The Humanitarian and Legal Implications of War in Iraq

An Initial Report By The Center for Economic and Social Rights / 1-30-03
Table of Contents

Overview
Introduction

Section One: Food and Nutritional Status In Iraq
   Food and Nutritional Status in Iraq Before the Gulf War
   Food and Nutritional Status During the Sanction
   Food and Nutritional Status if there is a War

Section Two: Infrastructure
   Electricity
      Pre-War Capacity
      The Current Status of the Electrical Infrastructure
      The Gulf War and Immediate Post War Effects
      The Current Status of the Electrical Infrastructure
   Water and Sewage Treatment Facilities
      Pre- and Post-Gulf War Water and Sewage Capacity
      The Current Status of Water and Sewage Treatment
      Vulnerabilities of the Sewage and Water Treatment System in the Event of War

Section Three: Health Care System
   Public Health and Preventive Medicine
      Major Public Health Indicators
      The Primary Health Center Network
      The Iraqi Primary Health Care System’s Preparedness for Conflict
   Curative Medical Services
      The Current Capacity of the Iraqi Medical System
      Emergency Medicine and Trauma Care
      Drugs and Medical Supplies
      Medical Manpower: The Decline of Medical Education
      The Decline of the Medical Work Force
      Vulnerabilities of the Medical System in the Event of War

Section Four: Humanitarian Intervention In the Event of War
Tables:
Appendix 1: International Law Framework
Appendix 2: Principles of Humanitarian Action
Research Team References
The Center for Economic and Social Rights (CESR) is a human rights organization based in New York City. From January 17 through January 29, 2003, CESR led an emergency research mission to South and Central Iraq to study the humanitarian impact of the economic sanctions imposed on Iraq since 1990 and the potential consequences of a possible United States-led military intervention in the near future. The CESR Research Team was composed of sixteen experts in food security and nutrition, public health infrastructure, primary health care, emergency and curative medicine, and public health law and international human rights law.

This report focuses exclusively on the humanitarian and international law implications of the threatened war against Iraq. We conclude that the potential human costs of war are unacceptable. The Team deplores the current rush to war and urges that all possible steps be taken to achieve peace in accordance with fundamental principles of the United Nations Charter. We believe that peace is still possible and that war must always be the last resort. We also deplore that the people of Iraq live under a repressive regime that abuses human rights and contributes to the current vulnerabilities of the population.

The Team based its conclusions on interviews conducted in Baghdad, Kerbala, Kut, Basra, Tikrit, Beiji, Mosul, Kirkuk, and Amman, Jordan. The Team collected extensive data from Iraqi civilians, clinic and hospital staff, government officials, representatives and program officers of a number of United Nations agencies, and staff of non-governmental organizations.

The report also draws on the analysis and interpretation of existing data, including published and unpublished documents from universities and non-governmental organizations (see attached references). In addition, the team had access to a number of confidential United Nations documents that have not been commented on previously. The Research Team encountered foreseeable logistical and time constraints related to the political circumstances. In addition, in view of the current political and security situation in Iraq, the Research Team was somewhat restricted regarding the questions we could pose to those we interviewed. Nevertheless, we were afforded an unusual degree of access to health, nutrition and infrastructure sites, including hospitals, clinics, food distribution points, water and sewage treatment plants, and electrical generation installations.

The conclusions of the CESR Research Team largely corroborate those of other independent teams and of the United Nations agencies. The population of Iraq has been battered by the imposed sanctions. The aspirations of the health system have been dashed. The gains made in disease control and mortality reduction during the 1980s have been totally reversed and, at present, hopes for a healthier future are dim. Many characteristics of Iraqi society today are more comparable to the circumstances found in long-term refugee settings than to those found in rapidly developing countries. The findings on which this comparison is based are made explicit in the body of this report.

Iraq is in need of humanitarian assistance now and will be in much greater need of assistance in the event of war. But the situation in Iraq is different from that in most other countries in which massive humanitarian interventions have been undertaken – the centrally-organized food distribution system, on which a large proportion of the population depends, is remarkably efficient. Other centrally administered programs, such as the provision of water and sanitation, health care, and education, are functioning, even if they do so under great stress. These systems need support, not replacement. Humanitarian assistance in Iraq, if forthcoming, should be in full support of existing systems and the establishment of parallel structures, so often the case in post-war relief efforts, should be rigorously avoided.
Prior to the first Gulf War (1991), Iraq’s public health system was one of the most advanced in the region. Malnutrition rates were low, primary health care was easily accessible, and tertiary (hospital-based) care was becoming increasingly sophisticated. Infant mortality was 47 per 1000 live births per year and the mortality rate of children less than five years old was 56 per 1000 live births per year. (UNICEF IRAQ – Working with Children to Build a Better Future, 2003) Considering these parameters together with other socio-economic variables, including educational levels and per capita income, UNDP’s Human Development Index ranked Iraq 96th among all nations, on a par with China and Iran.

The imposition of economic sanctions in August 1990, followed by the Gulf War of 1991, took a heavy toll on the Iraqi people. Severe damage to the public health infrastructure, including substantial disruption of the electrical grid and water supply, resulted in an increase in the incidence of diseases that had previously been under reasonable control. Outbreaks of communicable diseases, especially those related to poor water quality and inadequate sanitation became increasingly common.

This growing inability to prevent disease was compounded by a parallel decline in the availability of curative services. Interruptions in the delivery of essential medicines and medical supplies made it difficult to guarantee effective treatment for patients with chronic illnesses. The progressive deterioration of clinics and hospital buildings, as well as medical equipment, made it increasingly difficult for health personnel to practice
their profession. Finally, the disruption of contact with the outside world, and the resulting inability of health personnel to stay abreast of new developments in public health and medicine, contributed to the difficulty health professionals had in providing optimal care for their patients. Beyond the health system itself, reduced availability of food and a grossly unbalanced household food basket led to a marked increase in childhood malnutrition and undoubtedly, although less well documented quantitatively by surveys, the diminished nutritional status of older children, adolescents, and pregnant women. All of these contributed to a decline in the health status of the population.

In sum, the Research Team has found that the combination of a rapidly deteriorating public health infrastructure, a paralysis of both the preventive and curative medical services, and a precipitous decline in the quantity and quality of food available to the Iraqi population have contributed to a rapid “undevelopment” of the nation. Incredibly, during the decade, infant mortality doubled to 107 deaths per 1000 live births per year, and the under-five mortality rate skyrocketed to 131/1000 live births per year. Iraq’s place on in the Human Development Index dropped to 127 by the year 2000, on a par with the small southern Africa country of Lesotho – no other country has ever dropped so far, so fast.

In 1996, recognition by the world community of the devastating impact of economic sanctions on the civilian population resulted in the adoption the Oil for Food Program (OFFP). The implementation of the OFFP, a bountiful harvest in the past two year (following three years of drought) and the remarkable efficiency of the government food distribution system have contributed to a rapid turnaround in some social and demographic indicators. The quantity of food distributed by the Government of Iraq to the entire population has more than doubled and malnutrition rates have declined to less than half of the levels recorded in 1996. (UNICEF, Overview of Nutritional Status of Under-fives in South/Centre Iraq November 2002). Incidence rates for childhood diarrhea are reported to have declined as well, an improvement that would have a beneficial impact on the prevalence of malnutrition and on mortality rates. Primary care clinics and hospitals are better stocked in both medicines and supplies that they had been during the 1990s.

While encouraging, these recent improvements need to be carefully considered. Despite these recent improvements in health and nutrition indicators, the quality of life in Iraq has seriously declined since the pre-sanctions era. The CESR Research Team considers the current plight of the population of Iraq to be in some ways analogous to that of people living in a refugee camp. Their situation is characterized by:

- near-total dependence on assistance from the international community for subsistence and survival;
- a centrally-distributed ration of food that barely meets minimum international standards;
- water and sanitation system that is severely compromised and highly vulnerable;
- as of late, slowly-improving health and nutrition indicators;
- a health system that increasingly meets only the primary health care needs of the population, with a declining ability to care for chronic and non-communicable diseases;
- a cash-poor economy, due largely to the lack of a cash component of the OFFP in South/Central Iraq;
- severely limited communications with the outside world;
- increasingly limited educational and job opportunities;
- an absence of activities directed at economic and social development;
- a pervasive sense of uncertainty and despair regarding the future.

As the United States contemplates a military campaign, we are concerned with the potentially devastating humanitarian consequences of war. We find that a military intervention is likely to have an overwhelming impact on an already vulnerable population; a humanitarian disaster is likely to ensue.
The CESR Research Team interviewed UN and Government of Iraq officials responsible for the monitoring and implementation of the Iraqi Government’s near universal food distribution system in Central and Southern Iraq. In addition, we spoke with Iraqi civilians and workers at retail food distributors, food warehouses, and ration shops in Baghdad, Mosul, Kut, and Basrah.

Food and Nutrition Status in Iraq before the Gulf War

The Iraqi economy was dominated by the oil sector from the early 1950’s until the major cessation of exports in 1990 (the Gulf War). During this period there was improved prosperity for the vast majority of the population with very significant advances in the provision of health care.

Prior to 1990, Iraq had one of the highest per capita food availabilities in the region. It imported large quantities of food, which met up to two-thirds of food requirements. In the late 1980’s daily food energy availability was 3,200 kcal/day or on a par with industrial nations. Remarkably, a nutritional survey of children aged 0 to 8 years in the Baghdad area in 1989 found that their distribution of weight and height to be similar to that in the International reference population. (FAO 1993).

Reflecting the excellent nutritional status of the population, the infant mortality rate (IMR) had declined from about 120 per thousand live births in 1960 to 40-50 per 1000 by the late 1980’s. See Table 1.

Current Food and Nutrition Status

On August 6, 1990, the U.N. Security Council adopted Resolution 661 which imposed multilateral sanctions on Iraq. Within six weeks, the Iraqi Government introduced a national food rationing program. The basic scheme remains in place today. Following the Gulf War and the impositions of sanctions in 1990, food imports fell, nutritional status...
declined, and Iraq’s infant mortality rate increased to above 100 per thousand by 1998. (UNICEF 1999, Table 1).

In April 1995, the Security Council adopted Resolution 986, the Oil-for-Food program (OFFP), which would permit oil sales to finance imports of food and other essential humanitarian needs. This, while highly significant, has only served to reduce, rather than end, civilian suffering in Iraq. The country is now permitted to sell unlimited oil on the world market in order to buy food and humanitarian supplies. All proceeds from such sales, however, are placed in an UN-controlled bank account, to which Iraq has no access. The percentage distribution for expenditures remains similar to the original agreement and includes reparations for the Gulf War; UN operations in Iraq, repair and maintenance of the oil pipelines, and humanitarian supplies for the 3 million Kurds in northern Iraq. In practice, only about one-third of the original revenue remains for actual food and humanitarian supplies for the 21 million people living in Southern and Central Iraq.

Since the Gulf War, the nutritional and health status of the population has deteriorated. See Table Two (FAO 1993, 1995, 1997, 2000); see also Table 1 (MOH/UNICEF 1997, 1998, 1999).

Indeed, nutritional catastrophe was only avoided in Central/South Iraq by the Government of Iraq’s near universal implementation of the food ration system. Because of its efficiency and the fact that it has been operating for more than twelve years, a huge dependency on the ration now exists.

The size of the program has to be appreciated — it is by far the largest government food distribution in the world. Every month US $1.25 billion is derived from Iraqi oil sales. It is spent on the distribution of food by the GOI for the 25 million citizens. Of these, 16 million persons are fully dependent on the food ration.

In the event of hostilities, the food distribution system is likely to be disrupted. The Government of Iraq is preparing for this eventuality by distributing two months rations at each month distribution. The current monthly rations last approximately three weeks, with milk and legumes being more rapidly consumed than wheat and rice. (FAO 2000). In addition, some poor families sell some of their rations to purchase other necessary items.

UNICEF sponsored Community Child Care Units (CCCU’s) and the UNICEF Targeted Nutrition Programme (therapeutic milk and high protein biscuits), which are intended to treat malnutrition, are unlikely to be able to work effectively in a conflict environment. Finally, older children should not be forgotten. In the FAO (2000) Mission, 37% of school children aged 12-15 years in a poor area of Baghdad were found to be malnourished. These were children who had spent almost their whole life under the poverty induced by sanctions. Further disruption of food supply would have a significant effect.

Recent surveys in February 2002 show a decline in all indicators when compared to both 1996 and 2000 but still remain below those found in 1991. Values for 1991 were themselves poorer than those found in 1989. (FAO 1993). As an example, stunting was at 23.1% in 2002 while it had been 32% in 1996 and 18.7% in 1991. Similarly, acute malnutrition rose to 11% in 1996 from 3% in 1991 and had been 4% in 2002.

The basic ration nominally provides a minimum food basket for all Iraqi families. The composition of the ration as it has changed over the years is shown in Table 3. By 1995, as foreign exchange became more and more constrained, the ration was able to provide only about one-third of the food energy and protein as compared to 1987-89. The ration, while essential for survival, has remained deficient in a number of minerals and vitamins, especially vitamins A and C. The ration does not contain any perishable components and household buffer reserves can easily be created by the provision of monthly rations in advance.

The rations system works as follows. Each year, each family receives a ration sheet listing its individual entitlement. Each family member, adult or child over age one, receives the same ration. Each family is registered with a local retailer (usually a local shop) close to their home from whom the ration must be purchased. Each month the family submits its monthly ration sheet in addition to a nominal fee of
ID 250 (or 12 cents) per family member in exchange for its monthly allotment.

The CESR Research Team found that current (January 2003) market value of the ration to be ID 12,000 — 50 times the amount paid for it. This is a somewhat smaller value than ascribed by UNICEF (2002) which found the value of the ration received to be $24.50. Such calculations, however, are dependent on both the fluctuations in food prices and in the exchange rate. Whatever the actual values the ration system represents, it consists not only of the physical provision of food on a regular basis, but also a considerable income subsidy.

The CESR Research Team learned that the Iraqi government has issued advanced rations to the Iraqi civilian population since October 2002. As of January 2003, the Government of Iraq was issuing April and May rations. Governmental officials we spoke with could not tell us what steps it would take when this year’s ration coupons will be exhausted which is expected to occur in July 2003. (CESR 2003).

There are 46,000 food retailers in South and Central Iraq. Retailers make a small income from distributing the ration and they often combine ration sales with being also a local shop for food and confectionary. The CESR Research Team visited a number of warehouses in Central and Southern Iraq. Warehouses are responsible for all foods in the food basket except wheat flour, which is distributed by a similar mechanism directly from the Flour Mill.

The CESR Research Team also visited a number of retail outlets in Baghdad, Mosul and Basrah areas. They were broadly similar in their operations. Retailers are refunded at the warehouses for the difference between what was paid and the government price together with the cost of local transportation. Food distribution can be their only source of income but several retailers also reported that what they were doing was felt to be a community service for their neighbors. It was observed that much work is required to weigh out the allocations and the sheer quantity to be taken away by a family with several members is notable. This is even greater when double rations are provided as at present (January 2003) as can be seen from the consideration that the weight of a single person’s ration for one month amounts to some 20 kg.

The system is fully computerized. It is monitored by WFP in the Center and South and who are fully responsible for distribution in the North. All food in the food rations are paid for by Iraqi oil revenues through the OFFP.

**Food and Nutrition Status in the Event of War**

The Refugee Camp analogy is pertinent to the current Iraqi food security situation. Like refugees, Iraqis are currently dependent upon a UN overseen food import system which is distributed by a central authority to all inhabitants. In the ration system, energy needs are met. However, the ration has inadequate supply of vitamins and minerals and should be supplemented by fresh foods, which are beyond the economic reach of many.

There is some dispute about how food will enter the country in the event of a war. Officials from the United Nations indicated that as much as 90% of the OFFP food stuffs enter the country through Umm Qasr. According to the Iraqi Minister of Trade, the proportion entering through Basrah has been reduced in recent months because of highly increased insurance rates. The CESR Research Team had no means of verifying either of these assertions, but remains concerned that the interruption of food imports in the event of war will disrupt the Iraqi food distribution system.

The past years' amelioration of malnutrition indicates that the measures taken in the areas of water, sanitation, and food availability are at last working but that the children remain highly vulnerable. For example, Community Child Care Units, the equivalent of supplementary feeding centers will cease to function. War with its likely disrupting effects on food availability and on the quality of water and sanitation could precipitate widespread malnutrition again throughout society especially in the Center/South.
The CESR Research Team investigated the essential public health infrastructure – electrical plants, water treatment, and waste water facilities in Mosul, Tikrit, Kirkuk, Baghdad, Kerbala, Kut, Basra and Faw.

A. Electricity

In Iraq, the generation and transmission of electricity is critical to the normal functioning of most elements of the health and public health systems. As described in detail below, the CESR Research team found the current electrical supply in many regions of Iraq to be intermittent at best.

Pre-War Capacity

Prior to the Gulf War, Iraq was described by the United Nations as a high middle-income country with a modern social infrastructure. With the exception of some isolated rural communities, the entire society had become highly dependent upon the national electricity grid—telecommunications, industry, agriculture, education, housing, health, water, and wastewater. A combination of hydroelectric, thermal, and gas turbine generators provided an installed capacity of 9,500 megawatts (MW). At that time the reserve capacity was estimated to be 40%. (International Study Team, 1991).

The Current Status of the Electrical Infrastructure

A number of factors have contributed to the chronic decline of the electrical capacity of the country under the sanctions regime, including aging infrastructure, delays, difficulties in obtaining spare parts, poor maintenance, and the exodus of trained professionals due to lack of government financial incentives. Twelve years of sanctions have left the system only partially functional.

Coordinated attempts have been made to repair the stressed electrical system. The UNDP has partnered with the Iraqi National Department of Electricity to rehabilitate many failing power generators. Orders for spare parts for this sector have been denied or delayed during much of the life of the Oil for Food Program (OFFP). (UNDP, Sectoral Briefing Paper: Status of Electrical Sector, January 12, 2003). In 1999, spare parts began to be imported with the passage of U.N. Security Council Resolution 1409, which eased the sanction system by adopting an itemized list of permitted imports. Even after a determined rehabilitation partnership between the government of Iraq, international NGOs and the UNDP, the generation capacity is only about 4000 MW or 43% of installed capacity.

In many parts of the country, the electrical systems are unreliable. On site visits, the CESR Research Team found that generators still are not operational such as one of two that supply electricity to the Kirkuk Unified Water Treatment Plant. (Engineer Nihad Hadi, ICRC). Spare parts for this plant have been on order for more than a decade. In Baghdad, a primary source of electricity— the G.E. generator in the South Baghdad Power Station, is over thirty years old. It currently operates at 50% efficiency. Much of it has been slowly dismantled for spare parts. Bailing wire is used to hold injectors open because there are no other parts which can be cannibalized. When parts were ordered, the Sanctions Committee repeat-
edly returned their request, requiring additional technical information, leading to a delay of over four years. No spare parts ever arrived. (CESR 2003).

Because there is no commercial protection for any of the contracts under the Sanctions Committee, when a replacement part does arrive after years of delays, it may be the wrong part. The government of Iraq has no recourse. The CESR Research Team saw large pieces of new equipment still in the crates after two years, unused for lack of a specific adaptor that the manufacturer failed to include. Two new power plants in Salah Al Din and Al Shimal worth an estimated $81 million have been awaiting Sanctions Committee approval of necessary components for more than one year. (Office of Iraq Program, 2002)

Other problems have been caused by delays in the letters of credit, technicians of foreign suppliers refusing to come to Iraq, and cancellation of contracts by vendors. (UNDP Sectoral Report, 2003)

These observations were confirmed by multiple international NGOs.

Blackouts currently average 12-14 hours per day in some urban neighborhoods (Engineer Sami Yusuf Jagou, Department of Electricity, Kirkuk and UNDP Sectoral Report, 2003). Nationally, power cuts have been reduced from an average of 15 hours per day in 2001 to 9 hours per day in 2002. These power outages adversely affect all aspects of daily life including the health system. NGOs and United Nations agencies have noted that large vaccine deliveries in Iraq were lost because of lapses in the cold chain (refrigeration). (CESR)

Hospitals experience power failures several times per day. Such electrical fluctuations damage medical equipment and interrupt important medical procedures such as x-rays or surgery. Hospitals, water treatment plants, and sewage pumping stations all have back-up generators but they are designed to operate several hours at a time. Many of them are old. Many do not have significant fuel storage capacity for sustained operation, and almost all of them function at considerably less power than is required for normal operating conditions — 25% for water treatment plants, 50% for sewage pumping stations, and 60% - 70% for hospitals. (CESR and ICRC).

Residents have not always sat idly by waiting for electricity. There is a brisk market for smuggled generators so when power is cut or fails in a commercial area at night, life goes on — albeit in a somewhat dimmer fashion. In the Al Khadra suburb of Mosul, hundreds of wires from individual homes converge on a trailer-size building in the Adan neighborhood to an electric co-op. Built with a 1980 with a Detroit Diesel truck engine, the generator supplies 400-500 homes for an average of 13 hours per day when the national grid is down or fails. Residents themselves paid for the equipment, support the operators, and the delivery of diesel fuel that totals to a fee of 2000 Iraqi dinars (U.S.$1 ) per amper; most families use three amperes per month. One resident told us, “It’s not much power per family, but it keeps our refrigerator cold and my children no longer depend upon candles to study.” (CESR 2003).

The United Nations estimates that the total cost of rehabilitating the generation capacity as well as the transmission infrastructure of Iraq is $20 billion. (United Nations, Current Portrait, 2003). Since the OFF Program was implemented in 1996, slightly more than $3 billion has been approved and funded for rehabilitation of the over loaded electrical sector. For reasons previously mentioned only $2 billion or approximately 67% of that has arrived in Iraq. An additional 99 projects valued at $360 million are waiting funding. Practically no funds have been available or allocated to repair the fragile transmission infrastructure. (UNDP Sectoral Report, 2003).

The targeting of the electrical sector by a U.S. military intervention in 2003 will be nothing short of catastrophic not only for the health, water, and sanitation sectors but for industry and agriculture as well.

Water and Sewage Treatment Facilities

The CESR Research Team examined the major components of drinking water and sewage management including water treatment. The Team visited municipal water and sewage facilities in Mosul, Kirkuk, Baghdad, Kerbala, Kut, and Basra and collected information from plant operators, and municipal offi-
cials. (See attached Table for the specific sites visited).

The following analysis in addition draws on interpretation of existing information in published and unpublished documents from academics, governmental and non-governmental organizations. Our findings generally corroborate those of other independent teams and UN agencies. The extensive site visits allow the team scientist to draw specific conclusions about the facilities from direct observation.

**Pre- and Post-Gulf War Water and Sewage Capacity**

In the decades before the Gulf War, the Iraqi population had access to a well-developed public health and sanitation infrastructure. Before 1991, potable (safe) drinking water was available for residents of 95% of urban areas and 75% of rural. (UNICEF Iraq the Situation of Children in Iraq February 2002.) This was achieved by a system of 210 water treatment plants, 1200 mobile plants primarily for rural use, 50 pumping stations and 40,000 kms of pipe. In January 1991, this infrastructure was functionally destroyed. Access to potable water declined to an unmeasured number. Within several years the system had been repaired to the extent that by 1997 urban access to potable water was 94% and rural 41%. By 1999, these rates had improved to 94 and 45.7% respectively according to UNICEF. CESR Research Team members believe that these numbers are high and refer to access to any water, not safe water. At the same time, over the decade 1990-2000 potable water quantity (availability) decreased dramatically from 330 to 150 liters per day in Baghdad and 180 to 65 liters per day per person in rural areas. The national output of potable water is presently only 40-60% of pre-Gulf War levels.

**The Current Status of Water and Sewage Treatment**

The rehabilitation of the water and sewage treatment system is practically impossible under the sanctions, even under the improved OFFP framework.

For example, water quality has not been restored since the war. Water quality last reported by the Iraqi Ministry of Health and the WHO in 2000 did not meet current standards and over 40% of samples were highly contaminated. According to UNICEF 70% of water currently distributed has turbidity exceeding 10 units occasionally 25, when the standard is less than one. Turbidity or cloudiness is a gross measure of effective water filtration. Counts of coliform and other bacteria are not reported but water treatment plant managers told us that, when taken, these measures are rarely within current standards. In some areas especially in the southern provinces raw, untreated, water is added to meet increased demand particularly in the summer. (GOI/UNICEF Programme Review 1990-2000. Sector Review Report: Water and Environmental Sanitation). During the period 1990-2000 reported episodes of typhoid increased from 2,200 to over 27,000. (UNICEF Situation of Children in Iraq 2002).

Much of the treated water is lost through broken mains and pipes, which also allows for drinking water contamination by sewage. The CESR Research Team observed these breaks in all the cities that we visited. (CESR 2003) Water treatment plant directors with whom we spoke estimate that 30-40 percent of treated water is lost in transmission. (CESR 2003). CESR Research Team members interviewed engineers at the Baghdad and Basra water treatment plants who stated that they were producing water at 50 and 80 percent of design capacity respectively because electricity is intermittent. Municipal water treatment is not possible without electricity. Both plants have back up generators and can continue pumping during the daily power outages, but at greatly reduced capacity. (See electricity section above). In addition, the plants have diesel fuel for only a few days operation without electricity, at best.

Another impediment to the provision of clean water is the availability of spares, parts, and operating materials, particularly chlorine. In interviews with CESR Research Team members, workers at both plants acknowledged that to meet water demand untreated or partially water was occasionally added to the main. The principal reason for these two plants operating at reduce output is the lack of replacement.
parts and spares. Pumps and motors are kept running by permanently turning off others and cannibalizing parts. The first and most vehement complaint of the engineers responsible for water and sewage facilities is the effect of sanctions on contracting for parts and replacements. In spite of their best engineering and bureaucratic efforts the process of ordering, justifying, approval and receipt of these parts takes years. Replacement pumps and filters are often after years of effort denied as “dual use” (for civilian and military purposes). The CESR Research Team learned that an additional barrier to sanitation plant functioning is the decline in trained staff. Between 1990 and 2000, the number of employees in the General Corporation for Water and Sewage fell from 20,000 to 11,000 and the average seniority level fell from 20 to 9 years.

Today safe (potable) drinking water in Iraq is not adequate in either quantity or quality. Water and sanitation networks remain in poor state of repair. However, according to a recent United Nations multi-agency report the deterioration of water facilities has been halted resulting in improved access to safe water. The amount available in urban areas is now estimated to be 197 liters per person per day compared with 166 liters in 1997 (UN Portrait of the Current Socio-economic development situation in Implications in Iraq based in Specified Scenarios 20 January 2003).

In rural areas and homes not connected to municipal water, water distribution by truck or donkey cart may be infrequent as once per day or once per 10 days with as little as 20 liters per household being delivered. (UN Portrait of the Current 20 January 2003). The unavailability of water accounts for the many cases of dehydration related illness that team

Municipal sewage treatment is incomplete and sewage often bypasses the plant completely. Plant managers at both the Baghdad and Basra main sewage treatment facilities told the CESR Research Team that because of main pump or other failures the plant could not operate and that over time at least 50% of plant sewage inflow was shunted directly into the adjacent river. Official estimates state that 500,000 tons of raw sewage enters the waterways daily for the entire nation. (GOI/UNICWEF Program Review 1990-2000; Sector Review Report for Water and Sanitation). The CESR Research Team is concerned that this figure is an underestimate. The CESR Research Team interviewed waste water workers in Mosul, Iraq’s second largest city of 3 million people. The workers estimate that there are 200 liters of waste water per person per day. Using this figure, 600,000 tons of sewage per day is discharged into the Tigris river from Mosul alone. They also point out that an unknown percentage of city residents are not connected to municipal sewage and use septic tanks or open drainage.

Vulnerabilities of Sewage and Water Treatment System in Event of War

If war returns to Iraq, the CESR Research Team believes that there is an imminent risk — during and post conflict - to the sewage treatment system. Indeed, the sewage system is likely to entirely collapse. In Baghdad, where the sewage system serves 4 million people, this poses a severe public health hazard. If electrical power fails, sewage will back up in the system and rise onto the streets and into people’s homes.

Water and sanitation systems and equipment are fragile and vulnerable. Having functioned for a decade without capital investment, maintenance, and spare part their operation is “jury-rigged” and unsustainable. After another military attack they are likely not recoverable and would not function until they were replaced.

Water pumping and treatment and sewage management systems cannot operate without electricity. Disabling the electrical supply disables sanitation.

Currently, at least half Iraqi drinking water does not meet WHO quality standards and the incidence of water born disease particularly in rural areas continues to increase. Illness and death rates of children reflect poor water quality and are worsening without war. Military destruction of water treatment facilities will guarantee large scale epidemics of water born illness.
Public Health & Preventive Medicine

Before the Gulf War, Iraq had an extensive national health care network that was well-integrated with the curative health system. Primary care services were available to 97% of the urban population and 71% of the rural population. (United Nations 1/20/03).

The combination of infrastructural damage during the Gulf War and the impact of sanctions have seriously affected Iraq’s primary health care capacity. According to UNICEF, one-third (300 out of 900) of all primary health care centers are in urgent need of rehabilitation. (UNICEF Briefing South/Center Iraq Health).

Major Public Health Indicators

Childhood Malnutrition: According to UNICEF, the rates of childhood malnutrition in South/Center Iraq increased steadily between 1991 and 1996. Among children under five, chronic malnutrition rose from 18.7% to 32%, underweight children increased from 9.2% to 23.4%, and acute malnutrition increased from 3% to 11%. (UNICEF November 2002) With the advent of the OFFP, these indicators have improved. For example, a preliminary survey of Iraqi children, conducted in February 2002, found that chronic malnutrition has dropped to 23.1%, underweight children decreased to 9.4%, and acutely malnourished children decreased to 4%. (UNICEF Working with Children to Build a Better Future, 2002). These levels are only modestly above what they were in 1991

Infant and Child Mortality and Morbidity:

Immediately after the Gulf War, a number of studies documented a precipitous rise in the under-five mor-
tality rate among Iraqi children. One survey found a three-fold increase in under five mortality. (International Study Team) In 1999, Iraqi Ministry of Health, UNICEF and WHO conducted a new study which determined that under five mortality had increased from 56 deaths per thousand for the period 1984 to 1989 to 131 deaths per thousand for the period 1994-1999. For the same period, infant mortality increased from 47 per 1000 live births to 108 deaths per 1000 live births. (UNICEF/GOI Child and Maternal Mortality Survey 1999).

Recently, the incidence of some major childhood diseases may have declined. Facility-based reports from the Ministry of Health, cited by UNICEF (Overview of Nutritional Status of Under-fives in South/ Centre Iraq) indicate that the number of cases of diarrhea in children under five years old fell by 19% between 1998 and 2001. This improvement is attributed to a better food supply (from both an increase in the caloric content of the government-distributed ration and increased local food production) and a 30% increase in the availability of potable water.6

Vaccine-preventable diseases: Vaccine-preventable diseases of children appear to be under reasonable control. The rapid and massive response to an outbreak of poliomyelitis in 1999 has resulted in the apparent elimination of the disease from the country, with no cases being reported, despite intensified surveillance, since 2000. Cases of measles are reportedly at a relatively low level (the Ministry of Health reported 4,088 cases in 2001).7 Vaccination coverage for other diseases is less than optimal: the UNICEF Multiple Indicator Cluster Survey of 2000 found that fewer than 70% of children less than two years old had received a third dose of DPT vaccine, and only 81.8% were fully vaccinated against polio. Measles vaccination coverage was 78.1%, although the report suggests that mothers’ verbal reports of vaccination contributed to this figure — only slightly more than one-half of the children had a written record of measles vaccination.

Although no vaccines are currently subject to sanctions, health authorities continue to report periodic shortages due to interruptions in supply. Cold chain problems have been encountered and some shipments of BCG vaccine have had to be refused. According to a WHO official, an inconsistent supply of vaccines (and other medicines and supplies) may contribute to a lack of confidence in the public health system. The current emphasis is on measles vaccination — a nation-wide campaign is being planned in order to increase measles vaccination coverage in older children (WHO reports that 44% of measles cases occurring in 2001 were in children between the ages of 5 and 14 years old.)

Control of Communicable Diseases: During the past ten years, there have been outbreaks of typhoid fever, cholera, measles, diphtheria, poliomyelitis and, most recently, important increases in the occurrence of both cutaneous and visceral leishmaniasis (kala-azar). Although it is difficult to attribute, with any degree of certainty, the occurrence of these outbreaks to either the deterioration of living conditions, and especially the water and sanitation systems, it is clear that conditions remain ripe for future outbreaks of water- and insect vector-related to occur.

The Primary Health Center Network

Primary Health Care (PHC), or Maternal and Child, clinics are the principal mode of access to basic health care for the vast majority of Iraqi citizens. There are far fewer functioning PHC clinics now than there were before — according to UNICEF, there are 929 PHC centers remaining out of a pre-Gulf War network of 1,800. (UNICEF February 2002). Of these, 300 are in urgent need of physical rehabilitation. (UNICEF, Working with Children to Build a Better Future, 2002).

The CESR Research Team visited five Primary Health Care centers in Basrah, Mosul and Saddam City, a poor neighborhood of Baghdad. At the centers, we interviewed a number of treating physicians, dentists and lab technicians. For the two Baghdad clinics, we were accompanied by Dr. Niema Saeed Abid, Deputy Director of Preventive Health in the Iraq Ministry of Health. These PHC clinics serve
catchment areas of between 100,000 to 150,000 people, and offer a broad range of services to an average of 100-150 patients a day. The PHC clinics provide basic services: health education, antenatal care, birth registration, vaccination, treatment for common illnesses.

By far the most important diseases seen at these clinics are childhood diarrhea and acute respiratory infections (ARI). There is a distinctly seasonal occurrence of these conditions, with ARIs seen during the colder months and diarrhea increasingly significantly during the summer. Clear protocols exist for the treatment of these conditions, and guidelines, adapted by the Ministry of Health from WHO materials, were posted on the walls of each clinic. The observations of the RT were that these guidelines were, for the most part, being followed.

Following the Gulf War, the PHC clinics experienced significant hardships owing to the lack of medications and basic medical supplies. In recent years, since the implementation of the OFF Program, the situation has significantly improved. PHCs now generally have access to basic medicines and supplies, with occasional ruptures of stock, but much of their equipment is in disrepair and laboratory and dental capacity is restricted.

A major change in the health system has been a shift from fully subsidized service provision to a partial fee-for-service system. Prior to 1991, all health services provided to the Iraqi public were free of charge. In 1998, the Ministry of Finance piloted an experimental user fee program in which patients were asked to pay a small fee (250 dinars) for clinic or hospital visits, lab tests, and prescriptions. Formalized in 1999, government hospitals and primary health clinics now operate this user fee system in order to generate revenue for building maintenance and to supplement the income of health staff. The physicians at the PHC clinics draw approximately a quarter of their salaries from the Ministry of Finance; user fees are used to pay the rest. Accordingly, there is significant decentralization of budgetary authority, with each Center functioning relatively independently. The CESR Research Team’s survey of 12 District and Referral Hospitals and 5 clinics indicate the widespread adoption of user fees. They apparently have had a positive effect on the financial state of primary health centers and, according to physicians we interviewed, the system has been well accepted by the public. Furthermore, access to services and utilization rates do not seem to be affected – free services are available to those who cannot afford to pay. There is no formal means testing – exceptions, and there are reportedly few, to the fee-for-service scheme are granted at the discretion of the clinic director.

Most physicians and dentists keep private practices in the afternoons and it is now permissible to practice privately without holding a government post. According to those we interviewed, most of their income is derived form their private practices.

The Iraqi Primary Health Care System’s Preparedness for Conflict

The CESR Research Team found that a number of the PHCs have prepared emergency plans in case of war. All of the clinics we visited had generators, and they have stockpiled fuel. Small stockpiles of medicines and other supplies are kept by the Ministry of Health in a central store. One clinic, in Mosul, had set up three committees: (1) first aid for the wounded; (2) furniture/physical plant preservation; and (3) firefighting. It was not clear whether their plans were comprehensive or to what degree they could be implemented. For the most part, there was an air of resignation among the staff – they were continuing on with their daily routines, expecting the worst, but hoping for the best.

In response to a question about her biggest fear in the event of a war, Dr. Najat, a PHC physician in Mosul told us: “Yes, we are not afraid, we are working rationally and normally, we are adapted to this situation.” But when asked how she explains the situation to her children, Dr. Najat’s eyes filled with tears and her usual effervescence subsided. One of her colleagues, Dr. Qazaz, filled the awkward silence which ensued by explaining “[W]e are not brave, but we are used to it. Since the 1980s they have been bombing us,” referring to the combination of the Iran/Iraq and Gulf Wars.
Other preparedness exercises have been taking place. In December 2002, WHO officials from Geneva and the Regional Office in Cairo held a training course on Public Health in Complex Emergencies, during which select district level health personnel were training as “master trainers” in disease surveillance and communicable disease control in emergencies. The training, which reviewed the leading causes of morbidity and mortality in times of conflict and developed specific procedures for notification and response for Iraq was well received. These trainers, upon return to their districts, have been organizing local training for district staff. The draft document cited above, Communicable Disease Profile – Iraq, 2003, has been prepared by WHO as a primer to accompany these courses.

Curative Medical Services

Prior to the Gulf War, Iraq had an excellent health care system. It provided primary health care to more than 90% of its population and had large hospitals in urban centers with state of the art facilities. (ICRC). Iraq’s health care system had a well-developed network of primary health centers, district hospitals and tertiary referral hospitals. (Swann). Specialty surgical care, laboratory testing and comprehensive treatment options were available to the Iraqi population at most levels of health care. (UNICEF briefing). Twelve medical schools produced well-trained medical officers, many of whom obtained subspecialty training in the United States and Europe to bring state of the art medical care to Baghdad. (CESR Interviews).

The Iran-Iraq War (1980-88), the Gulf War (1991), a repressive regime and the subsequent twelve years of UN sanctions has had a profound effect on Iraq’s health system. The first six years of sanctions, compounded by the effects of the damaged electrical, water and sewage infrastructure, led to the effective isolation and marginalization of Iraq. A well documented decline in the health status of Iraqi citizens ensued. (International Study Team 1991, UNICEF 11/02)

Recent modification of the Oil for Food Program (OFFP) has afforded some relief in the provision of basic health services. (UNICEF 11/02) However, these modest improvements in health statistics belie the vulnerability of Iraq’s health system. Restrictions imposed by sanctions and the bureaucracy of the OFFP severely constrained the development of the health sector, and left Iraq’s health system in a state of chronic disrepair (ICRC). Iraqi health providers face mounting public health threats with limited resources and little hope for substantive improvement. (CESR interviews). Simply put, sanctions gradually have ground the curative capacity of the Iraqi health system into obsolescence.

The Current Capacity of the Iraqi Medical System

HOSPITALS:

CESR’s Research Team surveyed twelve district hospitals and referral centers in urban and peri-urban Baghdad, Basrah, Al Faw, Mosul, Ab Al Khasaid, Kirkuk, Tikrit, Beiji, Karbala and Al Kut. We found that outside of Baghdad, most referral hospitals and district hospitals are over-crowded, ill-equipped, and poorly maintained.

Lack of Equipment: 92% of hospital directors (or representatives) surveyed by the Research Team indicated that they had major restrictions in the availability of basic medical equipment. The lack of equipment severely limited the ability to render tertiary care to critically ill patients, trauma patients, and individuals transferred from Primary Health Centers. (CESR 2003) In addition, 83% of Hospital Directors told CESR that they had a limited supply of drugs, many of which were nearing their expiration dates.

Decline in Surgical Care: The inability to provide intra-operative and post operative care was a major constraint for most hospitals surveyed. (CESR 2003) Only one major referral center had access to ICU ventilator support and cardiac monitoring and pulse oximetry. In prior surveys, the World Health Organization found persistent equipment shortages led to the decline in the number of major surgical opera-
tions to about 40% of pre-sanctions rates. (WHO 1995).

Reductions in Lab Services: CESR found a general inadequacy of hospital services. (CESR 2003). Compared to 1990, reductions in laboratory services and hospital support services seriously affect the functioning of district and referral hospitals. (WHO 1995) The lack of essential laboratory equipment and chemicals and radiology equipment prevents necessary testing and treatment. (WHO, 1995).

Inadequate Electrical and Water Supplies: Hospitals and health facilities depend on an electrical and water system which does not meet minimum requirements and are likely to be further damaged and interrupted in the anticipated conflict. (reference) (Save the Children UK report: 4/02) International relief organizations, including Red Cross, CARE, Medicines du Monde and Premiere Urgence have attempted to refurbish water systems and re-equip hospitals, but these efforts are ad hoc at best. (Swann: Dying for Peace).

Profile: Saddam Pediatric Hospital in Baghdad
The Saddam Teaching Hospital is one of the busiest pediatric referral centers in Baghdad. Because of the sanctions regime, the hospital has contended with a lack of access to medications and equipment, interruption in the flow of supplies, and bureaucratic delays which have compromised its quality of patient care. This decline is best told by a medical resident:

“This used to be a modern hospital, with excellent facilities. We used to have many opportunities to study abroad and learn new approaches. Now I have no access to the literature, and no chance to learn new treatment techniques. I am completely isolated.”

Emergency Medicine & Trauma Care
The Iraqi medical system is poorly equipped to address its current emergency health needs; much less those required in war. There is little capacity for rapid surgical intervention, trauma care, or resuscitation in either the pre-hospital or immediate hospital settings. (CESR 2003) Hospitals have limited ability to triage and resuscitate critically ill medical patients or severely injured trauma cases. In the 12 hospitals surveyed by the CESR Research Team, only two (17%) had the supplies and expertise to accomplish even basic resuscitations (CESR 2003). In the event of war, it is almost certain that the emergency care system will be overrun with civilian casualties. Few physicians with emergency and trauma training have neither skills nor the supplies to care for a large number of traumatic injuries. Other limitations in the Iraqi emergency and trauma care system include:

Blood Banking and Surgical Capacity: The Ministry of Health maintains blood supplies in centralized urban blood banks. Urban hospitals have ready access to blood supplies, but many district hospitals have no storage capacity and have no ready access to blood products for transfusion. (CESR 2003) In the event of a traumatic injury requiring transfusion, patients must be transferred to the nearest referral center. This is a risky practice in times of peace, and can cripple the surgical capacity in times of conflict.

Emergency Medical Services (EMS): The Ministry of Health has recently distributed 900 new ambulances throughout the country to improve basic emergency transport, but this remains at one-half of the country’s present needs. (MOH and Swann. Dying for Peace). A hospital based EMS system exists in Baghdad, but the Research Team found that most of pre-hospital and ambulance support is inadequate both in and outside of Baghdad. This system is only partially functional in times of relative calm, it will be easily overwhelmed in the advent of a conflict with significant number of civilian casualties. (CESR 2003)

Drugs and Medical Supplies
Severe shortages of medications and supplies peaked in the mid 1990’s. Since the adoption of the OFFP, widespread shortages have been averted. But several
supply problems remain. The Research Team found that the distribution of medications and supplies to hospitals and primary health care centers is often interrupted and inconsistent. Medical staff consistently reported to us that there were frequent shortages of certain antibiotics, chemotherapeutic agents, and cardiac medications. Pharmaceutical and medical supply interruptions undermine the standardization of medical practice and routine care of patients. Certain drugs (20% of essential drug lists) and much electronic and imaging technology continue to be restricted by the Sanctions Committee. (Swann. Dying for Peace). The Ministry of Health has increased its storage capacity for essential drugs and supplies. While this is helpful for times of relative peace, it is an insufficient measure to accommodate for treatment needs in the event of war.

Medical Manpower: The Decline of Medical Education

The CESR Research Team found that physicians and medical professionals throughout Iraq aspire to medical excellence, but limited by an “intellectual boycott” that has left them without access to current literature, specialty training or access to advanced training. (CESR 2003) Professional development has been stifled by the economic climate, sanctions, and the inability of foreign travel by Iraqi health professionals. Medical personnel have no outside contact, no access to current medical literature, and no exchange of up to date medical information. They are isolated and their skills are antiquated.

“Professionals of all types, across the board, have been dispossessed... They've been locked away for 12 years and cannot re-emerge.”
- NGO representative

The lack of educated health professionals and the decline of the society's medical culture have far-reaching implications for Iraqi health care providers and is ultimately damaging to the future of Iraqi health care.

Decline of the Medical Work Force

Iraq's economic collapse has transformed the medical work force. The system has seen a steady decline in the number of practicing medical professionals due to an emigration of health workers. (UNICEF 2003). Physicians, dentists and other health professionals collect meager government salaries of $10 - $20 per month in an inflated economy. Health professionals are unable to pay for transportation to and from work, keep their children in school, and buy clothing for their families. Physicians have turned to operating kiosks and taking other jobs that pay a living wage. (CESR). Large numbers of doctors and dentists have dropped out of the medical profession to find better paying employment; many have become United Nations food distribution monitors. (CARE correspondence).

This downward transformation, combined with a worsening work conditions, has discouraged entry into the health professions, raising serious questions about the future of health care in Iraq. Private practice now has replaced much of the free medical care widely available prior to 1990. Patients have reduced access to care, incomplete investigations, and more expensive treatment options. (Swann: Dying for Peace).

Vulnerabilities of the Medical System in the Event of War

The CESR Research Team finds the health system of Iraq to be in a state of chronic decline. Primary public health services, while seeming to function adequately, are hampered by interruptions in drug supply, availability of vaccines, and deteriorating equipment. Hospitals, formerly able to provide sophisticated care are now ill equipped to care for the patient population. Emergency services and trauma care are not well-developed and could not bear the brunt of the additional stress that would be imposed by a conflict situation. Further declines in the basic public health infrastructure of the country, especially in food distribution, water supply, and sanitation, would result in an increase in patient load that would overwhelm the public health and curative health systems.
A military intervention in Iraq is likely to lead to a humanitarian crisis that far exceeds the capacity of the United Nations agencies and non-governmental organizations (NGOs) in Iraq. Over the past months, many organizations have begun preparing themselves for such an eventuality. One of the most important of the planning efforts is the Humanitarian Operations Centre (HOC) in Kuwait City, established by the US Department of Defense, and staffed by civilians. Although US forces have articulated that they “do not plan to play a direct role in humanitarian assistance” unless there is a clear-cut need or unless they are asked to intervene, they will undoubtedly be in communication with both the UN agencies and the NGO community. (draft memorandum entitled “Versoix II”, Ramada Park Hotel, Geneva, 12-13 January 2003).

NGO relations with the military have been complex. Although many US-based NGOs have been participating in simulation exercises and coordination and training activities with Department of Defense, there is a strong desire on the part of the same NGOs to remain independent and neutral in the delivery of assistance. All those interviewed by the Research Team felt strongly that coordination of the humanitarian relief effort articulated in the IASC Principles on Military-Civilian Relations and the Principles Guiding Humanitarian Action should be strictly respected (see Appendix).

Yet several UN representatives and one NGO interviewed by the Research Team expressed the fear that the US military and/or either the Department of State or the USAID Office of Foreign Disaster Assistance will control the flow of funds to NGOs. This would result in NGOs deemed ‘friendly’ to the US being able to operate in Iraq, while those more critical of US policy would be disadvantaged.

At the time of this report, a consortium of US-based NGOs had received a grant of almost $1,000,000 to establish a joint office in Amman, Jordan. Other NGOs are undoubtedly amassing on the borders or making plans at their headquarters to participate in a post-conflict relief effort. An influx of NGOs similar to the scenes that accompanied such recent crises as Goma, Kosovo, East Timor, and Afghanistan might be anticipated.

As NGOs are poised to enter Iraq to provide large-scale humanitarian assistance, it is important that the best interest of the Iraqi population be considered. Iraq is different from those crises in two distinct, and important, ways. First, few NGOs are currently operational in the region. Within Iraq, the list of NGOs currently providing services is small, and the projects they run are small. The NGOs who are not in Iraq now have no recent history in Iraq or, with few exceptions, even in the region. It will take time for them to establish themselves, to do their needs assessments, to bring in appropriate supplies and equipment, and to become fully operational.

Secondly, unlike the places where recent large relief efforts have taken place, Iraq has functioning systems in most sectors. The food distribution sys-
tem, described in detail elsewhere in this report, is a complex but efficient system – a large proportion of the population depends on it. Water, sanitation, and electrical systems, while severely compromised, marginally functional – they need reinforcement and support. The health system is likewise compromised and in need of rehabilitation, but functional. Because most of the population has relatively easy access to existing facilities, and because the health professionals are knowledgeable and competent, the humanitarian intervention should consist of support rather than hands-on service provision. A common sentiment heard within Iraq was expressed by the manager of an international NGO who said:

“This isn’t Afghanistan – there is a functioning government system that, politics aside, makes, for example, the food distribution system the best in the world. The [US Government] should support and reinforce the existing system instead of developing a parallel system of international NGOs who will take forever to mount a parallel infrastructure.”

Within Iraq now, the UN agencies have begun to draw up a preparedness plan under the overall coordination of UNOCHI, the United Nations Office for the Coordination of Humanitarian Assistance in Iraq. Under the proposed management scheme, lead agencies have been assigned to each sector:

- Food assistance – WFP
- Health – WHO (with support from UNICEF)
- Nutrition – UNICEF and WFP
- Water and Sanitation – UNICEF
- Refugees and asylum seekers – UNHCR

Each agency has drawn up a preparedness plan for activities in its sector (OCHA document, Geneva).

Within Iraq, the Iraq Red Crescent Society appears to be the primary coordinating organization. The IRCS has sub-offices in each of the eighteen governorates. The IRCS has been delegated authority by the Government of Iraq, from which it claims total independence, to serve as the ‘agent’ for the international NGOs. An NGO planning to work in Iraq would submit its plan to IRCS for discussion and approval, and IRCS forwards it to the government for final approval. Permits to work in Iraq are granted by the Ministry of Foreign Affairs and can take time to be approved. IRCS also facilitates the work of international NGOs by obtaining travel permits and other necessary documents.

The International Committee of the Red Cross (ICRC) is functionally the lead agency of the Red Cross movement in Iraq, though. ICRC has had a continuous presence in Iraq for twenty years, and plans to stay, as the monitor of international humanitarian law, throughout any conflict period. ICRC has numerous large scale projects, and have pre-positioned significant assets in Iran, Jordan, Kuwait, and Syria. They also have fuel and trucks pre-positioned in Iran.

ICRC is operating as independently as it can in Iraq. It is obviously reluctant to cooperate with the US military humanitarian operations center in Kuwait, with the possible exception of information exchange, but also wary of working closely with the United Nations agencies. As an employee put it, “In Iraq, the UN means sanctions.” In any event, ICRC will find its management and coordination functions difficult to handle – in Iraq, in addition to the usual national Red Cross/Red Crescent societies that provide humanitarian assistance in emergencies, large contingents from Middle Eastern Red Crescent societies are expected to want to play a role in providing post-conflict assistance.

In essence, then, there will be three streams of humanitarian assistance in a post-conflict Iraq: the international NGO community, funded to a large degree, it is assumed, by the US Government, the United Nations family of agencies, and the Red Cross/Red Crescent movement. The potential for duplication of effort, for inappropriate activities, and for a chaotic, rather than a coordinated relief effort, is great. The Research Team, on the basis of its assessment of the current situation and its discussions with relief agency representatives inside and outside of Iraq urges all those involved in providing humanitarian assistance in the post-war period to provide, for the most part, hands-off and supportive, rather than attempting to function as hands-on service providers through unnecessary parallel systems.
A number of studies that address the various scenarios concerning the continuation of the current sanction system or a more escalated conflict were reviewed by CESR's Research Team. See, e.g., Iraq: Consequences, Professor Paul Rogers, Oxford Research Group (October 2002); Portrait of the Current Socio-Economic Development Situation and Implications in Iraq Based on Specified Scenarios, United Nations (Confidential, January 20, 2003); Integrated Humanitarian Contingency Plan for Iraq and Neighboring Countries, United Nations Office for the Coordination of Humanitarian Affairs (Confidential Draft, January 7, 2003); Collateral Damage: the Health and Environmental Costs of War on Iraq, MedAct (2002); Displaced Civilian (DC) Camp Operations, United States Military (November 11, 2002). Our findings, however, are restricted solely to the humanitarian needs of the Iraqi population without regard to these various scenarios.

However, it should be noted that the refugee camp metaphor holds to a point. Although there are strong parallels, as shown later in this introduction and throughout the report, Iraqis are not, of course, refugees. With some exceptions, they have not been uprooted from their homes, forced to flee, or resettled.

It should be noted that under the conditions of the OFFP, the international assistance is entirely paid for by the Government of Iraq, through the sale of oil.

It should be noted that the Iraqi government was offered an earlier version food-for-oil program, but with a $1.6 billion per six months.

Infants separately are allocated baby formula.

Both the quantity and the quality of drinking water influence the incidence of diarrheal diseases. While water the quantity of water available on a per capita basis seems to have increased, there are indications that a large proportion of water samples being tested have unacceptably high coliform counts – see Water section of this report.

The number of measles cases reported by the Ministry of Health (MOH) has fluctuated greatly over the past few years. The overall trend has been downwards, although the 2001 figure represents a substantial increase from the dubious report of 726 cases in 2000. In general, reports of disease incidence are difficult to interpret – the number of measles cases reported by the MOH for the years 1998-2000, for example, is reported differently by UNICEF Iraq (Working with Children to Build a Better Future, 1993) and by WHO (Communicable Disease Profile – Iraq (Draft), 2003). An assessment of the Iraq Health Information System would help assess the accuracy and representativeness of existing health statistics – in the meantime, one should interpret them cautiously.

Save the Children, International Rescue Committee, International Medical Corps, Mercy Corps, and World Vision International

ECHO, the European Community Humanitarian Office, is currently the largest funder of NGO programs in Iraq. They have no representative in Baghdad, however, and the Research Team could not ascertain their plans for post-conflict rehabilitation programs.
Appendix One:
International Law Framework Governing War

This appendix describes the international law applicable to war in Iraq. It includes sections on international humanitarian law governing the means and methods of warfare, and human rights and humanitarian principles governing the treatment of civilians under military occupation.

International Humanitarian Law

International humanitarian law (IHL) governing the conduct of war balances the principles of humanity and military necessity through the rules of distinction and proportionality. IHL aims to minimize, as much as possible, adverse impacts of armed conflict on civilian lives and infrastructure. It places constraints on the conduct of hostilities and mandates that all feasible precautions must be taken in the choice of means and methods of attack so as to protect civilians. These protections encompass both the choice of weapons and the manner in which such weapons are used.

IHL prohibits direct attacks against civilians and civilian infrastructure. The principle of distinction prohibits the planning and execution of attacks that fail to distinguish adequately between military and civilian targets. The corollary principle of proportionality prohibits attacks against legitimate military targets if such attacks have a disproportionate impact upon civilian life or civilian objects.

The Geneva Conventions define proportionality as prohibiting any “attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects... which would be excessive in relation to the concrete and direct military advantage anticipated.” The authoritative legal commentary on IHL sets out guidelines for interpretation: “The [military] advantage concerned should be substantial and relatively close... There can be no question of creating conditions conducive to surrender by means of attacks which incidentally harm the civilian population.”

In accordance with these principles, the following means and methods of attack violate IHL:

- indiscriminate air-strikes on known centers of civilian population, including carpet bombing;
- the use in or near population centers of inherently indiscriminate weapons, such as fuel-air explosives, cluster bombs, multiple rocket launcher systems or nuclear weapons, including B61-11s (tactical nuclear earth-penetrating weapons designed to destroy deep underground targets);
- the targeting of electricity resulting in damage to civilian life support systems, such as water and sanitation facilities and hospitals and health centers; and
- bombing aimed at civilian morale or other non-military purposes, including inducing the overthrow of an existing government.

a. Means and Methods of Warfare

The Pentagon’s proposed strategy for attacking Iraq appears likely to violate the principles described above. Such strategy reportedly involves a large-scale aerial attack focused on Baghdad and its environs in the first phase of war, coupled with ground operations to seize control of the southern and northern oil fields. The “Shock and Awe” strategy, reported by Pentagon officials to be the blueprint for the invasion, calls for launching between 300 to 400 cruise missiles daily at Baghdad during this initial phase. This is more than the entire number of cruise missiles launched during the 43-day Gulf War, and averages to one missile attack on Baghdad every five minutes. If only 1% of these missiles miss their target, three to four cruise missiles may fall on densely populated neighborhoods in the city.

The weapons arsenal reportedly includes battle-tested systems such as B-2 Stealth, B-1B and B-52 bombers, precision-guided missiles, and area-impact...
munitions (AIMS), such as cluster bombs, fuel-air explosives, and multiple-launched rocket systems. New weapons have also been deployed, including “High Power Microwave” (HPM) weapons designed for low altitude use as non-lethal weapons to disperse groups of people, and at higher altitudes to destroy electronics-based devices such as computers, communications equipment and power plants. The United States has also not ruled out the use of nuclear weapons “for attacking Iraqi facilities located so deep underground that they might be impervious to conventional explosives” and “thwarting Iraq’s use of weapons of mass destruction”.

Initial air attacks will reportedly target Iraq’s national electricity grid. Evidence from the 1991 Gulf War suggests that attacking electricity will achieve negligible military gains while causing tremendous civilian suffering due to the consequent failure of civilian systems that depend on electricity, in contravention of the principle of proportionality. Then General Colin Powell, in a press briefing on January 23, 1991, acknowledged that Iraq’s military, unlike its civilian population, did not depend on the main electrical grid for power supply: “They have redundant systems, resilient systems, they have work-arounds, they have alternatives, and they are still able to command their forces ... on generator power.” Moreover, the U.S.-led coalition did not attack the Kuwait’s electrical system despite its supplying the Iraqi army with power they needed to maintain their illegal occupation.

U.S. authorities have openly declared that they intend to use illegal means and methods of warfare in the potential conflict with Iraq. These include the use of indiscriminate weapons in urban areas and the targeting of electricity despite the predictable humanitarian crisis that would ensue therefrom. If actually used, these tactics will “breach intransgressible rules of IHL and in particular the rules on discrimination.”

b. Accountability for Violations
Violations of the IHL constitute international crimes for which there is individual responsibility. The US has long participated in international efforts to ensure the accountability of those persons responsible for the commission of such crimes, including the establishment of the Nuremberg Tribunal and more recently, the Special Court for Sierra Leone. In spite of its opposition to the International Criminal Court, the US has repeatedly and publicly reaffirmed its commitment to international justice and the need to prosecute those persons found responsible for the most serious international crimes, including crimes against humanity and war crimes.

War crimes also fall within customary international law for which there is universal jurisdiction. All states, including the U.S., have a legal obligation either to prosecute individuals within their jurisdiction or to extradite them to a country that will prosecute them. In recognition of this obligation, Congress enacted the War Crimes Act, under which civilian courts are authorized to try either service members or civilians for certain violations of the laws of war, including grave breaches of the Geneva Conventions.

Human rights and civil rights groups have committed to ensuring that any military acts that are alleged to violate IHL will be thoroughly investigated and prosecuted under the jurisdiction of the ICC or the War Crimes Act. Public Interest Lawyers, a U.K. law firm, and the Campaign for Nuclear Disarmament recently concluded that senior members of the U.K. government, notwithstanding any liability of senior members of the armed forces, can be held responsible individually for breaches of the laws of war. These groups have vowed to investigate potential war crimes and prosecuted responsible officials accordingly. Similarly in the U.S., the Center for Constitutional Rights, joined by CESR and over 100 concerned organizations and international lawyers, has issued a public letter warning U.S. officials that they may face similar prosecutions for any alleged acts that violate IHL.

Human Rights and the Right to Humanitarian Access
To the extent that the military forces of the United States and any other governments exercise effective control over any territory in Iraq, they will be subject
to international law concerning treatment of the population in such occupied territory. Key among these are the human rights to food, health and life, as well as the right of humanitarian organizations to independent access to affected populations.

**Rights to Food, Health and Life**

The human right to food is recognized and protected in a wide range of both declaratory and legally binding international instruments, including the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, the Convention on the Rights of the Child, and the Universal Declaration on the Eradication of Hunger and Malnutrition. As a result, all States are obliged to progressively implement the right to food and provide guarantees against hunger and starvation, even in times of emergency, by ensuring the accessibility and "availability of food in quantity and quality sufficient to satisfy the dietary needs of individuals, free from adverse substances and acceptable within a given culture." The legal obligation carries several duties. The most basic duty requires states to refrain from any action that interferes with people's access to food - in other words, to ensure that their own policies and practices do not cause or contribute to malnutrition, hunger and starvation.

Major violations of the right to food - as may occur in Iraq in the event of a military attack - inevitably result in violations of the rights to health and to life, the most fundamental of human rights. The Human Rights Committee of the UN has established that:

The expression "inherent right to life" cannot properly be understood in a restrictive manner, and the protection of this right requires that States... take all possible measures to reduce infant mortality and to increase life expectancy, especially in adopting measures to eliminate malnutrition and epidemics.

The United States and any other parties to an attack on Iraq have a clear obligation to respect the right to food. Actions that cause malnutrition, hunger or starvation by interfering, directly or indirectly, with the food distribution system in Iraq, upon which much of the population currently depends for survival, will violate the right to food. The United States and any other parties to an attack on Iraq will bear full legal responsibility for such violations.

**b. Right to Humanitarian Access**

Humanitarian law codified in the Geneva Conventions and their Protocols provides additional protections for the right to food for populations in war. Such protections - and the corresponding legal obligations of warring parties - cover both the right of affected civilians to receive aid and the right of humanitarian agencies to deliver it.

Warring parties have an affirmative “duty of ensuring the food and medical supplies of the population” and allowing humanitarian aid organizations to pursue their activities “in accordance with Red Cross principles”. The founding principle of the Red Cross is that aid must be delivered in an impartial and neutral manner exclusively for humanitarian purposes.

The Fourth Geneva Convention also requires a state to allow aid agencies to transport foodstuffs and other essentials to the civilians of a state even if it is in conflict with that state. Protocol I specifically obligates all parties to an international armed conflict to facilitate humanitarian operations.

International agencies are cognizant of the fact that they may be compelled to “interact” with military authorities that may occupy territories in Iraq, regardless of whether or not military action is authorized by the UN. They have already complained of policies by the U.S. Department of Defense to control and direct the delivery of assistance to civilian populations, rather than to allow free and unimpeded access to humanitarian organizations.

**c. Right of Humanitarian Independence**

The well-established legal basis for humanitarian operations is complete independence from all parties
to a conflict. The UN General Assembly has stated: “Humanitarian assistance must be provided in accordance with the principles of humanity, neutrality and impartiality.” To ensure effective relief action, the ICRC calls upon states:

To recognize the need for the [Red Cross] Movement to maintain a clear separation between its humanitarian action, on the one hand, and actions of a political, military or economic nature carried out by governments, intergovernmental bodies and other agencies during humanitarian crises, on the other hand, bearing in mind the need for the [Red Cross] to maintain, in its humanitarian work, its independence, impartiality and neutrality. 38

Acknowledging that even a perception of bias endangers the safety of aid personnel and compromises their effectiveness, the ICRC rejects any direct involvement of military forces in relief operations, even armed escorts. 39 Indeed, the seminal principle of humanitarian relief is that:

Military operations should be clearly distinct from humanitarian activities. Particularly at the height of hostilities, military forces should not be directly involved in humanitarian action, as this would or could, in the minds of the authorities and the population, associate humanitarian organizations with political or military objectives that go beyond humanitarian concerns. 40

The impact of a renewed attack on Iraq will have a significantly more devastating impact on the civilian population than the 1991 Gulf War and ensuing sanctions. The broader military imperative - regime change - means that a new war will be fought with much greater intensity. Analysts expect a far more extensive aerial and ground bombardment campaign than that in 1991 and the use of much more powerful and deadly weapons. The diminished state of water and sewage treatment and the already fragile electrical infrastructure means that water, sewage and electrical services will be unable to recover from a military attack, even if equal in power to the 1991 attack, at anywhere near the 1991 recovery levels. The existing weakness of the public health system will make it far more ill-equipped to deal with any increase in emergency medical care. The results could be a humanitarian catastrophe in violations of established laws governing warfare.

2 Proportionality is based on military necessity; indirect harms to civilians are justified on the basis of the extreme need to counter an immediate military threat. The justification is not extended to non-immediate threats. See e.g. Bothe, Michael, Partsch & Solf, New Rules for Victims of Armed Conflict (1982), at 360-66.
4 Ibid, Art. 54.
8 Human Rights Watch, Needless Deaths: Civilian Casualties in the Gulf War (1991), at p. 188.
12 CCR Letter, pg. 6.
13 CCR Letter and CND Letter.
14 Id.
The right to food also includes access to safe drinking water, as water, like food, is essential for the survival of human beings and indispensable to agriculture, a fundamental element of the right to food.


“The obligation to respect existing access to adequate food requires State parties not to take any measures that result in preventing such access.” ESCR Committee, General Comment 12, para. 15.

“The right to life enunciated in Article 6 of the Covenant has been dealt with in all State reports. It is the supreme right from which no derogation is permitted even in time of public emergency which threatens the life of the nation.” CCPR General Comment 6, The Right to Life.

Ibid.


Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), and Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), have been ratified by the vast majority of states. Provisions guaranteeing access to humanitarian aid are considered part of customary international law and are therefore binding on all states regardless of ratification. http://

www.icrc.org/icrceng.nsf/5845147/e46836989c1256170044a4f/26674b4e54f4953341256237003a3ae070penDocument.

4th Geneva Convention, Articles 23, 30, 38, 59 and 63, and Protocol I, Articles 17 and 81.

Id., Articles 55 and 63.

See Resolution 4(g)(2) of the 26th International Conference of the Red Cross and the Red Crescent. See also A/RES/43/131.

4th Geneva Convention, Article 23.

Geneva Conventions, Additional Protocol I, Article 81.


Ibid., para. 54


Resolution 4(g)(2) of the 26th International Conference of the Red Cross and Red Crescent.
