

# Geography of Rajasthan



**T.S. Chouhan**



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# GEOGRAPHY OF RAJASTHAN

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**Smt Vidya Chouhan**

*for*

*Constant Inspiration and Support*





**JAI NARAIN VYAS UNIVERSITY  
JODHPUR, RAJASTHAN (INDIA)**

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US Fulbright Post-Doctoral Fellowship Awardee

**FOREWORD**

Rajasthan is endowed with diversified natural resources with a unique combination of Thar Desert, Aravali Hill, Hadoti Plateau and Eastern Alluvial Plain. To meet the increasing demands of burgeoning human and livestock population, improved technology has to be employed in order to obtain optimum yields from our natural resources. However, exploitation of nature cannot be reckless because the agro ecosystem is fragile and prone to degradation. Land resources assessment and management is thus absolutely essential in order to conserve our natural resources and sustain their productivity.

The book is an endeavour to develop resource development plan for sustainable development through the use of latest technology of Remote Sensing and GIS. Resources and infrastructure scenario has also changed. The book is therefore a revised and updated version using latest inputs. I hope the book will be useful for planners at government level as also researchers and teachers in the Universities, NGOs and all those interested in developmental activities.

All issues of concern have effectively been addressed and synthesized well in this book. It will serve as an useful document. In fact, the author of this book has long experience of working in regional geography. He has done a commendable job which I am sure will be useful to researchers, extension workers, students and policy planners alike.

**(J. K. Jain)**

30 October, 2019





## The Author



**Dr. T.S. Chouhan** is former Professor in the Department of Geography, University of Rajasthan, Jaipur (India). He has to his credit over 35 years of experience in teaching and research in interdisciplinary subject.

Dr. Chouhan has participated in number of International Conferences and Presented Research Paper and Chaired Technical Sessions. He has visited Brazil, Morocco, Saudi Arabia, Tunisia, Argentina, Germany and France.

Dr. Chouhan has worked intensively on the following projects:

- (i) Ecology of Tropical Deserts in Special Reference to Arid Land Physiology (UNESCO Project Encyclopaedia of Life Support System).
- (ii) Desert Eco System in India (UNESCO Project Encyclopaedia of Life Support System).
- (iii) Ecology of Tropical Deserts in Special Reference to Biogeography and Evolution of Desert Animals (UNESCO Project Encyclopaedia of Life Support System).

He has also completed one UGC major Research Project on “Geo-informatics for Combating Land Degradation and Desertification in Fragile Aravalli Foothills Eco System of Rajasthan”.

He has to his credit more than 70 research papers published in reputed journals in India and abroad and more than two dozen well acclaimed books. He has been guiding research work for the last more than two decades and supervised more than fifty doctoral theses.

Dr. Chouhan is recognized consultant/expert to the Government of Rajasthan, Planning Department (Gr. IV), Jaipur in various fields like Wasteland Development, Forestry, Land Management, Water Conservation, Remote Sensing and Cartography.

Dr. Chouhan holds active membership of various International, National and Regional Academic Societies.



## Preface

Rajasthan state has been a wide vistas, diversified natural and cultural spectrum and changing pattern of progress and development in various fields like agriculture, forestry, mining, industries, economic and social way of life since historical past. The development of the state is considered in harmony with nature with certain exceptions like environmental hazards and resource exploitation.

Rajasthan is endowed with diversified natural resources. The survival of mankind has always been supported by nature and its resources. For centuries man has been exploiting these resources for his survival and development. In the rapid march of progress, the balance that needs to be maintained between exploitation and regeneration was however largely ignored. With the increase in population there has thus been great pressure on these resources leading to their scarcity and degradation. Proper Planning for management of growth is possible only when relevant information of resource, population, availability of social and industrial infrastructure and the trends in growth are known.

Rajasthan is a land of extremes and the present book indicates the great variety in relief, climate, soil, vegetation, agricultural activity and mineral deposits.

The aim of the book is comprehension and understanding through functional correlation. Detailed information is furnished for the purpose of illustrating a point and general functional relationship.

The subject has been treated in its regional aspects and an attempt has been made to preserve a balance between the physical, human and economic aspects. This book provides updated information regarding land, people, available resources and infrastructural facilities mainly through maps, graphs, charts and tables. I hope the book will be useful for planners, researchers, teachers, students, NGO and all those interested in developmental activities in Rajasthan.

Jaipur

January 11, 2020

**T.S. Chouhan**

## Acknowledgement

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I shall be failing in my duty if I do not express my sincere thanks to my wife Vidya who strived hard during the preparation of this book.

**T.S. Chouhan**

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# Chapter 1

## INTRODUCTION

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Rajasthan, the largest state of India (3,42,239 sq. km.) situated in the north-western part of the Indian union ( $23^{\circ} 3'$  and  $30^{\circ} 11'$  North latitude and  $69^{\circ} 29'$  and  $78^{\circ} 17'$  East longitude) is largely an arid state for most of its part. The Tropic of Cancer passes through south of Banswara town. Presenting an irregular rhomboid shape, the state has a maximum length of 869 km. from west to east and 826 km. from north to south. The western boundary of the state is part of the Indo-Pak international boundary, running to an extent of 1,070 km. It touches four main districts of the region, namely, Barmer, Jaisalmer, Bikaner and Ganganagar. The state is girdled by Punjab and Haryana states in the north, Uttar Pradesh in the east, Madhya Pradesh in south east and Gujarat in the south west (Figure 1.1).

Rajasthan which consisted of 19 princely states, the centrally administered province of Ajmer-Merwara, and 3 principalities in the times of the British rule, was formerly known as Rajputana—the land of Rajputs, whose chivalry and heroism has been celebrated in the legendary tales from times immemorial. The formation of Rajasthan state in its present form started in 1948 when the states Reorganization Commission reconstituted the various provinces.

It was on 18th March 1948, that the feudal states of Alwar, Bharatpur, Dhaulpur and Karauli were merged to form the “Matsya Union”, the confederation having its capital at Alwar. Only about a week later, on 25th March, 1948, other ten states viz. Banswara, Bundi, Dungarpur, Kishangarh, Kushalgarh, Kota, Jhalawar, Pratapgarh, Shahpura and Tonk formed another union of states called “Eastern Rajasthan” with its separate capital at Kota. On the April 18th

1948, Udaipur state also joined this federation which was renamed as Union of Rajasthan. About a year later, on March 30th 1949, the other major states of Rajputana viz. Bikaner, Jaipur, Jodhpur and Jaisalmer also joined the federation. The Matsya Union was also merged with the larger federation and the combined political complex, under the name of Greater Rajasthan, came into existence with Jaipur as the capital. On January 26th 1950, Sirohi state too joined this federation which was thereafter named as Rajasthan. The centrally administered area of Ajmer Merwara was merged with Rajasthan on November 1, 1956, when the recommendations of the State Reorganization Commission were accepted, and the new state of India came into existence (Figure 1.2).

The area of Rajasthan is nearly equivalent to some of the urbanized countries of the western world like Norway (3,24,200 sq. km.), Poland (3,12,600 sq. km.) and Italy (3,01,200 sq. km.). The desert area of Rajasthan are among the few tropical deserts of the world which have the highest population density. Dating back to the old archeological history of the area, the artefacts and stone age tools, discovered at a few sites of the Luni Basin, the Buddha Pushkar, Ahar valley, Kalibanga, Pilibanga and Santhore reveal that the area was inhabited by early man, 6 to 10 thousand years ago, leading to the surmise that the region had a climate favourable for human habitation in those times. It was only in the later ages, more especially in the last thousand years the climatic conditions gradually became adverse and the degradation of natural ecosystem was accentuated by the indiscriminate economic activities of man.



Source: Survey of India; GOI and Census of India, 2011

**Figure 1.1** Location of Rajasthan