibly multiple vaccines as important contributors. Many of the neurological symptoms reported by the studied veterans appear to have an organic basis, but comorbidities must be excluded before researchers can conclude that a definitive syndrome exists. Acetylcholinesterase inhibitors and Gulf War illnesses [View] By: Beatrice Alexandra Golomb Evidence exists that the multi-symptom illnesses of the Gulf War veterans is attributed to exposure to organophosphate OP and carbamate acetylcholinesterase inhibitors AChEis , including pyridostigmine bromide PB , pesticides, and nerve agents. This study examines this link. This report finds a plausible relationship between OP and carbamate AChEi exposure and Gulf War Illness and states that the connection may be relevant to future deployments as well as to those experiencing unexplained chronic multi-symptom illnesses. Gackstetter, and Gregory C. Gray Both the public and veterans have had concerns that exposures during the Persian Gulf War have caused illness. Included are tables of different health effects relating to demographics. Kang, and James D. Knoke This study reviewed hospitalization data of veterans after the Arabian Gulf war. The authors concluded that there have been an increased proportion of veterans hospitalized for fractures and bone and soft-tissue injuries along with various diseases of the respiratory including asthma and digestive systems. Further studies using different methods were recommended for more thorough analyses of Gulf War health effects. This paper seeks to address this. Over 15, soldiers from two different combat areas had medical data and hospitalization records investigated. Out of this group, had at least one hospitalization over the to period. As this is the first epidemiological investigation to date, there were severe data limitations and so should be interpreted with caution. Lewis Thompson The smoke plume from the Kuwaiti oil well fires reduced solar radiation percent in the region around Jubail. Temperature and shade of the region changed along with the level of comfort of those residing in the area. This paper dwells on the human response to solar radiation load. To identify a syndrome unique to Gulf War veterans, the authors applied an exploratory factor analysis to the symptom correlation matrix of 10, Gulf War and 8, non-Gulf War veteran respondents. A separate factor analysis was performed for Gulf War and non-Gulf War veterans, and the resulting 6 factors were compared between the 2 groups. Five of the factors were very similar in the 2 groups; however, 1 of the factors in the Gulf War group, but not the non-Gulf War group, contained a cluster of symptoms consistent with neurological impairment. This finding suggests a possible syndrome related to Gulf War deployment, which requires objective supporting clinical evidence. Implications for Etiology and Pathogenesis [View] By: This study used factor analysis to identify possible subgroups of symptoms of fatiguing syndrome FS. Subjects were classified with FS according to the modified Centers for Disease Control and Prevention criteria with the exception that the chronicity of excessive fatigue could not be documented. The cases consisted of Gulf War veterans who met the criteria, whereas the control groups were composed of Gulf War and non-Gulf War veterans who did not meet the criteria and had none of the medical conditions that were exclusionary in the FS group. Factor analyses were performed separately in each group. Factor analysis revealed 6 subgroups: Although the factors were similar for both groups, they were more differentiated in the FS group than in the control group as evidenced by interfactor correlations. Various veterans, scientists, and clinicians spoke at this hearing to provide information on what health effects were present, what medical treatment has been done, and recommendations for future treatment and prevention. Scientific Findings and Recommendations [View] By: Recommendations to guide future research on the topic are also provided. This hearing was an attempt to identify the research that has been done on the illnesses of Gulf War veterans. To better assess these illnesses, veterans of Vietnam exposed to harmful toxins were examined. Scott A review of clinical and epidemiological studies of morbidity among Gulf War veterans was conducted focusing on healthcare registries, hospitalizations, and outpatient visits. To understand the effects that the research to date has had, the authors provide an assessment. Research and studies have reduced speculation on the multi-symptoms of the Gulf War

veterans. A greater access is now available for veterans to healthcare. Recommendations have been made for further research. In March , U. The long-term health effects associated with possible exposure to these chemical warfare agents are unknown. This study was undertaken to investigate whether possible exposure was associated with morbidity among Army Gulf War veterans using morbidity data for 5, Army veterans who were deployed to the Gulf region. We found little association between potential exposure and health, after adjustment for demographic variables, and conclude that potential exposure to sarin or cyclosarin at Khamisiyah does not seem to have adversely affected self-perceived health status, as evidenced by a wide range of health measures. The purpose of this study was to examine the association of notification of potential exposure to chemical warfare agents in the Gulf War with subsequent self-reported morbidity. One-half of the subjects had been notified of potential exposure to chemical warfare agents and one-half had not. Comparing notified and non-notified subjects, there were no statistically significant differences with respect to bed days, activity limitations, clinic visits, or hospital visits. Among 71 self-reported medical conditions and symptoms, there were 5 statistically significant differences, 4 of which were for lower rates of illness among notified subjects. Our findings contradict the prevailing notion that perceived exposure to chemical warfare agents should be considered an important cause of morbidity among Gulf War veterans. Health Effects of the Kuwait Oil Fires: Questions inquired about symptoms before, during, and after their stay in the Gulf theater.

Airborne measurements in the smoke from the Kuwait oil fires in May and June indicate that the combined oil and gas emissions were equivalent to the consumption of about million barrels of oil per day.

Abstract The environment always seems to be the victim of war, and the scenario was no different in the case of the Persian Gulf Crisis from to early The ecological and economic impact of the Gulf War began on August 2, when Iraq invaded Kuwait and the full impact probably will not be realized in the near future. What can be determined, is that Kuwait suffered severe losses not only to its oil industry, but also to its ecological system. The scale of damage was enormous, ranging from destruction caused by oil fires and oil spills, to economic decline for the Kuwaiti oil industry. This paper assesses the environmental and economic consequences of the Gulf War on Kuwait. Iraq had incurred a huge debt burden from ambitious military spending and the losses obtained during the Iraq-Iran War in the s. Although most OPEC countries were not eager to abide by a an oil quota system, Iraq desired very strict regulation on the quota system in order to stabilize oil prices and to reduce uncertainties in the revenue on which Iraq was very dependent. Iraq wished to maintain high unit oil prices to generate more revenue, and pay off their former debts. The Iraqi regime demanded immediate increases in oil prices so that Iraq could pay off its debt to Kuwait and the other Arab states from which it borrowed money to finance the Iraq-Iran War. Still, the situation worsened, and in July of , the Iraqi regime voiced their belief that excess oil production by Kuwait was intentional Husain Tensions heightened in the Arab region, and although Saudi Arabia attempted to act as a mediator between the two states, this effort failed. Iraq invaded Kuwait on August 2 of that year, and the devastation to the environment began immediately thereafter. **Environmental Impact** The environmental impacts of the Gulf War Crisis were felt immediately at the onset of the Iraqi invasion. Humans began suffering on day one of the invasion and the atrocities towards humans continued with the duration of the war. Thousands were either killed, wounded, raped, or taken prisoner before the war terminated Sadiq and McCain The other casualty of this war was the planet. The land was abused greatly from transportation of heavy artillery and movement of troops across the desert. Additionally, the build- up of solid wastes polluted the ground and a case may be made for future groundwater contamination. Outside of the desert soil, plant life was also destroyed in great numbers. Desert vegetation was uprooted, trampled, and destroyed over the course the war Indeed, the atmosphere was damaged to some extent from the fire and smoke produced from explosives, oil fires, and from both known and unknown chemicals. At the same time that Iraqi troops were building-up their force, Saddam was threatening that "if he had to be evicted from Kuwait by force, then Kuwait would be burned" Sadiq and McCain, p. As promised, upon evacuation, Iraqi troops set fire to over six-hundred oil wells in several Kuwait oil fields. The effect that the oil fires had on the Gulf environment were enormous. Today, it was revealed that to some extent, everyone was wrong Sagan and others arrived at their conclusions based on a nuclear winter fall-out scenario in which smoke would remain entrapped in the upper atmosphere, and cause temperatures to drop radically on earth below. However, from the start of the Gulf War, it was widely believed that the amount of smoke produced from the Kuwait oil fires would be far less than that created by a full-scale nuclear war; subsequently, the comparison was irrelevant Even the fear that the smoke would affect the monsoon was discounted. In actuality, the smoke caused local temperatures in Kuwait to cool Zimmer A more serious problem was that acid rain forms from burning oil and also people with respiratory problems or other diseases could be dangerously impacted by smoke- clogged air. For instance, public health experts attending a conference at Harvard projected that the air pollution would kill approximately 1, Kuwait is over the following year An estimated 11 million barrels of oil were intentionally released to the Arabian Gulf from January to May Sadiq and McCain This is more than twenty times larger than the Exxon Valdez spill and twice as large as the previous world record Zimmer More than miles of Kuwait and Saudi Arabian beaches were oiled and marine wildlife was devastated. Oiled birds revealed on CNN by the media painted an accurate picture of the occurrences in the Gulf. In fact, birds were the hardest hit of any group of organisms and thousands lost their lives Sadiq and McCain Along with the migratory birds, marine turtles were also in danger. Both the

hawksbill and green turtles utilize the offshore islands of the Gulf as nesting sites. Another viewpoint indicated that at least 80 ships were sunk during the Gulf War, many of which carried oil and munitions. These ships, along with those submerged during the Iraq-Iran War, will remain a chronic source of contamination of the Arabian Gulf for many years. Despite all the aforementioned environmental hazards caused by the Gulf War, the acute effects of the war do not appear as severe as scientists had initially predicted. However, many are still skeptical about the chronic effects of the crisis. In some cases, such as with the oil spills, the natural cleaning process may be the primary method utilized for repair. This includes waves and abrasion as factors helping the process along. Moreover, it has been concluded that the Gulf will recover from the oil spills, but it will be different after the recovery. Moreover, it may take decades for specific ecosystems to recover. Sadiq and McCain. Essentially, the impact of the Gulf War on these various segments of the environment will be realized for a long time. Economic Impact It may be inferred that economic frustration was at the root of the Gulf Conflict in the first place. The only way for Iraq to obtain revenue was through oil exports, but other OPEC nations would not allow increases in quotas. Enough time has elapsed to study the economic impact of the Gulf War on the region. Most of the economic costs were incurred by Iraq. The time and effort needed to repair the damage and build replacement facilities will take years to accomplish. This will also be difficult for Iraq because of the pending arms embargo on the state. Surprisingly, the economic position may be easier for Kuwait, although the impact is still hard-felt. The most expansive damage was that inflicted upon the oil installations. Also, Saudi Arabia incurred costs from the conflict on its border town of Khafji. After the United States and the United Nations entered the picture; however, oil dealers were reassured not to be concerned with a threat by a leader who challenged Western interests. Namely, oil exports were on the rise once again. Still, the economic costs incurred by Kuwait will have to be managed for a long time. Moreover, there remains an on-going economic imbalance in the Gulf region which is characterized by the very envy and greed that contributed to the onset of the Gulf War. Conclusion The environmental and economic hardships imposed on Kuwait, and to the Gulf Region in general, both during and after the Gulf War will be endured for many years to come. The destruction caused by the oil fires and the oil spills were devastating, and at times were fatal. Not only did humans suffer the consequences of the conflict, but the ecosystem and the atmosphere were also innocent victims. Additionally, the economic impact that the Gulf War had on the region was also experienced by numerous parties involved. Even today, some Arab nations, such as Iraq, are still repaying debt, while others such as Kuwait, are rebuilding both the economy and the ecosystem in the aftermath of the conflict.

Chapter 4 : Tahir Husain (Author of Kuwaiti Oil Fires)

One of the consequences of the Kuwait oil fires was the formation of oil lakes containing mostly crude oil, partially combusted oil, and soot.

Chapter 5 : ICE Cases: Gulf War Aftermath

Just before the end of the Gulf War, more than wells in Kuwaiti oil fields were set on fire. Several international companies and scientific organisations were involved in extinguishing the fires and in assessing the impact of this major environmental incursion.

Chapter 6 : Saddam Hussein - Wikipedia

Tahir Husain is the author of Kuwaiti Oil Fires (avg rating, 0 ratings, 0 reviews, published).

Chapter 7 : Gulf War and Oil Well Fires by Jenner Bae on Prezi

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J.B. Stunder, An evaluation of air pollutant exposures due to the Kuwait oil fires using a Lagrangian model, Atmospheric Environment, , 28, 13, CrossRef.