

# The Time is Now

Climate Change Newsletter

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## Climate Change and Health



Changes in the climate affect many elements of our society and the environment we live in. Some of the climate-sensitive systems include: ecosystems, coastal areas and requirements demands on heating and cooling systems in our homes and workplaces.

The change in our climate and the fact that the average temperatures are rising is having an effect on our environment. The following are just some examples of the changes that have been observed: shrinking of glaciers, longer growing seasons, earlier flowering of trees and shifts in plant and animal distribution ranges.

Around the world, diseases and other threats to our health depend largely on the local climate. Extreme temperatures, whether cold or hot, can result in loss of life and climate related disturbances in ecosystems. For example, changes in temperature usually associated with seasonal changes are extending the distribution range of infective parasites. This is having a direct impact on the spread and incidence of serious infectious diseases. Moreover, warmer temperatures could increase pollution in the air around us and also in the water thus leading to health hazards.

The Intergovernmental Panel on Climate Change (IPCC 2007) concluded:



**HSBC**   
The world's local bank



*"Human beings are exposed to Climate Change through changing weather patterns (for example, more intense and frequent extreme events) and indirectly through changes in water, air, food quality and quantity, ecosystems, agriculture, and economy."*

*"At this early stage the effects are small but are projected to progressively increase in all countries and regions."*

Our health is strongly affected by how we live, our economy, the environment that surrounds us, technological and scientific developments and our individual behaviour. Moreover, every individual's health is dependent on certain vulnerabilities, such as: genetic status, nutritional status, well-being, age, gender, economic status and emotional well-being.

On the basis of these vulnerabilities, Climate Changes will impact differently on population groups and regions. The strength of the impact depends on the duration of the exposure to the changes themselves and on our society's ability to adapt or cope with these changes.



### Increase in Temperatures

Due to Climate Change the average temperatures are to rise. These increases will lead to extreme heat waves and milder cold spells in the winter. The incidence of heat waves and hot extremes are predicted to increase.

Some age groups - the very young and elderly, together with people suffering from asthma and heart problems are especially vulnerable to these changes.



Floods have become a frequent issue on the world news.



The IPCC noted that the global population at risk from vector-borne malaria will increase between 220 million - 400million in the next century.



### Extreme weather

This winter we have seen extreme weather conditions in the north of Europe, coupled with extreme rain and floodings in both Australia and South Africa, who were in the middle of their summer season.

These extreme weather events can result in more event-related deaths, infectious diseases and stress-related disturbances.

### Climate sensitive diseases

Warmer temperatures can result in:

- an increased risk of vector borne diseases, such as, malaria, dengue and yellow fever; and
- prolonged disease transmission seasons where certain diseases already exist

Instances of previously unknown mosquitoes which are vectors of serious diseases have been recorded in Europe (including Malta).

A lot will depend on society and the public health system of each country to determine the existence, the extent and the ability to control such diseases.

### Food availability

Climate Change will also have a negative impact on crop production and yields. While developed countries might find alternative solutions to low food availability, the Third World Countries will be suffering the most. Poverty is increased leading to an increase in the number of under nourished people.

Malnourished persons - particularly young children - are more prone to infections and diseases. Consequently, child development is greatly affected and the incidence of infant mortality is increased. Older people are also exposed to and die from these diseases.

### Air quality

An increased temperature due to Climate Change tends to reduce air quality and increase the incidence of health problems related to air. Respiratory disorders can be aggravated by the increase of ground-level ozone (smog) and particulate air pollution.

Ground-level ozone can damage lung tissue, and is detrimental to the health of sufferers of asthma and other lung diseases.

Particulate air pollution is a mixture of extremely small particles and liquid droplets. When breathed in, this mixture goes into the deepest parts of the lungs and can cause respiratory complications.

### Related links

<http://www.epa.gov/climatechange/effects/index.html>

[http://www.who.int/mediacentre/news/notes/2009/climate\\_change\\_20090311/en/index.html](http://www.who.int/mediacentre/news/notes/2009/climate_change_20090311/en/index.html)

[http://en.wikipedia.org/wiki/Effects\\_of\\_global\\_warming](http://en.wikipedia.org/wiki/Effects_of_global_warming)

<http://www.euro.who.int/en/what-we-do/health-topics/environmental-health/Climate-change/news/news/2010/05/climate-change-in-malta-new-report>

<http://www.infonet-ae.eu/en/articles/adult-education-and-climate-change-in-malta-0654>

*"As with many other areas in public health, the long-term effects of Climate Change may not appear until decades later. Malta has no room for complacency in this regard, especially given our vulnerability as a small island state. We have a very high population density, few natural resources and limited financial and human resources."*

