

Lessons from the last Gulf War

The human and environmental impacts of the Gulf War were tremendous. Approximately 100,000 Iraqi soldiers and 40,000 to 80,000 Iraqi civilians were killed as a direct result of the war, and those who survived the initial attack have faced untold hardship. Electricity, water and sanitation systems were destroyed; food storage and distribution systems broke down. For many of the survivors, this meant a life of severe malnutrition, disease, and early death.

Between six and eight million of barrels of oil were deliberately poured into the Persian Gulf, causing the world's largest oil spill. Fires from 600 deliberately damaged Kuwaiti oil wells created a blanket of soot, gases and chemicals, which impacted terrestrial and marine systems over the Gulf area. This led to immediate respiratory problems in local populations and generated serious long-term risks of birth defects and cancer in exposed people.

Bays and mudflats were clogged with oil, disrupting the flora and fauna in these vital areas. Tens of thousands of birds are thought to have died as a direct result of the war and many others suffered the chronic effects of oiling. The feeding grounds for over one hundred thousand wading and migratory birds were destroyed and some populations have been slow to recover. Important shrimp fisheries declined immediately after the war to around one percent of their pre-war level.

The land itself suffered physically and biologically from the military assault. Fuel-air bombs pulverized the topsoil and destroyed the vegetation. Tanks and tracked vehicles compressed desert soil, curtailing subsequent vegetation re-growth. Coalition military forces left large amounts of refuse, toxic materials and millions of gallons of sewage in sandpits scattered throughout the area.

The Current Crisis in Iraq

Most of the health, water, sanitation and power systems in Iraq, destroyed during the last Gulf war, remain unrestored. Food supplies depend almost entirely on rationing, which is vulnerable to civil disorder and administrative breakdown. A major drought that has affected Iraq for the past three years has only worsened the situation. The primary source of water for Iraqis, the Tigris River, is polluted with sewage, and most sewage treatment plants are not functioning. Water pumping stations and tanker trucks are in disrepair. The power supply is still severely crippled. Sanctions imposed by the UN since 1990 make it extremely difficult for Iraq to obtain parts to repair the damage.

As a result, millions of Iraqis are malnourished. Especially affected are children: in the past ten years the child mortality rate has soared by 160 percent, more than any other country in the world.

Likely consequences of a new war

The impact of a war on Iraq will depend entirely upon the targets that are selected and the weapons used. If industrial facilities are targeted then chemical contamination can be expected due to spillage and/or burning of chemical stockpiles and stores. Subsequently, as these plants are put back into operation, environmental standards will undoubtedly be lower leading to chronic pollution problems.

If producing oilfields are targeted or deliberately sabotaged, it would result in fierce fires, smoke production, oil spillage on land and related impacts. The soot from the Kuwait fires during the last war caused widespread impacts, including a fall in seawater temperature. This, in turn, had an impact on fisheries and sensitive ecosystems. Similar impacts would be likely in the case of a new conflict.

If water infrastructure, sanitation and sewage treatment facilities are destroyed, it will have microbiological impacts on marine resources and cause health impacts on civilians in the form of increased levels of infections and parasite infestation.

It is possible that pollution from the deliberate release or spillage of oil may occur on the same scale as during the 1991 war. If this happens, similar impacts can be expected, but of a more severe nature due to the fragility of the slowly recovering marine ecosystems after the last conflict.

Bombing of nuclear installations and/or the use of nuclear weapons on the battlefield would undoubtedly cause widespread radioactive contamination. This in turn would further compromise the already highly vulnerable food supply chain within the country and would probably lead to serious radioactive contamination over the region as a whole. Damage caused by chemical and biological weapons would depend on the type of weapons used and the targets selected. Chemical weapons have the power to cause very high mortality rates in humans, domestic animals and wildlife in targeted areas. The longer lasting health effects on those not immediately killed and the ensuing exit from the areas concerned would probably lead to a complete breakdown of society in impacted areas. The same would apply if biological weapons, such as anthrax, were used.

Further Reading

* The Gulf War:

Price, A.R.G., Robinson, J.H., [editors] (1993) The 1991 Gulf War: Coastal and Marine Environmental Consequences. Marine Pollution Bulletin 27.380pp

Gulf Environment Briefing: A Greenpeace report concerning possible environmental threats posed by the Gulf War.

On Impact: Modern Warfare and the Environment, A Case Study of the

Gulf War: A Greenpeace study prepared for a "Fifth Geneva" Convention on the Protection of the Environment in Time of Armed Conflict

* Iraq since the War:

Iraq: On the Brink of Disaster: A report by Oxfam on current conditions in Iraq.

Our Common Responsibility: The Impact of a New War on Iraqi Children: Oxfam report describing the status and vulnerabilities of children in Iraq.

* War with Iraq: Costs, Consequences and Alternatives: An analysis by the American Academy of Sciences that proposes alternatives to war.