Children are in a dynamic state of growth with cells multiplying fast and organ systems developing at a rapid rate.

- Children breathe more air and consume more food and water in proportion to their weight.
- Their central nervous system, immune, digestive and reproductive systems are more vulnerable than those of adults. Exposure to certain environmental toxins can lead to irreversible damage, and to diseases during adulthood.
- Children are more exposed to unhealthy conditions and to dangerous substances because they live their lives closer to the ground and, especially in the early years, they are frequently exposed through hand-to-mouth activities.

**Children are among the most vulnerable to environmental threats**
People need clean water, and they need enough of it. The amount of water available is as critical as its quality for maintaining hygiene practices. Contaminated water causes many life-threatening diseases including diarrhoea, the second biggest child-killer in the world. Toxic chemicals and germs may be important dangers in drinking and recreational water.

Inadequate hygiene in food preparation increases the incidence of foodborne and diarrhoeal diseases.

Over 2.4 billion people do not have latrines. Human waste and its unsafe handling pollutes the ground and rivers where children live and play.

Degraded environments are the breeding ground for germs, worms and disease-bearing insects.

Half a billion children worldwide are debilitated each year by diseases such as malaria, schistosomiasis, dengue fever, leishmaniasis, trachoma, onchocerciasis, lymphatic filariasis, cholera, diarrhoeal diseases, hepatitis A, E and F, typhus, Chagas disease and many others.
The scale of pain and suffering inflicted by these diseases is immense.

Some diseases cause sudden repeated bouts of debilitating illness — keeping children anaemic, sick and away from school. Others result in severe deformities, long-term disability, and still others cause blindness, attention deficit disorders and mental retardation, affecting children’s education and depriving them of their full emotional and intellectual development.

At least 600 million people in developing countries live in unhealthy homes or close to waste dumps — increasing children’s vulnerability to parasitic diseases and poisoning.

Some 3 billion people burn wood and other biofuels to cook and keep warm. Harmful smoke in the home aggravates pneumonia and triggers bronchitis and asthma which damage children’s lung function and lead to chronic respiratory diseases.

Second hand tobacco smoke at home can trigger asthma in children.

Increased carbon monoxide in indoor and outdoor air affects foetal growth and compromises organ and muscular development in children.

Accidents and injuries such as drowning, burns, traffic accidents and poisoning can cause chronic physical and psychological disabilities, if the child survives.
• High levels of lead in air and water lead to anaemia, delayed growth, mental retardation, hyperactivity and hearing loss.

• Pesticide exposure can lead to neurotoxicity, immune and hormonal disruption, cancer and can interfere with the natural processes that regulate growth and development.

• Excess fluoride in drinking water can cause skeletal fluorosis, an irreversible and crippling condition in children; even small amounts of arsenic can result in skin hardening, organ damage and cancer; and nitrate pollution in the water resulting from the unsafe use of fertilisers causes the toxic ‘blue baby syndrome’.

• Excessive air pollutants, including second hand tobacco smoke, can lead to respiratory illness, asthma, organ damage and cancer. In some parts of the world, acute respiratory illness and asthma have reached epidemic proportions.

• Endocrine-disrupting chemicals polluting the environment are thought to affect reproductive and immune functions, and may cause neurotoxicity and neurobehavioural problems.
A growing number of diseases affecting children are linked to unhealthy and unsafe environments.

Environmental hazards are increasing. Many existing hazards are aggravated by explosive urban population growth and pervasive poverty, consumption of natural resources and uneven impacts of globalization. New hazards are emerging from environmental degradation, increased use of dangerous chemicals and industrialization.

Pollution and environmental degradation knows no country, state or regional border. Deadly contaminants or germs can move through air, water, food and soil wherever they may be released, from one country to another.

Poverty sets the stage for unhealthy, polluted and unsafe living conditions.
Poor or neglected children risk exposure to many environmental threats. Through malnutrition, poverty seriously impairs immune function, making children more vulnerable to disease of all kinds.

Poverty aggravates environmental threats because it is often associated with unhealthy housing, poor sanitation, malnutrition and limited access to health and social services.

Poor individuals tend to smoke more and their children are more likely to be exposed to second hand tobacco smoke.

One in five children in the poorest parts of the world will not live to their fifth birthday, mainly because of environment-related diseases.

Poor families lose precious income and assets to pay for their children’s medical costs – exacerbating the vicious cycle of poverty and ill health. As if this were not enough, underperforming and sick children lose their potential for a healthy and productive adulthood.

Countries lose billions of dollars from the direct and indirect costs of children’s environmental-related illnesses. The cost of action is only a fraction of the price of neglect.

There is real potential for improving children’s health through a dramatic scale-up in action to tackle environmental dangers.