



ENVIS CENTRE, CHANDIGARH

# NewsLetter

P a r y a v a r a n - P a t r a

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## Chandigarh State of Environment



### EDITORIAL

### WEATHER AND CLIMATIC CONDITIONS : CHANDIGARH

#### INTRODUCTION :

Weather and Climate of a region refers to the similar environmental parameters but based on relatively different occurrence period and geographical region. Weather describes the condition of the atmosphere over a short period of time e.g. from day to day or week to week, while climate describes average weather conditions over a longer period of time. Step outside and you experience many facets of weather. Humidity, air temperature and pressure, wind speed and direction, cloud cover and type, and the amount and form of precipitation are all atmospheric characteristics of the momentary conditions we call weather. It generally prediction of the environmental conditions of smaller area.



However, in popular usage, climate represents the synthesis of weather; more formally, it is the weather of a locality averaged over some period (usually 30 years), plus statistics of weather extremes. Climate is a greater phenomenon describe big regions, geographical spheres.

Being a northern city of India, a capital of two adjoining states Punjab and Haryana; and located at the foothills of Shivalik hills, Chandigarh enjoys an extreme climate with hot summers (March to June) and chilly winters (November to February). The monsoon season, though pleasant in the evenings, is humid during the daytime. The best season to visit Chandigarh is autumn (August to November), when the weather is pleasant, neither too hot, nor too cold. One of the greenest city of India, Chandigarh is planted with beautiful seasonal flowering trees all around to offer the visitors a soothing experience throughout the year. Like other northern states of the country, the City Beautiful also experience six seasonal climate and rapidly changing weather conditions as explained further.

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## Seasons of the City Beautiful



### Summer season (Max temperature between 35-40° C)

Chandigarh, being located in the plains of Northern India, has a moderate weather, just like any other North Indian City having similar geological location. The summers which start from the month of May, do get pretty harsh by the late end of the month and in the whole of June, with temperatures inching down a few degrees in the month of July with the onset of Monsoon. The mercury can scale up to 45° centigrade which really makes the going tough and the education institutions are given a summer vacation in the months of May and June. The days of months from April to June are usually occupied with the strong hot air waves. This is the time when most of the city's citizens head up towards the hill stations located in the vicinity of the city, like Kasauli and Shimla.



### Monsoon Season (Max temperature between 28-35° C)

The monsoons arriving in the middle/late of July bring with them a great relief for the local citizens, which is at time short lived due to the increasing humidity. But after a fresh rainfall, the sight of the city is breath taking, with green trees and grass having being dusted of with a splash of water, a hint of cool air and the awesome view of the Shiwaliks from the Sukhna lake are the things to enjoy the most. By the end of August and till the mid of September, the monsoons have crossed their way over the city and then sets in the fall season, with moderate temperatures ranging between 25 – 30 Degrees Celsius and the mercury keeps on dipping lower with the onset of winters till November. The average amount of rainfall received by the city beautiful Chandigarh during the whole year is 1076 mm (Avg. of last 16 years). The period of September till November, attracts most of the tourists to the city as the weather is there to be enjoyed by everyone, throughout the day.



## ❖ Winter season (Max temperature between 8-20° C)

With the start of winters in November, the city is lashed with some rainfall, which help in further reducing the already declining temperatures in the months of December, January and February. By then end of November and the beginning of December it is winter time for the city people and mostly everyone stays indoors during early morning and at the night, venturing outside around noon. Another aspect of the North Indian winters is the FOG, which settles down almost as every other day by late evening and gets cleared by 10:00 am the next day. Fog does create a major problem for commuting in and around the city, as it makes the driving conditions extremely dangerous and many at time the air and rail traffic are also affected by the fog. Moreover, practices like stubble burning in the adjoining agricultural states (Haryana & Punjab) worsens the situation. All this ceases to occur by the end January and the spring season starts to kick in by late February.



## Spring Season (Max temperature between 15-25° C)

Spring calls in again the onset of moderate temperatures till the summers start to blast of their fury by the end of April. The climate remains quite pleasant during the spring season (from mid-February to mid-March and then from mid-September to mid-October). Temperatures vary between (max) 16 °C to 25 °C and (min) 9 °C to 18 °C. Spring season of the city always spread fragrances and colors all over the city with the bloom of densely planted flowering trees.



## Autumn (Max temperature between 17-30° C)

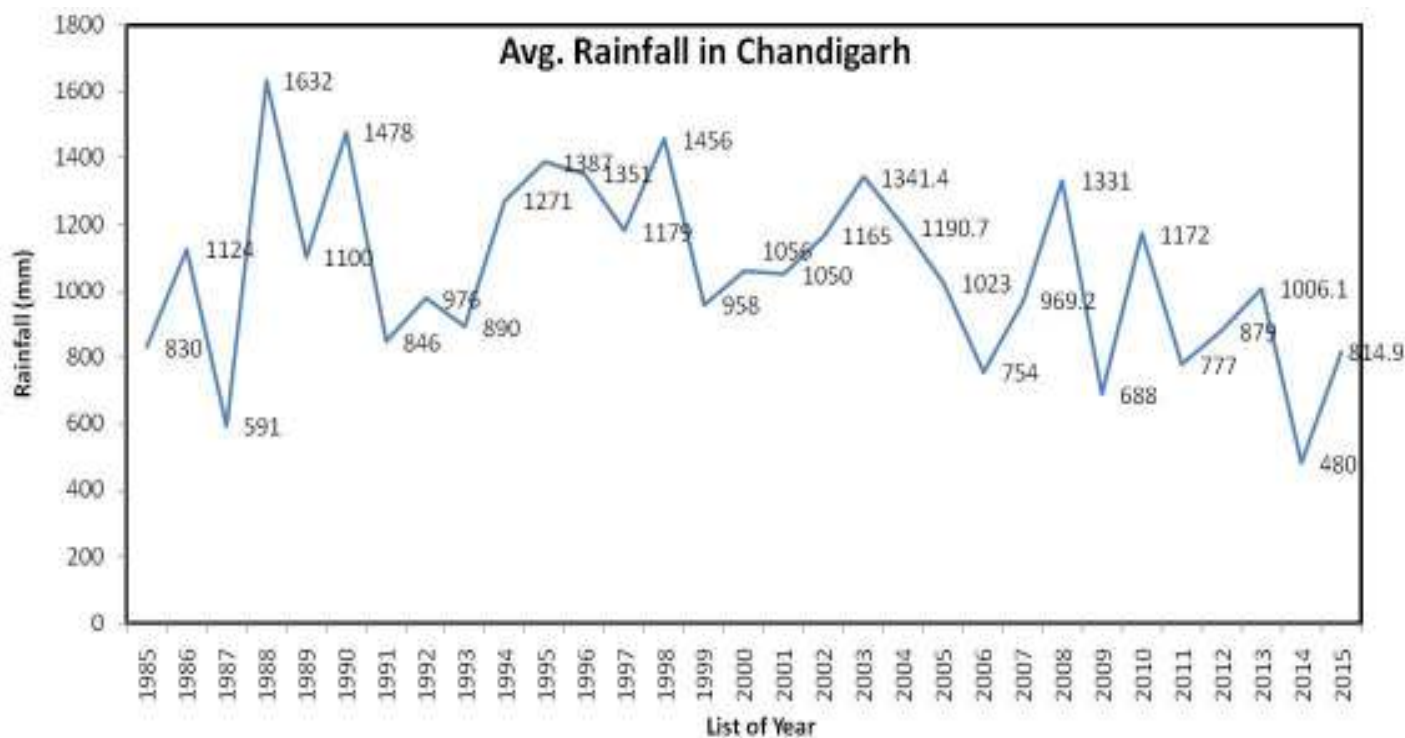
In autumn (from Mid-March to April), the temperature may rise to a maximum of 36 °C. Temperatures usually remain between 17° to 20° Celsius in autumn. The minimum temperature is around 13 °C. Due to dense tree cover around the road-side and inside the city sectors, the fallen leaves create truly beautiful panoramic sceneries all around. However, at the same time, collection of the dead leaves and cleaning of the city stats up at the war pace by municipal corporation of the city. Environmentally safe disposal of the leaves again poses a challenging task of them. All seasons of the city leaves remarkable memories for the visitors.



## Trends of Climatic Events in Chandigarh:

The regular weather events occurring from season to season - year to year, represents the climatic conditions of the city. The compiled data of prime weather events is described further in the graphical representation. The climatic events generally belongs to the larger areas/rigions of the earth. As the climate change is happening throughout the nation; the city beautiful can never escape the effects. The graph below represents the changing rainfall patterns of the city over last 30 years. The average rainfall experienced by the city every year is showing a decreasing pattern, similar to the other part of the country.

### Rainfall Patterns in Chandigarh: 1985 - 2016

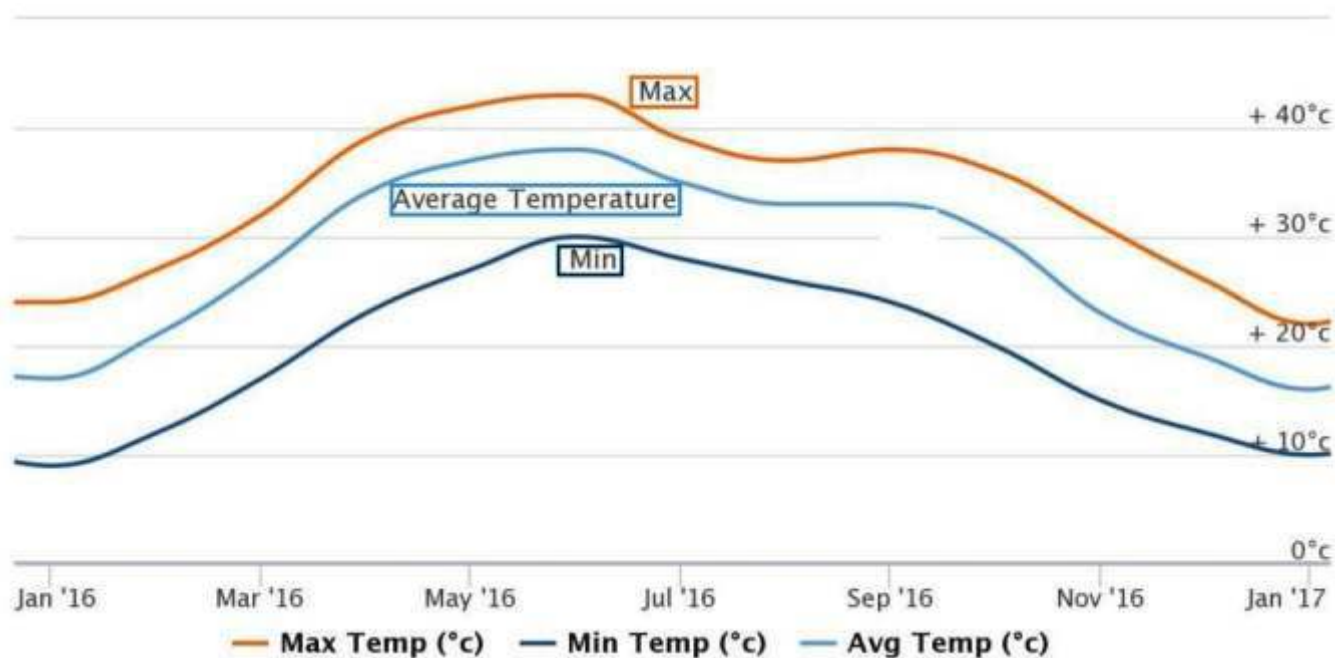


Rainfall Days with more than 50 mm Rainfall in Chandigarh													
Year	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	Total Days
2009									10, 11				2
2010						8, 9	5, 6	21	12, 22, 23			31	9
2011						25	16	16	9				4
2012							7	21	17, 19				4
2013						14, 16		9					3
2014									6			14	2
2015			2				6, 17		23				4
2016							23	22					2

Source: Statistical abstract, Chandigarh

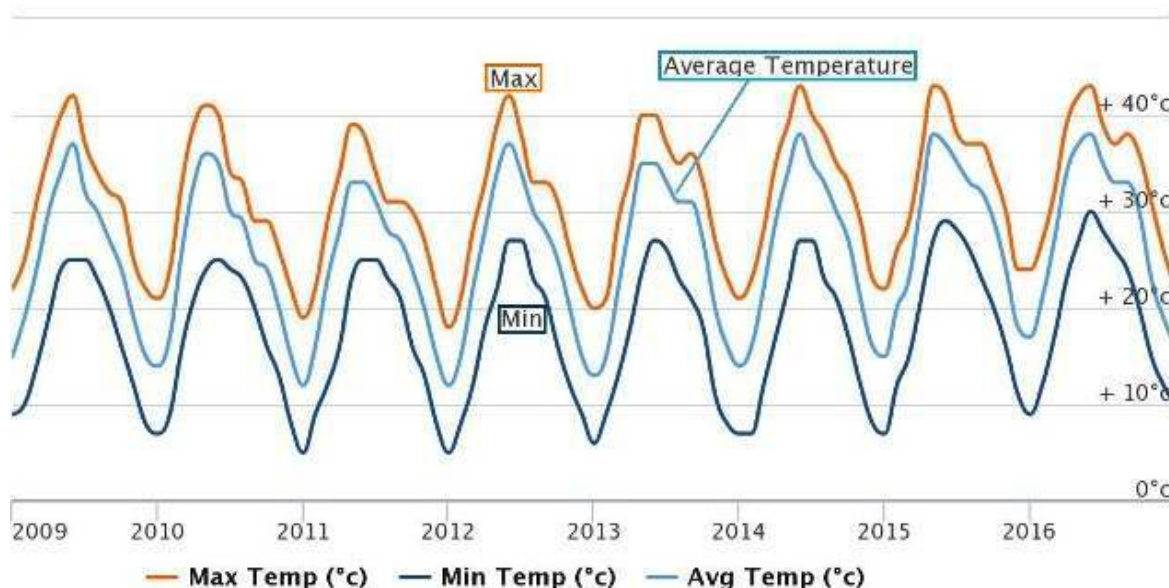


## Variations in Temperature throughout an Year



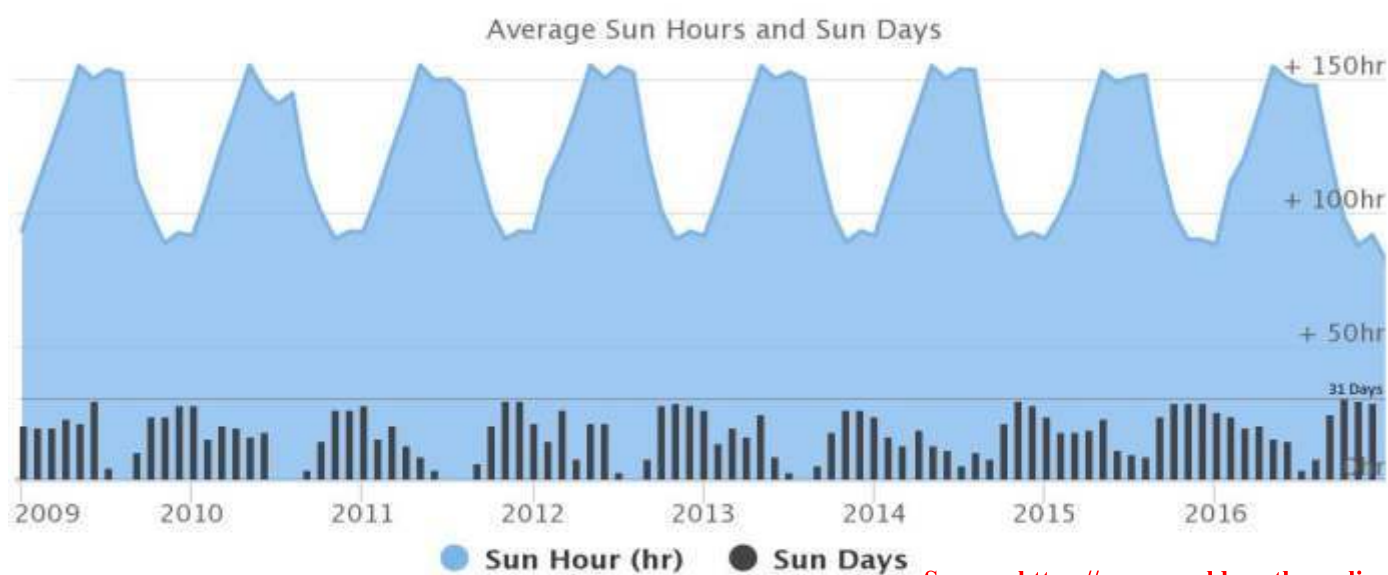
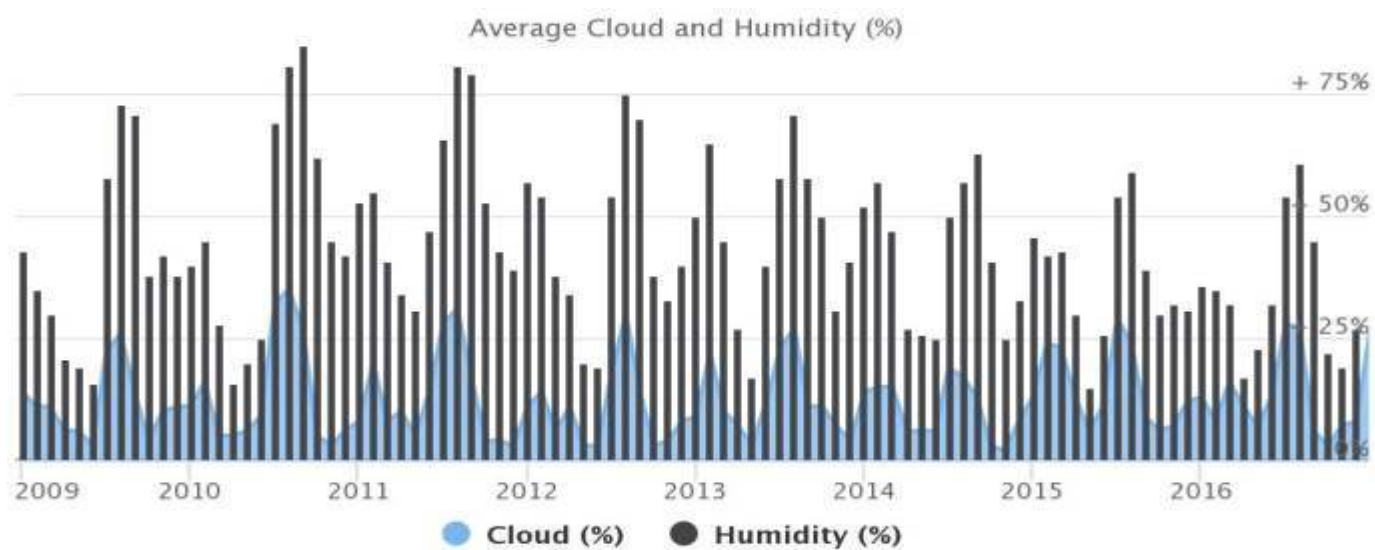
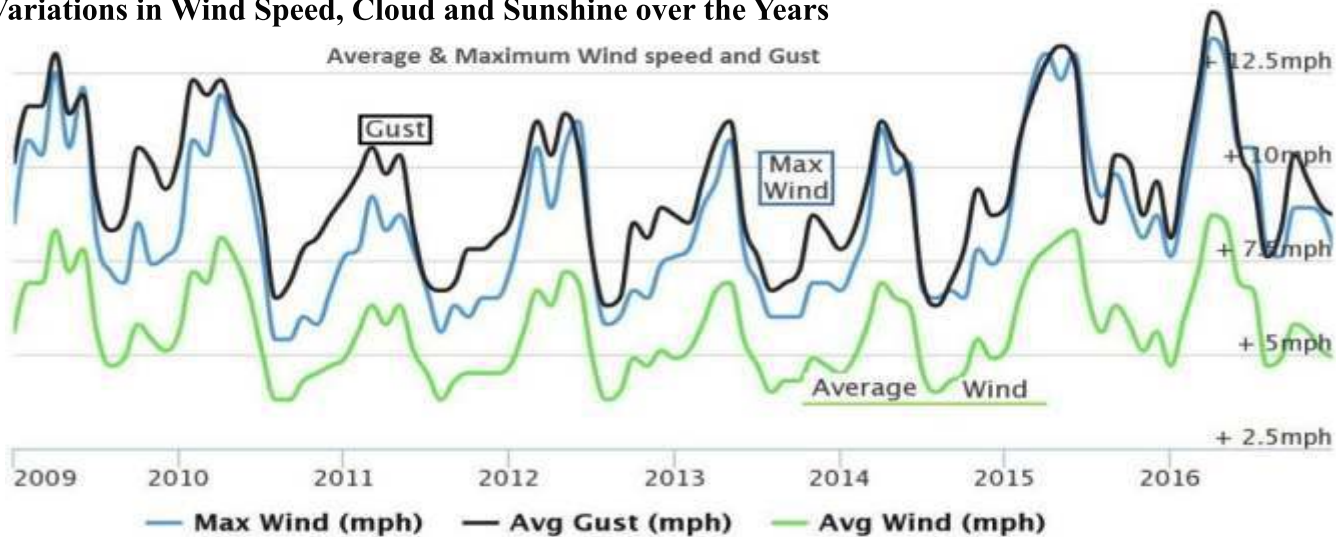
The graph above represents the monthly fluctuations in the temperature of the city showing the maximum temperature in May-July and minimum during Dec-Feb. The temperatures we experience locally and in short periods can fluctuate significantly due to predictable cyclical events (night and day, summer and winter) and hard-to-predict wind and precipitation patterns. The graph below shows the variations in temperature of UT Chandigarh, experience since Jan 2009. It can be seen that the average temperature of Chandigarh is fluctuating irrationally during last years, giving a decreasing pattern during 2009-2012 and then increasing then onwards. This path of temperature can be linked with various other environmental factor like rainfall, humidity, air and pressure patterns etc.

## Temperature fluctuations in Chandigarh: Jan 2009 - Dec 2016



Source: <https://www.worldweatheronline.com>

## Variations in Wind Speed, Cloud and Sunshine over the Years



Source: <https://www.worldweatheronline.com>



**Dear Information Seeker,**

ENVIS CENTRE, Chandigarh furnishes you with the services to collect and disseminate information related to environment of Chandigarh. To share information with us you are requested to fill up the form given below.



Your feedback is valuable to us and will be highly appreciated

- Name \_\_\_\_\_
- Designation \_\_\_\_\_
- Department \_\_\_\_\_
- Address \_\_\_\_\_
- \_\_\_\_\_ City \_\_\_\_\_
- State \_\_\_\_\_ Country \_\_\_\_\_ Pin \_\_\_\_\_
- Phone \_\_\_\_\_ Fax \_\_\_\_\_
- Email \_\_\_\_\_

**Your views on scope of improvement :**

- Interest Area \_\_\_\_\_

**I would like to have information on following :**



**ENVIS CENTRE TEAM**

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(Director, Environment)

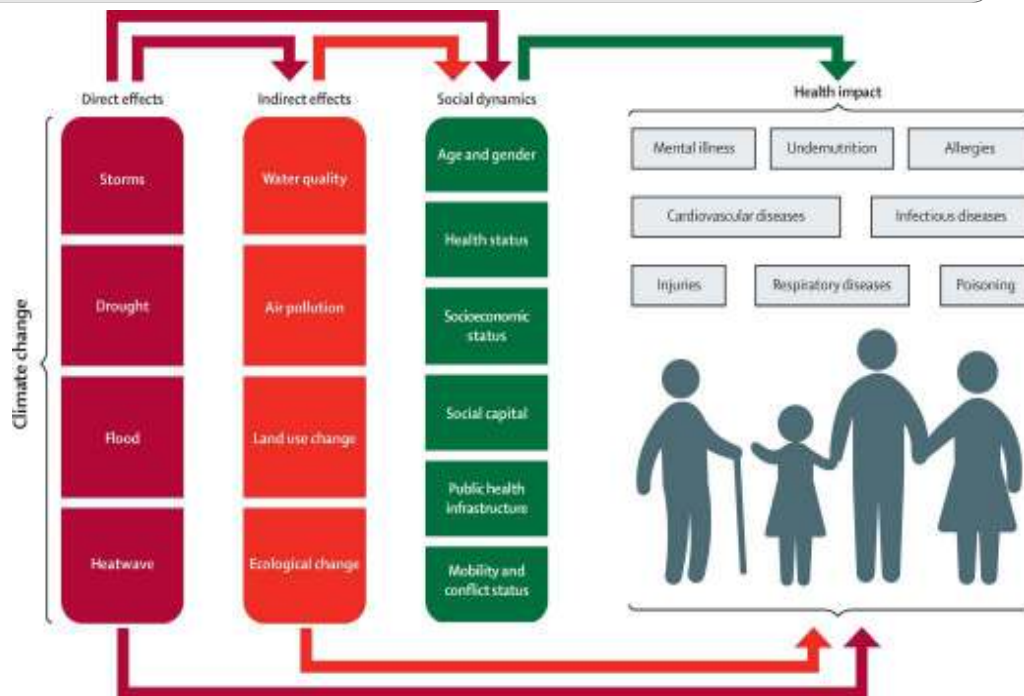
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Human health has always been influenced by climate and weather. Changes in climate and climate variability, particularly changes in weather extremes, affect the environment that provides us with clean air, food, water, shelter, and security. Increasing industrialization, overexploitation of petroleum products and enormous generation of solid-liquid-gaseous waste by the practices of mankind are contributing continuously towards the global climate change and resultantly, the deterioration of our overall health. The picture below describes the dependency of our life supporting factors and relative human health on changing Climatic Conditions. Some of these health impacts are already being experienced world wide. Connecting our understanding of how climate is changing with an understanding of how those changes may affect human health can inform decisions about mitigating (reducing) the amount of future climate change, suggest priorities for protecting public health, and help identify research needs.

**From:**

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To,

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