

From 25 years of inaction to a global transformation for public health

Meisam Tabatabaei

Agricultural Biotechnology Research Institute of Iran, Iran

Climate change and its adverse consequences have already exerted intense effects on diverse aspects of human life including health. The latest report recently published in the prestigious journal of the *The Lancet* (IF:47.8) reveals some groundbreaking findings to the scientific community for the first time. Some of the key findings presented were as follows:

125 million extra medically vulnerable adults exposed to heatwaves globally between 2000 and 2016. This builds on earlier findings showing that 1 billion additional people each year can be expected to be exposed to heatwaves by 2040.

87% of cities globally are in breach of WHO air pollution guidelines, meaning billions of people worldwide are exposed to unsafe levels of atmospheric particulate matter (PM 2.5). This is significantly higher than previously thought.

Undernutrition is identified as the largest health impact of climate change in the 21st century. Related impacts of climate change on crop production referenced in the report include a 6% decline in global wheat yields and 10% fall in rice yields for each additional 1 °C rise in global temperature.

Over one billion people globally will need to migrate within ninety years due to a rise in sea level caused by ice shelf collapse unless action is taken.

A 5.3% average fall in labor productivity of agricultural workers globally since the millennium, with a dramatic

drop of 2% between just 2015 and 2016 as a result of rising temperatures. This trend threatens the livelihoods and ability of subsistence farmers to support themselves and their families.

A 46% increase in weather related disasters since 2000. \$129 US billion of economic losses caused by climate related events in 2016 alone. 99% of losses in low-income countries are uninsured.

An increase of 3% and 5.9% in scope for likely transmission of the Dengue virus by just two types of mosquito since 1990. With 50 to 100 million infections of Dengue estimated to occur each year, this will exacerbate the spread of the world's highest growth disease.

It should be highlighted that the core reason behind global warming and some of the aforementioned phenomenon has been the increasing utilization of fossil-oriented energy carriers. In fact, the associated emissions have literally driven the planet Earth to an irreversible point, to an extent that if immediate actions will not be taken, the health-related accomplishments humanity has achieved over the last half a century could be undone. Expansion of the application of renewable energies including biofuels (biodiesel, bioethanol, etc.) could be regarded among the promising solutions which should be implemented to ensure sustainable development and continued health of the next generations.

e: meisam_tab@yahoo.com