

NEWSLETTER

EDITORIAL

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WAR AND POLLUTION: THE SILENT CASUALTY OF CONFLICT

War is one of the fastest and most destructive forms of pollution. While it is usually measured in human terms—lives lost, families displaced, and economies shattered—its environmental cost is equally severe but often ignored. Pollution from war is slow, cumulative, and frequently outlives the conflict itself, leaving behind poisoned ecosystems and long-term health impacts.

Four Direct Pathways of War-Related Pollution

1. Air Pollution

Bombing, missile strikes, and deliberate fires release large quantities of carbon dioxide (CO₂), sulfur dioxide (SO₂), nitrogen oxides (NO_x), particulate matter (PM_{2.5}), and black carbon. A major example is the Gulf War, when over 600 Kuwaiti oil wells were set on fire. These fires burned for months, releasing vast quantities of oil, gas, and smoke that spread across large regions, severely degrading air quality and causing black rain in surrounding countries.

2. Water Pollution

War often destroys critical water infrastructure leading to untreated sewage, industrial waste, and heavy metals entering rivers and groundwater. During the Syrian conflict, more than half of water treatment facilities were damaged, contributing to disease outbreaks like cholera. Oil spills and wartime maritime damage in the Persian Gulf caused long-term marine ecosystem destruction. Explosive residues such as TNT and perchlorates can also contaminate groundwater for decades.

3. Soil and Land Pollution

Soil contamination is one of the most persistent

impacts of war. An estimated 110 million landmines remain buried worldwide, making land unsafe for farming and habitation. Explosions leave behind heavy metals and toxic residues. Depleted uranium (DU) used in some munitions can also contaminate soil with long-lasting toxic effects. In Iraq, studies have reported increased health issues in heavily affected regions, though scientific debate continues on causation. Recent conflicts, such as in Gaza, have generated millions of tonnes of debris containing asbestos, concrete dust, and hazardous materials.

4. Ecosystem and Biological Damage

War disrupts ecosystems through habitat destruction, noise, deforestation, and wildlife loss. During the Vietnam War, nearly 20% of South Vietnam's forests were destroyed through bombing and chemical defoliants. Naval sonar and explosions have been linked to marine mammal strandings. Conflict zones also see sharp declines in wildlife due to habitat loss and increased poaching, often causing long-term ecological imbalance.

In addition, the Arctic region is becoming environmentally vulnerable due to melting ice, increasing military presence, and shipping routes. This raises risks of oil spills and black carbon emissions, which accelerate climate change and further destabilize fragile ecosystems.

Case Studies

Vietnam War (1961–1975)

The US Operation Ranch Hand used herbicides such as Agent Orange to remove forest cover. Around 20% of forests were destroyed, mangrove ecosystems collapsed, and toxic

toxins entered soil and food chains. Millions continue to face long-term health impacts. This conflict has introduced the concept of “ecocide,” meaning large-scale environmental destruction.

Gulf War (1990–1991)

The burning of oil wells and massive oil spills created one of the worst environmental disasters caused by war. Air pollution, marine contamination, and coastline damage lasted for years, and cleanup costs reached billions of dollars.

Russia–Ukraine War (2022–Present)

This conflict has become one of Europe’s most serious environmental crises in recent decades. Large areas are contaminated with landmines, unexploded ordnance, and chemical residues. Soil degradation has reduced agricultural productivity, threatening global food security due to Ukraine’s role as a major grain exporter.

Indian Context

In India and surrounding regions, environmental damage is also visible in conflict zones. The Siachen Glacier, the world’s highest battlefield, has accumulated significant non-biodegradable waste due to military activity in extreme conditions. In the Northeast, insurgency, deforestation, and explosives have damaged forest ecosystems. Along the Line of Control, shelling has triggered forest fires and increased soil erosion and landslide risks in fragile Himalayan terrain.

Long-Term Consequences

War pollution acts as a “delayed killer.” Exposure to heavy metals, asbestos, and explosive residues can cause cancers, respiratory diseases, neurological disorders, and birth defects years after exposure. Children are especially vulnerable due to developing bodies and longer lifetime exposure.

War also contributes significantly to climate change. Military operations, fuel use, fires, and reconstruction generate large greenhouse gas emissions.

The economic burden is also severe. Environmental cleanup and mine clearance cost billions of dollars globally, leaving many developing countries unable to restore damaged land, resulting in long-term ecological and economic losses.

Legal and Technological Dimensions

International humanitarian law, including the Geneva Conventions, prohibits widespread, long-term, and severe environmental damage during warfare. However, enforcement remains limited. The concept of “ecocide” is gaining global attention as a potential international crime to strengthen accountability for environmental destruction during conflict.

Modern warfare increases environmental damage further. Advanced weapons, drones, and bunker-buster bombs release toxic metals and explosive residues into soil and water. Electronic waste from destroyed military systems is often burned or dumped, releasing additional pollutants. Even precision weapons leave behind chemical contaminants.

India’s Positive Steps

India has taken several steps to reduce the environmental impact of military operations. These include tree plantation drives near border areas, bamboo cultivation in the Northeast to prevent soil erosion, solar-powered energy systems in remote military posts, and waste management programs in Siachen Glacier to remove accumulated waste through airlifting and recycling.

Conclusion

History remembers wars through treaties and battles, but the planet remembers them through scars in soil, water, and air. Unlike industrial pollution, war pollution is sudden, intense, and unregulated, leaving behind a legacy that affects generations. Addressing this requires stronger international environmental laws, dedicated funding for ecological restoration, and military strategies that account for environmental costs.

War does not end when ceasefire is signed. Pollution continues for generations. We rarely count “environmental deaths” – children born with defects, farmers losing land, species going extinct. Climate change is a slow war on planet. A nation cannot be strong if its soil is toxic, water is poisoned, and air is unbreathable. The next chapter of peacebuilding must be “green peacebuilding”. “War is the worst environmental disaster” – UNEP Executive Director.

Green peacebuilding is not idealism—it is survival.

Dr. A. K. Dewan, Director - Surgical Oncology

SOFT TISSUE SARCOMA SUMMIT 2026

Rajiv Gandhi Cancer Institute & Research Centre (RGCIRC), Rohini, New Delhi, successfully organized the Soft Tissue Sarcoma Summit 2026 on 4th & 5th July 2026 at Hotel Crowne Plaza, Rohini, New Delhi, in association with IMSOS and the Oncology Forum. The theme of the summit was "Leading the Fight Against Soft Tissue Sarcomas."



The programme featured a comprehensive academic agenda comprising International Orations, keynote lectures, case-based interactive panel discussions, debates, and a postgraduate (PG) quiz. A total of 136 distinguished faculty members from India and abroad participated in the summit, sharing their expertise and latest advances in the multidisciplinary management of soft tissue sarcomas.

The First International Oration (Medical Oncology) was delivered by Prof. Neeta Somaiah (USA), while the Second International Oration (Surgical Oncology) was delivered by Prof. Ilkyu Han (South Korea) on 5th July 2026.

The summit was formally inaugurated on the morning of 4th July 2026 in the esteemed presence of:

- **Dr. S. K. Rawal** - Medical Director, RGCIRC, Delhi
- **Prof. Ajay Puri** - Head of Department, Surgical Oncology, Tata Memorial Hospital, Mumbai
- **Dr. A. K. Dewan** - Principal Director, Surgical Oncology, RGCIRC, Delhi
- **Prof. Neeta Somaiah** - Professor and Department Chair of Sarcoma Medical Oncology, The University of Texas MD Anderson Cancer Center, Houston, Texas, U.S.A
- **Prof. Ilkyu Han** - Professor, Department of Orthopaedic Surgery, Seoul National University Hospital, Seoul, South Korea
- **Dr. Vineet Talwar** - Director, Dept. of Medical Oncology, RGCIRC, Delhi
- **Dr. Sunil Pasricha** - Senior Consultant, Histopathology, RGCIRC, Delhi
- **Dr. Ullas Batra** - Co-Director - Medical Oncology & Chief of Thoracic Medical Oncology, RGCIRC, Delhi
- **Dr. Kundan Singh Chufal** - Senior Consultant & Unit Head, Radiation Oncology, RGCIRC, Delhi
- **Dr. Himanshu Rohela** - Consultant Orthopaedic & Musculoskeletal Oncology, RGCIRC, Delhi



The inaugural ceremony marked the commencement of two days of intensive academic deliberations, scientific exchange, and collaborative discussions dedicated to advancing the diagnosis and management of soft tissue sarcomas.

The summit received an enthusiastic response from the oncology community, with a total of 69 delegates registered, including on-site registrations. The delegates represented various specialties involved in the multidisciplinary management of soft tissue sarcomas.

The closing ceremony was held on 5th July 2026, marking the successful conclusion of the Soft Tissue Sarcoma Summit 2026. The Organizing Committee expressed its sincere gratitude to the faculty, delegates, sponsors, industry partners, and volunteers for their invaluable contributions, which made the summit a resounding academic success.



CME WITH SOUTH DELHI PEDIATRICS STUDY GROUP & ACADEMY OF PEDIATRICS



RGCIRC (Rajiv Gandhi Cancer Institute & Research Centre) in association with South Delhi Pediatrics Study Group & Academy of Pediatrics organized an Oncology CME on Thursday, 23rd July 2026 at The Panchshila Rendezvous, Malviya Nagar, New Delhi.

The session included insightful lecture by Dr. Gauri Kapoor Medical Director - RGCIRC, Niti Bagh & Director - Pediatric Hematology & Oncology on **The ALL Story: How Survival Improved from Less Than 10% to More Than 90%.**

CME WITH IMA HALDWANI



RGCIRC organized an Oncology CME in association with the Indian Medical Association (IMA), Haldwani, Uttarakhand on Saturday, 25th July 2026 at Fortune Walkway Mall, Haldwani, Uttarakhand.

Dr. Kundan Singh Chufal, Unit Head & Sr. Consultant - Radiation Oncology, delivered an insightful lecture on **Recent Advances in Radiation Oncology: from Cure to Quality of Life** and Dr. Amitabh Singh, Sr. Consultant - GenitoUro-Oncology Unit-II spoke on **Improving Functional Outcomes & Quality of Life in Uro Oncology.**



WHERE CARE BECAME FAMILY: A PARENT'S STORY OF TRUST, TREATMENT, AND HEALING FAR FROM HOME - ALEX KER ONYANGO

At just ten months old, our son, Alex, had recurring ear infections, which led to a diagnosis we never imagined leukemia. What we believed would be a routine counselling session became the moment our world changed forever.

Our son was initially diagnosed in Kenya. Given the urgency and complexity of infant leukemia, we made the difficult decision to seek treatment in India. We began treatment in November 2023. As parents of an infant with cancer, we immersed ourselves in understanding infant B-cell leukemia so that we could make informed decisions for our child.

While the prognosis for infants can be challenging, advances in research and treatment gave us hope. After induction therapy, our son became MRD negative, which was deeply encouraging.

Throughout the course of treatment, the medical team remained updated on emerging

therapies, including immunotherapy options such as blinatumomab, ensuring that our child received evidence based and forward-thinking care.

Message of Gratitude

We extend our deepest thanks to Dr. Gauri Kapoor, Dr. Sandeep, and Dr. Payal, as well as to the counsellors, nurses, and support staff at RGCIRC, Rajiv Gandhi Cancer Institute & Research Centre. Your expertise, compassion, and commitment gave our child the best possible chance and gave us hope when we needed it most.

To families facing a similar journey, we wish you strength, grace, and a medical team as dedicated as the one we were blessed to have.



Dr. D. S. Gangwar (CEO)
Dr. S. K. Rawal (Medical Director)
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Dr. Gauri Kapoor
Dr. Vineet Talwar
Dr. Anurag Mehta
Dr. Rajiv Chawla
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Dr. Pankaj Goyal

Dr. Amitabh Singh
Dr. Renuka Gupta
Dr. Gurudutt Gupta
Dr. Neelam Sachdeva
Dr. Narender Tejawani
Dr. Amardeep Pathak
Dr. Garima Daga
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