

## **UPSC Civil Services Examination**

# Geography

**Topic: Types of Wind** 

Wind can be described as the movement of air from the high-pressure area to the low-pressure area. There are many types of wind such as permanent, seasonal and local winds. A wind is named after the direction from which it blows, e.g. the wind blowing from the west is called westerly.

The topic, 'Types of Wind,' is important for <u>IAS Exam</u> from both prelims and mains perspectives. This article will provide relevant facts about wind and its type.

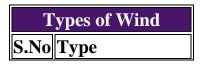
### What is Wind?

It is an <u>air</u> movement having both direction and speed. It is made up of gusts and eddies that can only be felt and not seen, unlike rain and snow. Wind makes the leaves fall, sand move, trees wave, hair fly, etc. Since it cannot be seen, a conventional instrument is used to measure wind direction called **weathercock or weather vane**.



**Types of Wind** 

There are three main types of wind, mentioned in the table below:

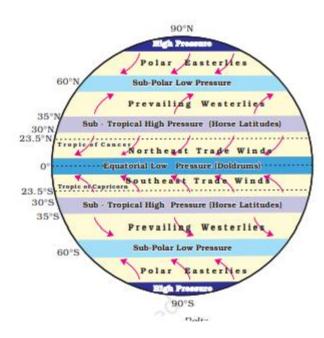


1.	Permanent Winds
2.	Seasonal Winds
3.	Local Winds

#### **Type of Wind - Permanent Winds**

The winds that blow constantly throughout the year are called Permanent Winds. They also blow constantly in a particular direction. There are types of permanent winds:

- 1. **Trade Winds** These are permanent winds flowing from east-to-west. It flows in the Earth's equatorial region (between 30°N and 30°S latitudes).
- 2. **Easterlies** It is a prevailing wind blowing from the east. The trade winds in tropical regions and the prevailing winds in the polar regions are easterlies.
- 3. **Westerlies** These are prevailing winds that flow from the west towards the east. It flows in the Earth's middle latitudes between 30 and 60 degrees latitude. Also called as anti-trades, these winds originate from the high-pressure areas in the horse latitudes and trend towards the poles and steer extratropical cyclones in this general manner.



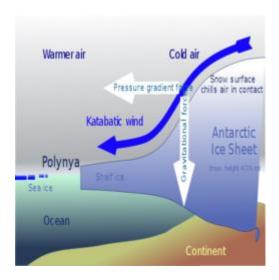
**Type of Wind - Seasonal Wind** 

The winds that change their direction with onsets of different seasons. These are hence called as Seasonal Winds. A monsoon is a type of seasonal wind in low-latitude climates that seasonally changes direction between winter and summer. Monsoon is prevalent in India.

#### **Type of Wind - Local Wind**

These blow only during a particular period of the day or year in a small area. For example, land and sea breeze. The types of local wind are given below:

- 1. **Land Breeze** It is a wind that flows from the land towards the sea. It flows often at night.
- 2. **Sea Breeze** It is a wind that blows towards land from the direction of a large water body. Sea breeze develops due to differences in air pressure created by the differing heat capacities of water and dry land.
- 3. **Anabatic Winds** These Winds are upslope winds driven by warmer surface temperatures on a mountain slope than the surrounding air column.
- 4. **Katabatic Winds** Katabatic winds are downslope winds created when the mountain surface is colder than the surrounding air and creates a downslope wind.



#### Names of Local Winds around the World for UPSC Prelims

The local wind is known with different names in different regions across the world. The table below mentions the list of names of local winds that can be asked in <u>UPSC 2020</u> prelims exam.

List of Names of Local Winds of the World		
Name	Region	
Abrolhos	Brazil	
Alisio	Carribean	
Alize	Central Africa and the Caribbean	
Barguzin wind	Russia	
Berg	South Africa	
Harmattan	Central Africa	
Ghibli	Libya	
Loo	India, Pakistan	
Pampero	Argentina, Uruguay	
Föhn or foehn	Alps, North Italy	
Chinook	Rocky Mountains	

Roaring Forties	Southern Hemisphere
Southerly Buster	Sydney

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