

Environmental Degradation & Health Impact: Setting the Stage for SDGs



Dr Alissar Rady, NPO
Head technical team-WHO Lebanon

The global data indicates that 24% of the disease burden and 23% of deaths are attributable to environmental causes and that 36% of the disease burden in children is caused by environmental factors.

The main prevailing risk factors include; water and sanitation, air pollution, and exposure to chemicals, wastes and food contamination.

The overall burden of disease in the East Mediterranean region alone attributed to environmental factors is estimated at 60.8 billion USD. While the annual environmental health burden is 5.2 million DALYs (Disability Adjusted Life Years) worldwide, it is estimated at 39.3 DALYs per 1000 population in our East Mediterranean region.

The impact of environmental degradation on Health includes acute effects and chronic longer term effects. Among the acute effects, injuries, radiation burns, infectious diseases, upper airway irritation, neurologic symptoms (headache and fatigue), and acute respiratory ailments are the most common. Among the chronic effects, asthma, chronic lung diseases, cancers, cardiac problems, endocrine problems (thyroid, infertility), and congenital malformations are the most common.

At the global level, the correlation between the sharp rise in Non communicable Diseases mortality and morbidity and the increased environmental health risks has been well established. In fact, the top 5 causes of mortality worldwide are linked to NCDs, namely: stroke, ischemic heart disease, injuries, cancers and chronic pulmonary diseases, four of them linked to smoking, the silent killer causing indoor air pollution in urban settings, and to ambient air pollution in large and industrial areas.

In Lebanon, the recent acute waste disposal crisis has aggravated and accelerated the effects of the chronic environmental degradation on the health of population, sharply

The growing concern about the impact of the environmental degradation on Health has gained an important momentum over the past two decades. The concern was well expressed in the Sustainable Development Goals (SDGs), whereby the SDG3 aiming at “promoting healthy lives and well being for all at all ages” is affected by the other goals mostly related to environment. In fact, the global health statistics clearly indicate that around 22% of all death worldwide are linked to environmental factors, as shown in Figure 1 below:



Figure1- SDG 3 and linkages to other SDGs



Fig 2- types of Environment health risks (WHO, 2016)

increasing the exposure to organic, microbiological and chemical contaminants. Water, air and soil pollution have reached alarming levels. The most recent Joint Monitoring Program(JMP) study in 2016 (WHO-UNICEF) indicated that around 53% of households in Lebanon do not have access to safe water. Water air quality monitoring is indicating levels of air pollution reaching up to 7x the accepted WHO standard level. Smoking prevalence among adults has reached 31.6% among women and 46.8% among adult men. These environmental factors, coupled to sedentary life style, have added to the rapid rise in non-communicable diseases (NCDs) and in congenital malformations lately observed. Equally alarming is the increased incidence of outbreaks of water and food borne diseases such as Hepatitis A.

In 2015, WHO supported the MOPH in the development of a national Environmental Health Strategy, with the following main objectives:

- (a) reduce environment-related communicable diseases,
- (b) control environmental risks for non-communicable diseases and injuries,
- (c) protect the most vulnerable population groups from environment-related diseases, and
- (d) strengthen the resilience of the health system and reinforce

the capacities for emergency preparedness and response. This strategy involved the main key stakeholders from government institutions, and the main areas of work agreed upon include:

- Monitor water and sanitation sector indicators and evaluate sector performance,
- Update national regulations and management practices,
- Regulate, monitoring and evaluate the environmental health impacts of air pollution,
- Establish chemical safety risk reduction programs; build capacity and management skills to implement the International Health Regulations (2005),
- Regulate, monitor and evaluate the environmental health impacts of health care waste management, and
- Develop the capacity of the health sector to manage environmental health services during emergencies, and provide such services in health care facilities during emergencies.

In light of the current situation, and the actions required to reduce the effects of the current environmental degradation on the population health, it is imperative to have , within the umbrella of the SDGs, and focusing on the SDG3 a national Policy dialogue that opens the door to collective coordinated and targeted actions.