

## 253. Impact of Natural Climate on Socio-Economic Condition of People in District Tharparkar, Sindh

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### Abstract

District Tharparkar is one of the 23 districts of Sindh province due to its geographical conditions, most of the times this district face the natural disasters, draughts, and food insecurity. Therefore child mortality rates and malnutrition among children and women is high. Natural Climate or Environment has always been of great importance for socio-economic conditions of people of that area. In Pakistani Media this district is frequently highlighted due to population destruction. All issues in district have their root causes in climate change. Climate change has socio-economic effects on animals, plants, and human life. This research paper analyzed the socio-economic conditions of people of district Tharparkar before and after rain fall to know the impact of climate change. The research is descriptive in nature and review of reports and scholarly written articles is made to meet the research objectives. Major objective of the study (i)To know the impact of climatic changes on district Tharparkar (ii)To know the socio-economic problems of Tharparkar caused by climatic changes (iii)To forward recommendations for governmental and non-governmental organizations for development of better strategies to improve the situation. This study finds that district has not been rained sufficiently in last ten years which resulted draughts and poor socio-economic conditions.

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**Key Words:** *Climatic change, rain, draughts, socio-economic life.*

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### 1. Introduction:

The Climate change is a well-known fact and its impacts on water, agriculture, health, biodiversity, forest and socio-economic sectors are quite visible around the globe. According to IPCC (2007), developing and the least developed countries are expected to suffer more due to climate change as compared to the developed countries. This is true if we scale down this fact to the community level; in case of any climatic irregularity the poor people face the consequences due to lack of resources and access to information.

Being a predominantly agricultural economy, climate change is estimated to decrease crop yields in Pakistan, which in turn will affect livelihoods and food production. Combining the decreased yields with the current rapid population growth and urbanization in the country, the risk of hunger and food security will remain high. (sewatrust.org)

### 2. Tharparkar

Actually, Thar consists of: (i). Bahawalpur (ii). Judhpur (Indian state) (iii). Some parts of Jesalmer (Indian state) (iv). Obaro and Mirpur Mathelo talukas of district Sukkur (v). Eastern part of Khairpur (vi). Some parts of Khipro and Umerkot talukas and (vii). Present Tharparkar. This study is about present Tharparkar, which consists of Mithi, Diplo, Chachro and Nagarparkar talukas. Thar is a desert region in the southern part of Sindh province in Pakistan (Herani 2002:1).

The district derives its name from Thar and Parkar. The name Thar is from Thul, the general term for the region sand ridges and Parkar literary means “to cross over”. It was earlier known as Thar and Parkar district, but later became one word Tharparkar. The district bounded on the north by Mirpurkhas and Umerkot districts, on the east by Barmer and Jaisselmir districts of India, on west by district Badin and on the south by Rann of Kutch. The total area of the district is 19,638 kilometers.

The district is mostly deserted and consists of barren tracts of sand dunes covered with thorny bushes. The ridges are irregular and roughly parallel, that they often enclosed sheltered valleys, above which they rise to a height of some 46 meters. These valleys are moist enough to admit cultivation and when not cultivated, they yield luxuriant crops of rank grass. But the extraordinary salinity of the subsoil and consequent shortage of potable water renders many tracts quite uninhabitable. In many of the valleys the subsoil water collects and forms large and picturesque salt lakes, which rarely dry up.

Tharparkar is compounded by difficulties of access and communication, its' economy is characterized by high population growth, in spite of relatively high maternal and infant mortality rates. The hardships are further exacerbated by the migration of communities, decreasing socio-economic opportunities based on traditional practices, and above all, rapid and irrevocable deterioration of environmental resources that retains the very survivals of the population

## 2.1. Potential in Resources

Tharparkar is rich in minerals, the coal deposits of the district is one of the largest coal deposits of the world spread over 9000 square kms. Other major mineral include granite, china clay and salt. Presently there is no industry in the whole district although it has large potential with reference to its geographical position and natural resources. The area is poor in agriculture as it completely depends on rain water.

## 2.2. Climatic Conditions of District Tharparkar:

Climate is an average weather in a place over many years. This is a region with semi-arid climate. Short moderate monsoon rain falls, no perennial surface flow, saline groundwater, high temperature, high rate of evaporation and proximity to the sea. The surface water resources of Tharparkar are limited. Above mentioned climatic conditions affects availability of water, and make life at Tharparkar miserable. Ground water is available but it contains large concentration of salt and minerals. It is dangerous for life of human beings as well as livestock. (Ebrahim, 2013)

The district has a tropical desert climate. In summer, when it is too hot during day time, the nights are remarkably cooler. April, May and June are the hottest months during the day. December, January and February are the coldest months. The mean/average maximum and minimum temperature during this period are 28°C and 9°C respectively. There are wide fluctuations in the amount of rain fall from year to year and the yearly average for some areas is as low as 100 mm. Most of the rain falls between July and September, during the south -west monsoon, and is often concentrated in a period of two to three days.

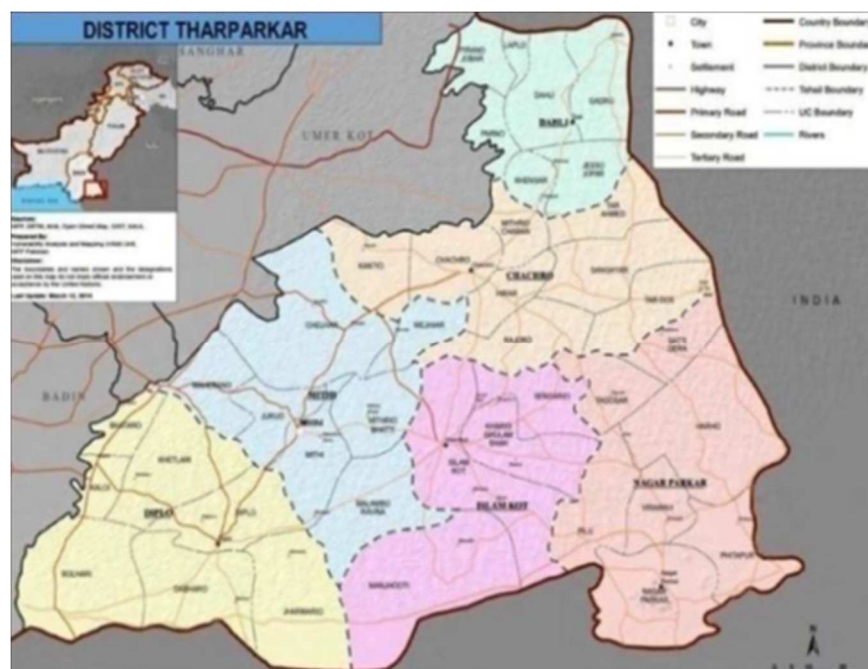


Fig. 1. Map of District Tharparkar

**Table:No.1 Population of District**

Population	1,251,455
Number of Taluka/Tehsil	04
Number of Union Councils	44
Number of Villages	2188
Number of Health Facilities	37
DHQ	01
THQ	03
RHC	02
BHUs	31

**Table: 2 Ten years Rain Fall record of District Tharparkar:**

S. No	Years	Rain in millimeters (mm)
1	2007	148.5 mm
2	2008	15.8 mm
3	2009	43.8 mm
4	2010	72.0 mm
5	2011	31.0 mm
6	2012	Heavy rain in Tharparkar
7	2013	189 mm
8	2014	189 mm
9	2015	Moderate rain showers
10	2016	22 mm

Sources: <https://pakistanweatherportal.com/category/tharparkar-district-rain/>

### 3. Objectives of the Study:

- To know the impact of climatic changes of district Tharparkar.
- To know the socio-economic problems of Tharparkar caused by climatic changes
- To forward recommendations for governmental and non-governmental organizations for development of better strategies to improve the situation.

As described in climatic conditions of district this is deserted area with low rain fall. Therefore, rain has an immense impact on socio-economic conditions of people. This paper analysis the socio-economic conditions of people before and after the rain fall.

### 4. Review of Literature:

Socio-economic condition of people in district Tharparkar is worst due to draughts in last three years. Majority of people is living under poverty line, due to low economic status women and children are malnourished. Bajra (Millet) and Gawar (Cluster Bean) are major crops cultivated in district besides, moog, rice and wheat is also cultivated. Research found meat and milk are absent in diet of Thari people. Different handicrafts are produced by local people but they do not have any market facility to earn from their handicrafts. (RAHMA, 2015)

Climate in district is not favorable for agriculture, only 33% of land is cultivable whereas 77% of land is sand dunes. Social indicators as education, health, economic and housing quality show very poor state of human development in district. (SPDC, 2015)

Reports by National disaster management authority and provincial disaster management authority revealed the fact in their findings that water scarcity is at high level in district Tharparkar than any other district in country. Draughts have affected livelihood of local people. (Dawn, 2016)

Non-government organizations working in district Tharparkar are:

- Thar Deep Rural Organization.
  - Sukaar foundation
  - Tharparkar Social Organization, Mithi.
  - Rural Development Association (RDA)
  - AWARE, Association for Water, Applied Education & Renewable Energy.
- Etc...[http://www.ngos.org.pk/cities/tharparkar\\_ngos.htm](http://www.ngos.org.pk/cities/tharparkar_ngos.htm)

Draught is not new phenomenon in District Tharparkar; its mismanagement is real problem. Life of thousands of children and people are at risk due to unavailability of health facilities in district. Health is main issue in district but government as well NGOs are not serious and sincere to resolve real issues of people (Bangash, 2016).



**Fig. 3. District Tharparkar before the Rain (houses before rain)**



**Fig. 4. District Tharparkar after the Rain (houses after rain)**



**Fig. 4. District Tharparkar before the Rain (Peacocks and other chattels die in draughts)**



**Fig. 5. District Tharparkar after the Rain (everywhere dancing peacocks)**