

How "Chemicals Everywhere" Drive Climate Change

From: Dika-Moka Youth Development Forum, info@dika-moka.com

To: Centre for Environmental Rights, Department of Forestry, Fisheries and the Environment, Department of Water and Sanitation, National Prosecuting Authority, Eskom, Sasol, Engen, BP South Africa, Shell South Africa, TotalEnergies, Astron Energy, Anglo American, Sibanye Stillwater, Harmony Gold, Glencore, Exxaro, South32, African Rainbow Minerals, Impala Platinum, Seriti Resources, Gold Fields, Northam Platinum, Assmang, ArcelorMittal South Africa, Sappi, Mondi Group, Nampak, Tiger Brands, Unilever South Africa, Procter & Gamble South Africa, Reckitt Benckiser South Africa, Aspen Pharmacare, Cipla South Africa, Adcock Ingram, AECI, Omnia, BASF South Africa, Safripol, Emfuleni Local Municipality, City of Johannesburg, City of Tshwane, Buffalo City Metropolitan Development Agency, City of Cape Town, United Nations Environment Programme, World Health Organization, G20 India, Climate Data Steering Committee, G7 Canada, BRICS Russia, FICCI, SA BRICS Business Council, European Commission, G20 Interfaith Forum
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Dear Companies and Leaders,

Your operations are directly responsible for poisoning South Africa's environment and its people, contributing to climate change and societal breakdown. This is an indictment backed by clear evidence and legal consequences under South African law.

The Chemicals and Pollutants You Release

- Heavy Metals: Lead (Pb), Mercury (Hg), Cadmium (Cd), Arsenic (As), Chromium (Cr), Nickel (Ni), Zinc (Zn), Copper (Cu), Manganese (Mn), Iron (Fe), Uranium (U).
 - Source: Mining (gold, coal, platinum), smelters, industrial discharges, battery manufacturing, chemical plants, coal ash.
 - Impact: Found in rivers, groundwater, sediments, and seafood.
- Persistent Organic Pollutants (POPs): Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs), Dioxins, DDT, Per- and Polyfluoroalkyl Substances (PFAS).
 - Source: Combustion, petroleum industries, electrical equipment, chemical manufacturing, pesticides.
 - Impact: Persistent in air, water, soil, marine life, and human tissue.
- Industrial Chemicals: Chlorinated solvents, Phenolic compounds, Phthalate Esters, Volatile Organic Compounds (VOCs), Acids, Alkalis, Cyanide.
 - Source: Chemical manufacturing, refining, tanning, electroplating, industrial cleaning, gold mining.
 - Impact: Toxic to aquatic life, soil, groundwater, and air.

- Air Pollutants: Sulfur Dioxide (SO₂), Nitrogen Oxides (NO_x), Particulate Matter (PM_{2.5}, PM₁₀), Ozone (O₃), Carbon Monoxide (CO).
 - Source: Coal-fired power stations (Eskom), petrochemicals (Sasol), smelters (Arcelor-Mittal).
 - Impact: Widespread in Highveld, Vaal Triangle, South Durban Basin.
- Nutrients: Nitrates, Ammonia, Phosphates.
 - Source: Sewage, agricultural runoff, food processing.
 - Impact: Eutrophication, algal blooms, dead zones in rivers and coastal waters.
- Pathogens: E. coli, Salmonella, Shigella, Cholera, Typhoid, Hepatitis A, Rotaviruses, Noroviruses, Giardia, Cryptosporidium.
 - Source: Raw sewage from failing municipal wastewater treatment plants.
 - Impact: Contamination of rivers, dams, and beaches.
- Pharmaceuticals & Personal Care Products (PPCPs): Antibiotics, Hormones, Pain relievers, Antidepressants, Triclosan, UV filters.
 - Source: Human/animal excretion, manufacturing effluent, improper disposal.
 - Impact: Endocrine disruption, antibiotic resistance in aquatic life.
- Microplastics: Fragments, fibres, microbeads (polyethylene, polypropylene, PET, PVC).
 - Source: Plastic breakdown, synthetic textiles, cosmetics.
 - Impact: Ingested by aquatic organisms, potential food chain transfer.

Damages and Diseases Caused

Your pollution directly causes:

- Respiratory Diseases: Asthma, Bronchitis, COPD, Lung cancer, Pneumonia, Tuberculosis exacerbation.
- Cancers: Lung, skin, bladder, kidney, liver, lymphatic, prostate.
- Neurological Disorders: Brain damage, tremors, cognitive dysfunction, developmental delays.
- Gastrointestinal Illnesses: Cholera, Typhoid, Dysentery, E. coli infections.
- Cardiovascular Diseases: Heart disease, Stroke, Hypertension.
- Kidney & Liver Damage: Caused by heavy metals, industrial chemicals.
- Reproductive & Developmental Harm: Infertility, birth defects, sexual abnormalities.
- Skin Infections: From contaminated water exposure.
- Ecosystem Collapse: Eutrophication, fish die-offs, habitat destruction, soil degradation.

Environmental Criminal Law

Your actions violate:

- National Environmental Management Act (NEMA): Unlawful pollution or unauthorized activities carry fines up to R10 million and/or 10 years imprisonment.
- National Water Act: Polluting water resources is a criminal offense.
- Air Quality Act: Exceeding emission limits is prosecutable.
- Waste Act: Improper hazardous waste disposal, including acid mine drainage, is a crime.

How "Chemicals Everywhere" Drive Climate Change

- Direct Emissions:
 - Fossil Fuel Dependency: Chemical industry relies on oil, gas, and coal, releasing CO₂, methane, and nitrous oxide.
 - Super Greenhouse Gases: HFCs, PFCs, SF₆ are thousands of times more potent than CO₂.
- Indirect Contributions:
 - Air Pollution: VOCs form ozone and black carbon, short-lived climate warmers.
 - Weakening Carbon Sinks: Chemical runoff reduces ocean and soil CO₂ absorption.
 - Waste Management: Plastic and chemical waste releases methane in landfills.
- Dangerous Feedback Loops:
 - Increased Toxicity: Warmer temperatures make chemicals more volatile.
 - Reliance on Chemicals: Climate impacts increase pesticide use, perpetuating pollution.

Catastrophic Consequences for South Africa

- Infrastructure Collapse: Degraded water, land, and air disrupt natural systems.
- Widespread Disease: Sewage and air pollution cause cholera, typhoid, asthma, and cancer.
- Economic Devastation: Healthcare costs (R960 billion/year from air pollution), reduced agricultural productivity, and remediation expenses.
- Blackouts of Natural Services: Dead rivers, closed beaches, loss of necessities.
- Human Extinction Risk: Chemical emissions and climate crisis threaten societal collapse.

The Destructive Cycle: Environmental Criminality

- Environmental Racism: Black and Indigenous communities bear disproportionate pollution impacts.
- Hypocrisy of "Development": Western companies profit while causing local devastation.
- Self-Destructive Growth: Profit-driven ecological collapse harms all economies.

Demands for Immediate Action

- Phase Out Polluting Technologies: Commit to rapid phase-out of coal-fired power and toxic chemical processes, investing in clean, renewable alternatives.
- Transparency & Accountability: Disclose all emissions, waste, and incidents publicly, cease lobbying against regulations, and support independent oversight.

Your current path leads to ecological and societal collapse. Immediate transformation is essential for survival.

Sincerely,
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