The allied military campaign against Iraq was, by all standard measures, very successful. The allies succeeded in driving Iraq from Kuwait and severely crippled Saddam Hussein's military machine. The world will certainly breathe easier now that his ability to produce of nuclear (and presumably chemical and biological) weapons appears to have been neutralized. However, we paid dearly for success.

Of course, there are many obvious costs including the loss of allied and Iraqi lives, destruction of homes and other buildings and the costs of weapons. It is said that the allies spent half a billion dollars per day on bombs alone. However, few people have considered the environmental costs of the war, and these appear staggering.

The Gulf war was probably the single largest episode of anthropogenic pollution in the earth's history. The scars of war will long be visible in the Middle East. Deserts are fragile ecosystems. It's likely that the scars from tank treads and bomb craters will never disappear; they will always serve as a reminder of Saddam Hussein's aggression. The oil that was accidentally and intentionally spilled into the Gulf will likely ruin Persian Gulf fisheries and aquatic life for years. Oil fires are still raging and they are releasing tons of carbon and soot into the atmosphere. The long term effects of these fires remain to be seen. Carl Sagan has predicted the soot and ash may lead to a "petroleum winter". Although few accept his claims, it would not be surprising if the Near East suffered a mild "petroleum autumn" with resulting crop failures from the polluted "black" rains.

Environmental destruction caused by war is not unique to the Gulf crisis.
General Sherman's scorched earth policy during the Civil War and the use of the defoliant, Agent Orange, during the Vietnam War are two examples of past wars that had particularly devastating ecological impacts.

Even amidst the killing and destruction, war has rules. Modern international law prohibits the destruction of art and objects of historical, cultural, and religious value. There is also a long history of sanctions against the wanton destruction of the environment. For example, in Deuteronomy (20:19-20) we read "When you besiege a city for a long time, making war against it in order to take it, you shall not destroy its trees by wielding an axe against them; for you may eat of them, but you shall not cut them down...Only the trees which you know are not trees for food you may destroy and cut down..." More recently, Protocol (I) Additional to the Geneva Convention states "Care should be taken in warfare to protect the natural environment against widespread, long-term and severe damage" and the Enmod Convention of 1977 prohibits "military or other hostile use of environmental modification techniques having widespread, long-lasting or severe effects..." Unfortunately, as Arthur Westing points out, "Ecological considerations have ...played little part in civil and military affairs".

Merrit P. Drucker, a major in the U.S. Army and philosophy instructor at West Point argues that it is a commander's responsibility to "protect noncombatants and to protect an environment that is the inherently valuable heritage of mankind. Commanders must assume some risk to protect the environment. I conclude that we must stop not only the environmental damage caused by war, but also war itself if we are to remain a viable species".

If Budget Director Richard Darman's comment in May 1990 that "Americans did not fight and win the wars of the 20th century to make the world safe for green vegetables" is any indication, it seems unlikely that environmental concerns weighed very heavily on the administration's decision to wage war with
Iraq. Considering that analysts accurately predicted the environmental ramifications of war in an environmentally-sensitive area against a crazed despot who doesn't play by the rules, it's clear that the administration ignored the warnings or were willing to gamble that the environmental costs would be minimal. It's surprising that the self-proclaimed "environmental president" was willing to take such a risk. A "real" environmental president would have exhausted all diplomatic options, including giving sanctions time, before launching war.

Commander Bush won the battle against Iraq, but failed to safeguard the environment. Let's pray that the final environmental costs won't be too great. As Drucker says, "...we can no longer tolerate the damage done by war". The environmental president must know this.

Of his presidential campaign, George Bush has frequently told us to read his lips that he was the "environmental candidate". Although his lips say one thing, his actions, as the old saying goes, have spoken louder. As we discussed in our previous column, his energy plan shows little support of energy conservation measures. President Bush has dragged his feet on global warming. The United States and Britian were one of only a few developed countries that failed to ratify a recent treaty that called for the reduction of carbon dioxide emissions. The administration has also consistently vetoed family planning efforts in developing nations. To be fair, he did put a moratorium on ocean oil exploration in sensitive coastal areas. And, although his administration should be congratulated for declaring the spotted owl a threatened species, the administration put off protecting the bird to minimize disruption to the logging industry.

President Bush's policy is draw a balance between economic and environmental concerns. However, the scale rarely seems to weigh in favor of the environment prompting many to question the true motivation of the
"environmental president". For example, last July the headline of a Star Tribune editorial last July read, "The environmentalist president, unmasked". As Lester Brown, Christopher flavin and Sandara Postel point out, "if we fail to make tough choices now, the choices will simply get tougher and the needed responses more draconian".