

# Geographical study of famine and desertification in Rajasthan

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## Abstract

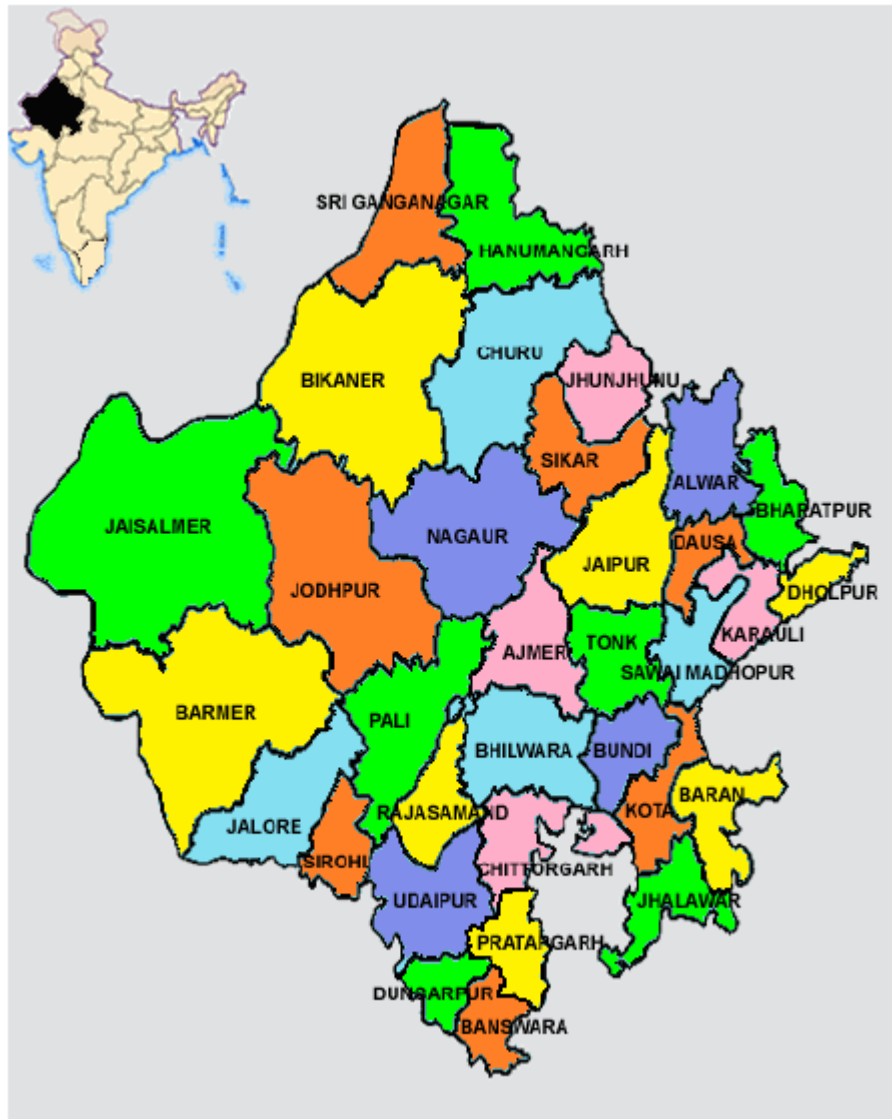
The main reason for famine in Rajasthan is the uncertainty and irregularity of rainfall. Due to the unevenness of the climate of Rajasthan, the nature of the forests, the condition of the surface and the direction of the Aravalli range being parallel to the monsoon winds, there is a situation of famine and drought. The famine of 1987 was the worst famine of the 20th century. This famine had taken the form of Trikala. Such a land where any type of vegetation is not found nor is it likely to be found, such an area is called a desert. In other words, normal and dry areas where there is always lack of vegetation and rainfall and rainfall is less than 100°C annually. That part is called desert. Deserts can be of both hot and cold types. This process of becoming a desert is called desertification. Under which a dry area gradually turns into a desert. The alkaline soil of India, except the desert areas, is an intermediate soil, which is spread over an area of about 68 thousand square km in the arid regions of northern Bihar, Uttar Pradesh, Punjab, Haryana, Rajasthan, Tamil Nadu, Maharashtra. Due to low rainfall, high temperature and insufficient water scarcity, or arid soil developed. The 'Kallar soil' spread over an area of 12 lakh hectares of Punjab belongs to the same class. That soil is called Kallari, Reh Usar Athair. The development of that soil is high in various soluble salts, chlorides, sulphates of calcium, magnesium and sodium and sulphates. The average annual rainfall here is 75°C. The water here has salts ranging from 0.1 to 0.5 per acre feet. Due to irrigation with that water, a substantial area of land in Ferozepur, Gurgaon, Rohtak and Hisar watersheds is gradually moving towards desertification. In the presented research paper, geographical study of the problem and solution of famine, drought and desertification in Rajasthan has been done.

**Keywords:** Famine in Rajasthan, causes of famine, types of famine, measures and conclusions to control desertification.

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## I. Introduction :-

Famine is a widespread lack of food that can apply to any animal species. This event is usually accompanied or followed by regional malnutrition, starvation, epidemics, and increased mortality. When there is little or no rainfall in an area for a long period of time (up to several months or several years), it is called drought or famine. Due to drought, there is a very adverse effect on the agriculture and environment of the affected area. This stifles the local economy. Some famines in history have been very infamous in which millions of people have lost their lives. Emergency measures for famine relief primarily involve providing compensatory micronutrients such as vitamins and minerals through fortified sugar powders or directly through supplements. Aid groups have begun to use famine relief models based on cash payments to local farmers or giving cash vouchers to the hungry, rather than buying food from donor countries because donor countries damage local food markets. Long-term measures include investing in modern agricultural techniques such as fertilizer and irrigation, which have largely eradicated hunger in the developed world. World Bank obligations limit government grants to farmers and are opposed by some environmental groups because of the unintended consequences of overuse of fertilizers: adverse effects on water supplies and habitat. India has a long history of famines. There were several famines between 1022–1033. A large number of people died all over India. Even in the early 1700s, famine had shown its severe form. There were 25 major famines after 1860. Tamil Nadu, Bihar and Bengal came under the grip of these famines. In 1876, 1899, 1943–44, 1957, 1966 also the famine caused havoc. In backward states like Orissa, Bengal, Bihar etc. people used to starve for many days. People used to yearn for a handful of grains. India is such an agricultural country. Where one has to live at the mercy of monsoon and weather. There are many such areas here. Where not even a single drop falls in the rainy season and it rains a lot in the harsh winter days. Bihar, Assam, Bengal etc. are such states. Where there is a problem of flood every year due to excessive rainfall, but most of the northwestern areas of Rajasthan yearn for water due to lack of rain on the season. Due to precipitation, there is famine or drought and there is a shortage of food, fodder, grass etc. The problem of famine, drought and desertification is also widespread in Rajasthan.



**Objective :-**

- 1 Geographical study of the problem of famine and drought in Rajasthan.
- 2 To analyze the spread, effect and control measures of desertification in Rajasthan.

**Hypothesis :-**

The problem of famine and desertification is increasing in Rajasthan.

**Source of data :-**

Primary and secondary data have been used in the present research. The primary data has been collected through personal contact through schedule and questionnaire while various government published reports have been used for secondary data.

**Famine problem in Rajasthan :-**

Most of the land of Rajasthan is dry desert. Monsoon rains are usually less in its northwestern part and there is a complete lack of drinking water and irrigation facilities. Due to the lack of rainfall, the black shadow of famine hangs over here every year and thousands of villages suffer from famine every year.

Continuous decrease in the water level in the desert is indicating some big crisis to come. The condition of most of the dams in the state is looking worrying. The calmness of the rivers which are always in spate are giving indications of the terrible crisis facing the people.

Only 34 per cent water is left in the dams of Rajasthan, a decrease of 6 per cent has been registered in comparison to last year. At the same time, the average rainfall level in Rajasthan is also falling year by year. All these signs are telling us to save water drop by drop.

In 1869, there was the worst famine ever in the state, it is also called the Great Rajputana famine. The life of Rajasthan, Gujarat, Western Uttar Pradesh and Punjab was badly affected in this famine. In this year of 1869, there was little rain in the month of August. The whole year passed in the hope of rain, but not even a drop of water had fallen. There was an acute shortage of food for people and fodder for animals.

Thousands of people died this year due to hunger and thirst. One such rainlessness is of the year 1899, in which the year 1956 Vikrami Samvat was going on, due to which these prints were called famine. During this year not a single drop of water fell and it became difficult to survive amidst the conditions of starvation. Those who learned to live with the struggle were saved and those who could not continue this fight for bread and water had to lose their lives after being defeated by this disaster.

#### **Some prominent examples of famine are in Rajasthan.**

- Chalisa famine in 1783 AD (V. Samvat 1840),
- Panchkal in 1812-13,
- 1842-43 AD (V. Samvat 1899-1900) The devastating famine was called Sahasa Mudsa.
- Trikal in 1868-69 and
- Printed famine of 1899-1900 AD (Vikram Samvat 1956).
- The Khejdi tree was the main support of the people during Chhappaniyas famine.

From 1952 to 2016, there was no famine in Rajasthan in the following years :- 1959–60, 1973–74, 1975–76, 1976–77, 1990–91, 1994–95

Permanent :- Famine caused by drought. Sahasa Mudasa Famine :- Famine of 1842-43 (V.S. 1900-1901)  
Chhappaniya famine year 1899 (V. S. 1956 )

#### **Great Famine :- 1987-88**

In the year 2000-01, except Dholpur, all the districts of Rajasthan were affected by famine. In the year 2009-10, 27 districts of Rajasthan were affected by famine.

- Folk sayings about famine are also prevalent in Rajasthan. 'Tejo Kurio Eighth Time' means Kuria (semi-famine) here every year and severe famine every eighth year. Jaisalmer, Jodhpur and Barmer are such districts of Rajasthan which often remain in a state of famine.
- 1999-2000 was a famine free year in the state after independence.

Khedau (Golu) A person who takes cattle to other regions in search of fodder and water when there is a famine.

Colonel James Tod termed the problem of famine and drought in Rajasthan as a natural disease.

- Foyasagar (Ajmer) - This lake was constructed during the year 1891-92 under famine relief works.
- Rajsamand - In 1662 there was a severe famine in Mewar under which the Rajsamand lake was formed. The construction of this lake was the first famine relief work in the country.

Macro Drought / Whad Famine The Famine of 2002-03 in Rajasthan was the worst famine of 100 years

#### **Desertification :-**

Desertification is a process of degradation of arid ecosystems, under which all forms of organic life in deserts become minimal and economic possibilities diminish. The definition gives an impression of the process in which the ecology of the arid region is destroyed and no biological element can survive, thus in the end the economic possibilities are diminished. There are two main forms of desertification process-

**Desert Expansion** In dry desert countries, sand particles are deflected by the winds on the outer boundaries of the desert and in this way the deserts expand outwards. An example of this is the extension of the Thara desert of Rajasthan towards the western parts of Uttar Pradesh in India.

**Change in desert Soil erosion**, excessive use of chemical fertilizers, chemical-drugs, etc. have converted fertile lands into deserts. Sometimes rivers deposit sand particles on a wide area of fertile soil at the time of flood, due to which the fertile area starts turning into a desert.

#### **Effects of desertification :-**

The effect of desertification is badly affecting the environmental life of Rajasthan which is a challenge for the entire nation. The following problems are arising due to desertification which are as follows –

- ★ Rapid erosion and long distance deflection of rocks due to wind erosion.
- ★ Destruction of fertile land due to drift of sand with strong wind speed.
- ★ Rapid decline in ground water level.
- ★ Lack of drinking water
- ★ Rapid destruction of forests due to desert expansion.
- ★ Continuous increase in alkaline and barren land.
- ★ Continuous contraction of pasture areas.
- ★ Probability of continuous famine.

- ★ Irrigation problem.
- ★ Famine problem.

**Causes of desertification: -**

There are many reasons for desertification, some of which are as follows-

**forest destruction**

Man is continuously cutting down the forests to fulfill his physical needs. Due to which the forest areas are decreasing day by day. Forest area is shrinking due to destruction of forests in Rajasthan. Similarly, the Aravalli mountain range has also become desolate as a result of forest destruction. Forests are being destroyed at a rapid pace to get firewood from here. According to N.R.S.A (National Reptot Sensiny Agency), forest destruction has reached an alarming situation in Rajasthan.

**overgrazing**

In arid and semi-arid areas, excessive pastoralism is an economic activity. In such areas, excessive pastoralism reduces vegetation cover and increases soil erosion. Due to which soil fertility ends and the process of desertification starts moving forward.

**excessive irrigation**

Due to excessive irrigation, the land gets waterlogged and water evaporates. Then the salts come up from the lower parts due to which the land becomes barren. Due to drinking water and excessive irrigation from Terai areas in India, the land is prone to becoming barren.

**Excessive use of chemical fertilizers and medicines –**

Various types of chemical fertilizers are used in these to get maximum agriculture from the soil. Due to which the qualities of the new circle of soil start to end, the fertile land starts turning into barren land and desertification starts.

**Desertification control measures: -**

The following are the measures to control desertification-

**Desired irrigation –**

Irrigation should be done as much as necessary in fertile land areas, this will not cause the problem of water flooding and there will be less possibility of salt content coming up.

**low pastoralism**

Nude cattle grazing should be encouraged in desert gardens. Due to this, soil erosion will be reduced and due to the presence of vegetation cover, erosion will not happen.

**water problem**

Due to the water cover in the desert regions, the desert area is increasing, so if a network of canals is laid in such parts, then the same deserts will be converted into floating fields. For example, Indira Gandhi Canal Project which has proved to be a boon for Rajasthan.

**II. Conclusion :-**

Thus, the above factors are important and effective measures to control desertification and are like a lit lamp for the future of the country. The people of Rajasthan have been facing famine continuously for many years. Every time the state government requests the central government for financial assistance. Cooperation of charitable people and voluntary organizations is expected to help the famine-stricken people. In this way, only with the coordinated efforts of all, Rajasthan can be saved from the horrors of famine.

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