

The india monsoon



The Indian Monsoon The monsoon is a yearly cycle, where the direction of the wind changes, bringing storms and rainfall to the land, and when the wind changes again it brings drought to the land. This creates a wet and a dry season in some areas, such as the Indian region. However, this is not a set of wet and dry seasons, the monsoon varies from year to year and even from day to day. The word “ monsoon” is believed to have originated from the Arabic word mauser, which itself means “ season” (Fein & Stephens, 1987, p.

3). During the wet season of the monsoon intensive, storms and rainfall occurs.

In the case of the Indian monsoon, during the summer the temperature rises, this makes the air hot. When air gets hot it rises, because the density of the molecules decreases. This creates a low atmospheric pressure, this low pressure acts as a vacuum system, bringing more and more air up. The Indian Ocean gets hot as well; this makes water to evaporate and making the air humid.

As this humid hot air reaches the Tibetan Plateau, the Orographic effect occurs creating condensation, and therefore storms and precipitation, this makes the wet season. On the other hand the opposite happens during dry season.

Because of the height and extent of the Tibetan Plateau, it acts as a mechanical barrier for upper tropospheric western winds. In addition, the lowering of the temperature during the winter creates high atmospheric pressure.

As temperature of the air decreases it moves down changing the direction of the wind. These changes on the direction of the wind, brings cold and dry air from the Himalayas. This is why there is little to no precipitation during the dry season (Fein & Stephens, 1987, p. 332). This constant cycle between dry and wet season, or Indian monsoon, greatly influences the activities and culture of this region.

The people of India have great festivals to celebrate the coming of the monsoon.

There are also beautiful poems dedicated to the monsoon dating thousands of years back, demonstrating how influential the Indian monsoon is to this region (Fein & Stephens, 1987, p. 55). This is no surprise here, since a lot of things depend on the rain that the monsoon brings to this region. For example, the agricultural sector still highly depending on the rainfall that the monsoon brings, even so, new technologies of irrigation have been introduced to this region.

To put it in perspective, about 90 per cent of the rice production in the world comes from this region, and this is only possible thanks to the Indian monsoon (Wang, 2006, p. 651). However, if the monsoon has a late cycle, agriculture is affected in this region, since the people of India depends on its rainfall for production. It takes 20 centimeters of rain per month to cultivate rice; this demonstrates how much water is needed in this area for agriculture production (Wang, 2006, p. 661).

On the other hand, too much rain also affects the people of India. Floods and landslides tend to be common during the wet season of the monsoon.

In the year 2006, about 6 million people were affected in the state of Gujarat, when the monsoon caused floods up to 20 feet high. This brings an estimated 100 million dollars loss on properties. Landslides are also responsible for taking lives and damaging properties. In some cases landslides do not take place right away after heavy rainfall; it may take days, weeks, or even months before a landslide take place (Bryant, 2005, p. 262). Living in a region with a monsoonal climate has particular implications, and especially with a fast growing and dense population, as in the case of India.

According to the World Population Data Sheet, India is the second most populous country in the planet, with population of 1, 171 million of people, and is expected to be the most populous country by 2050. This puts a toll on the natural resources in this region, as more resources are needed. As the population grows, urbanization takes places.

A rapid urbanization is taking place in this region due to people moving from rural areas to urban areas to find jobs, and thus creating a fast growing and dense population.

This rapid urbanization has several implications. For example, as population grows and moves to urban areas some people are forced to live in hilly areas, where landslides are common due to the Indian monsoon. Other people move to lowlands, where severe floods occur due to the monsoon. People also are forced to live on land that otherwise could be arable. This represents a problem, because as the population grows and more

urbanization takes place, having less land to grow food produces stress on the land available for farming as demand increases.

Tropical cyclones are common in the coastal areas due to the monsoon. It has been predicted that climate change will increase the intensity of these tropical cyclones. This puts in risk people's livelihoods in cities, such as Mumbai, which is the India's financial hub. This also could hurt the productivity and economy of India. In addition, this increase the intensity of tropical cyclones will bring an uneven distribution of the monsoons' water; more precipitation will occur in the coastal areas and less precipitation in the interior of India, creating droughts.

This could bring devastating consequences to millions of people of this region; since agriculture is highly depended on the precipitation that the Indian monsoon brings. We can conclude that the Indian monsoon, and its yearly cycle brings the needed water to this region, but we can also see that it is a double-edged sword. Too much water, and floods can occur, to little water and droughts can occur. We can also see how the monsoon affects the culture from its poetry, to the agriculture, and we can see the implication of living in a monsoonal climate.