



War, Sanctions, and Humanitarian Assistance: The Case of Iraq 1990-1993

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The social and economic infrastructures of Iraq, including the capacity to provide health services, were severely damaged by the 1991 Gulf War, by international sanctions imposed on Iraq by the international community before, during, and after the war, and by internal political violence following the war. Field investigations conducted in August 1991 and November 1993 documented the impact of these three factors on child mortality and nutrition, health care services, environmental and agricultural damage, income and economic status, and other conditions of Iraqi life. The studies confirm an increase in infectious diseases due to inadequate water supplies and deteriorating water quality; malnutrition caused by a collapse in crop production combined with an inability to import sufficient food; a sharp increase in infant and child mortality immediately following the war, and severe impacts on the social and psychological well being of women and children. Specific sanctions against Iraq have created a tension between humanitarian objectives and the political goals of the United Nations with regard to Iraqi compliance with UN resolutions. Sanctions against Iraq, therefore, have exacerbated a public health crisis brought on by wartime destruction. [M&GS 1994;1:147-155]

During and after the 1991 Gulf War, visions of "surgical strikes" and minimum collateral damage danced in the heads of Pentagon planners, military strategists, and the news media. For the majority of the Iraqi population, however, the war left behind a crippled infrastructure unable to meet the needs of a modern society. The discussion that follows analyzes the effects of the war and subsequent UN sanctions on the civilian society of Iraq, based upon two point-in-time investigations, one

conducted in August 1991, the other in November 1993. Although both investigations relied on sample surveys, reviews of available fragmentary data, and anecdotal assessments, the findings of the two quite different missions are internally consistent and have been validated, to the extent possible given the paucity of information in general, by data from other independent reports and surveys.

The War and the Imposition of Sanctions

The United Nations Security Council imposed economic sanctions designed to force an Iraqi withdrawal from Kuwait shortly after Iraq invaded its southern neighbor on

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August 2, 1990. Operation Desert Storm -- the war to restore the Kuwaiti government -- began on January 16, 1991 and lasted 43 days. Allied forces attacked Iraqi electrical power plants, fuel storage units, communications systems, and other strategic targets.

Beginning in March 1991, as the Iraqi forces were compelled to withdraw from Kuwait, internal conflicts within Iraq began to erupt in the south and north. These conflicts were triggered by perceived Allied support of the repressed populations of Kurds and Shi'a, and kindled by the sight of a retreating Iraqi army. In suppressing these revolts, the government used force against its own civilians, destroying homes, mosques, and city centers, as thousands fled towards the borders of Turkey and Iran for refuge.

In April 1991, the United Nations humanitarian machinery went into motion, after the world witnessed a mass exodus of Kurds fleeing from the advancing Iraqi forces. Multilateral sanctions imposed against Iraq after the invasion of Kuwait, however, made providing humanitarian assistance difficult. The war and the subsequent internal conflict had crippled Iraq's economy and devastated its infrastructure. The sanctions policy compounded the problems of restoring the electrical system, water and sanitation plants, and the health infrastructure to functional levels, let alone to pre-war levels. The oil-dependent Iraqi economy, left without purchasing power as a consequence of the oil embargo imposed by the sanctions regime, came to depend heavily on salvageable spare parts or UN assistance.

Ongoing UN-sponsored sanctions against Iraq began to highlight a tension within the UN organizational structure between the objectives of the Security Council and the humanitarian goals of UN agencies. Iraq has complied only in limited ways with the Security Council's demands for the recognition of Kuwait's border, for the dismantling of weapons of mass destruction, and for a halt to the repression of Iraqi citizens in the northern and southern regions of the country, with the consequence that sanctions have remained in place for nearly four years. The resulting hardships have created a continuing need for UN humanitarian assistance, but the sanctions themselves have made providing that assistance extremely difficult.

Moreover, fear of Iraq's weapons development programs -- including its possession of chemical and biological weapons and the belief that it was engaged in nuclear weapons research before the war -- has ensured that the sanctions are enforced stringently, further obstructing the flow of humanitarian goods. An anecdote told by a UNICEF worker drives

the point home: first aid kits destined for Iraq could not be cleared for distribution until metal scissors were removed, because authorities suspected the metal could have been melted down and used for military purposes. Other goods, such as fertilizers and pesticides containing potassium compounds, have been similarly withheld.

In August 1991, six months after the war, an International Study Team (IST) visited Iraq in an effort to assess the impact of the war and the subsequent sanctions regime on the population. In November 1993 the Food and Agricultural Organization of the United Nations (FAO) sent a second mission to Iraq to conduct a follow-up study. The author participated in both missions. The findings of the IST were among the first to describe the civilian impact of the Gulf crisis, which had been minimized during the Gulf War. The results of the FAO study suggested that sanctions were beginning to tax the already limited resources of the Iraqi government, Iraqi households, and UN relief agencies.

The Impact of Sanctions on Iraqi Life

Since the 1960s the social and economic situation of Iraqis had been improving, in part due to increasing revenues from oil. The government had created subsidies for agriculture, food, social welfare programs, education, and health. In 1987, the infant mortality rate was estimated at 41 per 1,000 live births; 80% of the population had access to clean water; and most homes had electricity [1]. Although there was no national nutritional survey of children, several studies conducted in Baghdad indicated that Iraqi children were similar in weight and height to the WHO reference population [2,3].

The war knocked out the life support systems of a modernized society, including the electrical system, the water and sanitation process, the irrigation network, and hospitals and public health clinics. In essence, civilians of a highly urbanized country -- more than one-quarter of them residing in Baghdad -- were denied basic facilities. The end results of the destruction were contaminated drinking water, shortages of basic goods and medicines, marginally functional health centers and schools, a high incidence of infectious epidemics, and increases in infant and child mortality. Because of the on-going sanctions policy, the Iraqi government was unable to purchase spare parts, chlorine, or other items to restore services. Despite the levels of destruction caused by the war and by the internal conflict, however, Iraq had made some substantial progress in rebuilding its infrastructure by the time the IST arrived in August 1991.

The Field Investigations: August 1991 and November 1993

The research underlying the findings of the International Study Team was based on field work conducted in Iraq between August 23 and September 7, 1991. An international team of 87 researchers conducted a comprehensive study of the impact of the Gulf crisis on the health and welfare of Iraqi civilians. The study was organized by graduate students from the Harvard Law School and the Harvard School of Public Health, in collaboration with members of the Gulf Peace Team, as a follow-up to an earlier Harvard Study Team report ("Public Health in Iraq" April 1991) [4]. Funding was provided by UNICEF, the John D. and Catherine T. MacArthur Foundation, the John Merck Fund, and Oxfam-UK.

The study focused on eight areas: 1) child mortality and nutrition, 2) health care services, 3) income and economic status, 4) water and sewage systems, 5) electrical facilities, 6) environmental and agricultural damage, 7) child psychology, and 8) women's status. The report provided accurate baseline data on the conditions affecting the Iraqi civilians after war, civil unrest, and economic sanctions, and did not make political recommendations.

The UN Food and Agriculture Organization mission took place from November 5-17, 1993. The main objective of the FAO study was to assess the nutritional situation in Iraq. In addition, the team was asked to pay special attention to factors that could alert decision makers of an impending deterioration in household food security. The second objective was to evaluate the advancing impact of the sanctions. In order to save time, the four members of the mission divided into two teams to travel north and south. They visited health, agriculture, and food distribution facilities; interviewed concerned professionals; and carried out independent market surveys for an on-the-spot assessment of food availability and market prices. With the cooperation of the Iraq Nutrition Research Institute, the team conducted a small case study to assess household food security and nutritional status in Baghdad, among underprivileged households of Saddam City.

By August 1991 it was impossible to disentangle the effects of the war, internal conflict and sanctions on the civilian population. By November 1993 the effects of sanctions could be observed not only amongst the Iraqi civilian population, but also throughout the Iraqi administration.

The Collapsed Electrical Network and Health Infrastructure

The engineers who accompanied the IST in 1991 noted that the electric power system in Iraq was systematically destroyed during the Allied bombing campaign. After the war, electric power output was reduced to less than 300 megawatts -- about 4% of pre-war capacity. The damage to electric power generation and distribution had an impact on all aspects of Iraqi life and infrastructure. Erratic power supply continued to limit the operation of hospitals and health centers, water and sewage treatment plants, irrigation networks, and industrial production. Sewage backed up on the street and drinking water became contaminated with disease-causing pathogens. The IST bacteriological survey, based on 158 randomly selected households (the sampling scheme used for the mortality survey), indicated that more than one-half of samples were grossly infected with fecal-coliform. By August 1991 electric power had been restored to almost 3500 megawatts -- 37% of pre-war capacity.

Although electricity had been restored to most households by 1993, there were daily power outages because of the deterioration of spare parts salvaged from other facilities. Despite a substantial investment by both the government and international agencies to repair the water and sanitation systems, the intermittent electrical supply has affected their functioning, leading to several outbreaks of diarrheal diseases especially during summer months. The water and sanitation problem remains serious for southern governorates of Najaf, Kerbala, Wasit, Diqar, and Basrah [5].

In addition to drinking water quality, an area of grave concern is water quantity. The water system in the city of Basrah, operating at 50% pre-war capacity, is unable to meet the needs of the increasing population (after the war many people migrated from Kuwait). For example, in Basrah there were water stations (similar to gasoline stations) where families could only purchase water by the liter. The shortage in water has led to severe problems in sanitation at schools that now have two to three shifts each day, facilitating the transmission of water-borne diseases amongst primary age school children. Outbreaks of lice, typhoid, and cholera continue to be serious health problems [6].

The destruction of the electrical supply affected the operations of health facilities. In 1991 the IST found that, after the war, most major hospitals and health clinics were functioning at 40-50% of their original capacity and could not satisfy the increased demand for services. Blood supplies, vaccines, and

medicine spoiled from lack of refrigeration. Incubators for premature babies, surgical facilities, and other health services were rationed, depending on the availability of electricity. Health facilities lacked basic medical supplies such as anesthetics, syringes, vaccines, antibiotics, and other medicines. Infectious diseases often went untreated, and drugs for chronic diseases were unavailable. Local hospital staff reported that the rate of coronary attacks had increased substantially because patients were unable to obtain anti-angina medication. Insulin was not available for treating diabetes. The Ministry of Health, unable to purchase drugs to treat chronic diseases, anaesthesia to perform basic surgery, nitrous oxide for birthing facilities, or antibiotics for control of infection, had to rely on WHO and UNICEF shipments. Furthermore, hospitals were unable to maintain an adequate level of hygiene or to supply meals for patients and their caretakers, as was the usual practice.

Two years later, when the FAO team returned to Iraq, the situation of health services remained more or less the same. There continued to be a shortage in medical supplies. Most of the large hospitals were operating at 50% capacity. The FAO team observed several cases of kwashiorkor and marasmus complicated by gastroenteritis, pneumonia, and severe anemia. Several physicians reported that cases of malnutrition had not previously been seen in such numbers, with the exception of the summer of 1991. The emergence of these cases was a strong signal of deterioration in household food security and in the overall health situation. Micronutrient deficiencies, such as vitamin A, were reported by both UNICEF and the Ministry of Health. UNICEF hosted a workshop on dietary quality and breastfeeding. On a positive note, immunization rates were well above 80%, better than pre-war levels in certain areas [7].

Child Mortality and Nutritional Status

After the war, little objective information was available regarding mortality and the nutritional status of children. Several fact-finding missions in April 1991 had reported epidemics of cholera, typhoid, and gastroenteritis, and found that mortality rates had increased two to three times among children admitted to hospitals in Baghdad, Basrah, and Kurdish refugee camps [4,8,9]. Since previous estimates of the effect of the war on health were based on selected groups that did not represent the entire population, the IST survey was based on a nationwide sample of 271 clusters of 25-30 households each,

chosen as a representative sample of the Iraqi population. Women between 15 and 19 years of age were interviewed and the dates of birth and death of all children born on or after January 1, 1985 were recorded by an international team of public health professionals independent of Iraqi authorities.

The study population included 16,076 children, 768 of whom had died during the retrospective period surveyed. Infant and child mortality increased more than threefold between January and August 1991, as compared with the average rates during the previous six years. The post-war mortality rate was 1.8 per 1,000 live births for neonates, 4.1 for infants (1-12 months), and 3.8 for children from 12 months to less than 60 months (Table 1). When these increases were extrapolated to the entire population of Iraq, the resulting mortality figure was approximately 46,900 excess deaths during the first eight months of 1991. No significant changes in the relative risk of dying were noted after adjusting for region of residence, maternal education, and maternal age. The risk of dying was greatest for northern and southern Iraq. Information on cause of death was available for 583 children (75.9%). The age adjusted mortality rate rose from 2.1 to 11.9 per 1,000 person years for diarrhea, and from 0.55 to 2.25 per 1,000 person-years for injuries.

In the same multistage cluster sample, the IST survey included a subsample of 2,676 children for anthropometric analysis. According to internationally accepted practice, children are classified as being malnourished if they fall below 2 standard deviations (-2 SD) from median reference values established by the U.S. National Center for Health Statistics. The percentage of children below minus 2 SD was 21.8% for stunting, 11.9% for underweight, and 3.4% for wasting, as determined by weight-for height comparisons. Table 2 presents the prevalence of anthropometric indicators of malnutrition by child age, maternal education, region, and residence. Because of the observed increase in mortality among children under the age of five, it is possible that the observed prevalence of wasting in August 1991 was an underestimate, resulting from a survivor bias.¹

No other surveys have followed the IST national mortality estimates, but child mortality is suspected to remain at 2-3 times the pre war level [7]. Although limited in sample size, there have been several nutritional sur-

1. This observation raises the issue of using cross-sectional surveys for assessing nutritional effects on children. Unless these surveys repeatedly measure the same household, the utility of such data in an on-going crisis situation is questionable.

Table 1. Mortality rates and relative mortality (RM) of death comparing periods before and after the beginning of the Gulf conflict (January 1, 1991).

Age group	Reference Period	1991 (Jan-Aug)	RM (95% C.I.)
0-1 month			
live births	14,067	2,004	
deaths	251	65	
mortality rate (per 1,000 live births)	17.8	32.4	1.8 (1.4, 2.4)
1-11 months			
person-months	135,772	20,365	
deaths	192	119	
mortality rate (per 1,000 person-years)	17.0	70.1	4.1 (3.3, 5.2)
12-59 months			
person-months	252,531	78,835	
deaths	56	62	
mortality rate (per 1,000 person-years)	2.7	10.1	3.8 (2.6, 5.4)

J Reference periods are 1/1/85 to 12/31/90 for 0-1 month and 1-11 months, and 1/1/88 to 12/31/90 for 12-59 months

veys that show deteriorating nutritional status [10]. The FAO 1993 team conducted a case-study based on eight of the 13 clusters in Saddam City canvassed during the 1991 IST survey. The team visited 120 households and measured a total of 194 children under the age of five. Despite the limitation of this case study,² the findings show a significant increase in both stunting and wasting compared to the IST results (Table 3). These results were compatible with the presence of kwashiorkor and marasmus observed in hos-

Table 2. Percentage of children (0-59 months) below -2 SD: stunted, underweight, wasted, by child age, maternal education, region, and residence (August, 1991).

Demographic characteristics	Percent stunted	Percent underweight	Percent wasted
Age (months)	(n=2,565)	(n=2,565)	(n=2,676)
All ages	21.8	11.9	3.4
0-2	0.8	2.4	2.4
3-5	3.7	3.7	3.7
6-11	11.6	10.7	3.4
12-17	28.1	18.4	6.1
18-23	38.5	17.1	3.4
24-35	21.7	13.5	2.3
36-47	25.3	11.9	3.3
48-59	22.7	9.2	3.2
Maternal education	(n=2,543)	(n=2,543)	(n=2,653)
Illiterate	28.2	15.9	4.2
Primary	21.0	11.0	3.2
Secondary/post-secondary	11.5	6.0	2.1
Region	(n=2,514)	(n=2,514)	(n=2,610)
Baghdad	12.2	6.9	3.1
Central	15.6	8.7	2.3
South	25.1	11.1	3.3
North	29.5	19.1	4.5
Residence	(n=2,565)	(n=2,565)	(n=2,676)
Urban	20.0	11.4	3.3
Rural	24.7	11.7	3.5
Displaced	37.3	33.3	6.1

pitals located in the neighborhood. They were also congruent with anecdotal reports from households concerning hardships resulting from the worsening economic situation.

Economic Deterioration

The destruction of the Iraqi economy has led to a considerable decline in imports, output, and wage employment. The reduction in formal employment opportunities, and the general impoverishment of the population, have led to a large-scale expansion of "informal" self employment (e.g. street-vending). Prices of all traded commodities have risen steadily. Money earnings, however, have remained more or less unchanged for the majority of the population since August 1990, according to IST economic comparisons, while the food price index rose 1,500 to 2,000 percent.

In November 1993, at the time of the FAO study, market food prices of basic commodities remained similar to those of August 1990. The quality of basic food was deteriorating, however, and fewer foods were available. Over the previous two years, the number of destitute people (e.g., the unemployed, widows, orphans) had increased, and for those with jobs, wages had remained unchanged. Most families had sold their assets, and the households visited by the FAO team were often empty of basic furnishings.

The quality of the government ration was considerably poorer, as reported by several consumers and team visits to flour mills. In fact, the overall quality of basic foods, such as cereals and meats, was poorer than in August 1991. Luxury items, such as foreign cigarettes, alcohol, and soda -- which were available in markets in Baghdad in August 1991 -- had disappeared from the market. Cans of foreign powdered milk were considerably more expensive and of poorer quality, as indicated by lower fat content. Fresh fruit and vegetables were available in the market, but prices were high.

The households visited in Saddam City were notably poorer. Some contained only bedding. It was said that for the first time women, children, and the handicapped were seen begging in the streets of major cities and the government was taking no action against it. Civil servants and other high officials within the Iraqi government indicated that

2. The study had a number of limitations: the sample was not representative of Baghdad; new SECA bathroom scales were used to weigh children (SECA baby balances were used to weigh infants under 10 kg); and the enumerators included persons with varying degrees of experience, with little time to standardize their techniques.

hardships had worsened in the previous year -- only the Republican Guard and those close to Saddam Hussein continued to have special privileges.

A limited number of individuals had buffered the effects of ongoing sanctions by working as local consultants, drivers, or UN cooks, receiving part of their salary in American dollars. Although this strategy helped some households overcome the economic impact of sanctions, it also fueled inflation, making imported (usually smuggled) products very expensive for the average household measuring earnings in Iraqi dinar. In November 1993 \$1 was equivalent to 100 Iraqi dinar; in August 1991 the exchange rate was \$1 to 8 Iraqi dinar. Despite the government rations, meeting daily needs had become a struggle for the majority of population.

Iraq's food distribution system, which was put into place immediately after the sanctions were imposed, covers at best one-half of the nutritional needs of the population. The ration is of poor nutritional quality, lacking in animal proteins and micronutrients. Many households have sold their assets to complement food rations with market purchases. Foods needed to bridge the gap between ration and daily needs (e.g. fruits, vegetables, dairy products, legumes, and animal proteins), however, tend to be highly expensive.

Other Inadvertent Effects

Agricultural Output

The annual pre-crisis Iraqi harvest satisfied 30% of Iraq's domestic food needs. After the war, the IST study found agricultural production had declined by about 75-80% due in part to disruption of the electrical power system. In addition, the sanctions had prevented all but a tiny fraction of pesticides, fertilizers, seeds, and farm equipment from entering the country. The 1992/93 domestic food harvest, estimated at 3.235 million tons of cereals, had yet to reach 1990 level figures of production -- 3.451 million tons of cereals. Efforts were made by various UN agencies, in particular FAO, to boost production. But shortages of critical materials -- herbicides, pesticides, fertilizers, agricultural machinery, and seeds -- continued to hinder development of the agricultural sector. It was reported that agricultural inputs provided under the humanitarian assistance sometimes arrived too late to have an impact because of administrative delays in the UN clearance procedures. Despite increasing productivity, the quality of food grains continues to deteriorate because of the lack of appropriate inputs.

Table 3. Nutritional status of children 0-5 and 5-15 years of age in 6 clusters of low income households in Baghdad

Outcome	1991 ¹	1993 ²	1993
	0-5 years	0-5 years	5-15 years
Mean Z score ³ (height/age)	-0.88	-1.57	-1.64
Mean Z score (weight/age)	-0.60	-1.54	-1.51
Mean Z score (weight/height)	-0.07	-0.71	-0.51
Proportion < -2 Z score (height/age)	16%	30%	33%
Proportion < -2 Z score (weight/age)	9%	35%	31%
Proportion < -2 Z score (weight/height)	2.2%	16%	11%

¹ Data from the International Study Team, August/September 1991

² Data collected in the same area by FAO team, November 1993

³ Mean Z score is the standard deviation from baseline nutrition values for the sample group, and is not extrapolated to the larger population.

Effect on Women

IST sociologists and lawyers conducted in depth interviews with eighty women through out urban and rural Iraq, and compiled a report on the state of women under the sanctions regime. The study found that the collapsed Iraqi economy had a particularly severe impact on women's lives. Fifty-seven per cent of the women interviewed reported having suffered from additional health problems since the Gulf crisis began. Eighty per cent reported that their domestic responsibilities had increased significantly, and that they felt overwhelmed by their daily struggle to provide their children with basic needs such as food and water. More than 90% had been forced to sell jewelry and household assets to pay for food. The situation was hardest for vulnerable groups, such as widows and the poor, who did not have personal assets to sell for their daily needs.

Psychological Effects on Children

In August 1991, IST psychologists specializing on the impact of war on children conducted in-depth interviews with 214 children of primary school age from the Amariyah shelter and from Basrah. They found levels of anxiety, stress, and pathological behavior among the children unprecedented in their 15 years of field work in war-torn countries. Nearly two thirds of the children interviewed believed that they would not survive to become adults. Eighty percent reported daily fear of losing their families through death or separation. Nearly 80% also reported experiencing shelling at close range.

Intellectual Embargo

Another consequence of the ongoing sanctions, which has not always been appre-

ciated and may be unintended, is the production of intellectual isolation in the scientific and medical community. Several researchers, scientists, doctors, and students reported that journals, periodicals, and textbooks were not available, and that requests to foreign publishers were mostly ignored and replies rarely received. Few UN publications were available, and papers and reports written about Iraq rarely reach the public domain.

Conclusion

The IST results from the mortality and nutrition, water and sanitation, agriculture and environment, and electrical facility surveys contradicted the claims of the Allied forces that the use of high-precision weapons and strategic targets produced limited collateral damage to civilian populations. Rather, the systematic destruction of electrical systems, bridges, communication networks, and fuel storage sites caused a public health catastrophe and threatened household food security. Because of the impact of the Gulf War and internal conflicts, the ongoing sanctions policy has made it difficult to provide assistance to rebuild Iraqi society.

The IST study was uncommon in several ways. First, it was composed mostly by students who took the initiative to challenge the media-driven characterizations of hi-tech war through scientific data collection. Students, however, are not always well situated to be heard by those in positions of power. Second, the study was carried out soon after the Gulf crisis, during a window of opportunity that enabled members to travel freely throughout the country for several reasons: (a) the government of Iraq was still recovering and had only begun to re-organize; (b) the government thought publicity about the impact of sanctions on civilians would elicit international sympathy and change the sanctions policy; and (c) cars hijacked from Kuwait and the availability of petrol made travel within Iraq easier. Third, the IST study secured foundation funding rapidly, and received considerable logistical support from the Jordanian government.

After completing the field work, the study team encountered problems disseminating the results. For one thing, by October 1991 the human impact of the Gulf War was not as media worthy as the work of nuclear investigators. Internally, differences emerged among IST administrators regarding the promotion of findings. Although the study was comprehensive in its approach and in its findings, those findings concerning mortality and the nutritional status of children under five years of age were promoted by a public relations firm hired by IST, and received

most of the media attention. Other aspects of the study (economics, mortality, nutrition, child psychology, and impact on women) had to wait two years before they were published in peer-reviewed journals.

The IST study effectively demonstrated the links between events that occurred in 1991 (war, civilian uprisings, and economic sanctions) and the devastating consequences for civilian life. The combined effects of these events on the humanitarian crisis, however, could not be disentangled. The IST study confirmed that casualties of war extended far beyond those caused directly by Operation Desert Storm, and were inextricably linked to the destruction of a modern society dependent on a developed infrastructure. The November 1993 FAO visit confirmed that the impact of sanctions had permeated the country, taking a toll on the coping strategies of civilians and the government.

Historically, sanctions have been a means by which states have regulated the behavior of other states that violate international agreements [11]. The assumption that the sanctions will bring about policy changes is challenged by the more conventional wisdom that "sanctions don't work." The specific sanctions against Iraq have created a tension between humanitarian objectives and political realities within the United Nations structure. Iraq is an oil-producing country and can pay for its own humanitarian assistance rather than deplete the coffers of an over-burdened UN humanitarian operation. Large amounts of Iraqi assets, which remain frozen in other countries, cannot be used to purchase food and medicine.

Since the imposition of sanctions, 12 million barrels of mostly Iraqi-owned oil have been trapped in the Turkish-Iraqi pipeline. Turkey has recently proposed refining and using the oil in its domestic market, in exchange for humanitarian goods -- food and medicine. While some countries (e.g., Russia, China, and France) have viewed this proposal as a "limited rescue operation," others (especially the United States)³ have viewed it as a violation of sanctions. Although in the past Iraq had made bilateral agreements with Canada and the United Kingdom to use limited amounts of its frozen foreign assets for food and medicine, there is no international consensus on the Turkish proposal.

Sanctions have been considered a deterrent to war, but in the case of Iraq the destruction of the infrastructure and subse-

3. U.S. Secretary of State Warren Christopher recently urged governments of the Gulf to "unanimously and strongly express...our common resolve to maintain the sanctions until Iraq complies fully." (NY Times, April 28, 1994).

quent public health and social impacts have been exacerbated by the sanctions policy. Moreover, the fact that an oil rich country has relied on international humanitarian assistance has created a tension among UN actors. Meanwhile, ordinary Iraqi civilians face the sobering reality of daily hardship and death, held hostage by policies of both its own government and of the international community.

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