

# PRACTICAL Work in Geography

## PART II

TEXTBOOK FOR CLASS XII



12101



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

**First Edition**

February 2007 Magha 1928

**Reprinted**

February 2008 Magha 1929

January 2009 Magha 1930

January 2010 Magha 1931

December 2010 Pausa 1932

January 2014 Magha 1935

February 2015 Magha 1936

December 2015 Agrahayana 1937

February 2017 Magha 1938

December 2017 Pausa 1939

December 2018 Agrahayana 1940

August 2019 Shravana 1941

January 2021 Pausa 1942

December 2021 Agrahayana 1943

**PD 10T RSP**© **National Council of Educational  
Research and Training, 2007**₹ **75.00***Printed on 80 GSM paper with NCERT  
watermark*

Published at the Publication Division by the Secretary, National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi 110 016 and printed at Raj Printers, A-9, Sector B-2, Tronica City Industrial Area, Loni, District Ghaziabad 201 102 (U.P.)

**ALL RIGHTS RESERVED**

- No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publisher.
- This book is sold subject to the condition that it shall not, by way of trade, be lent, re-sold, hired out or otherwise disposed of without the publisher's consent, in any form of binding or cover other than that in which it is published.
- The correct price of this publication is the price printed on this page. Any revised price indicated by a rubber stamp or by a sticker or by any other means is incorrect and should be unacceptable.

**OFFICES OF THE PUBLICATION  
DIVISION, NCERT**NCERT Campus  
Sri Aurobindo Marg  
New Delhi 110 016

Phone : 011-26562708

108, 100 Feet Road  
Hosdakere Halli Extension  
Banashankari III Stage  
Bengaluru 560 085  
26725740

Phone : 080-

Navjivan Trust Building  
P.O.Navjivan  
Ahmedabad 380 014

Phone : 079-27541446

CWC Campus  
Opp. Dhankal Bus Stop  
Panihati  
Kolkata 700 114

Phone : 033-25530454

CWC Complex  
Maligaon  
Guwahati 781 021

Phone : 0361-2674869

**Publication Team**

Head, Publication Division	: Anup Kumar Rajput
Chief Editor	: Shveta Uppal
Chief Production Officer	: Arun Chitkara
Chief Business Manager	: Vipin Dewan
Editor	: M.G. Bhagat
Production Assistant	: Prakash Veer Singh

**Cover and Layout**

Blue Fish

**Cartography**

Cartographic Design Agency

# Foreword

The National Curriculum Framework (NCF), 2005, recommends that children's life at school must be linked to their life outside the school. This principle marks a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home and community. The syllabi and textbooks developed on the basis of NCF signify an attempt to implement this basic idea. They also attempt to discourage rote learning and the maintenance of sharp boundaries between different subject areas. We hope these measures will take us significantly further in the direction of a child-centred system of education outlined in the National Policy on Education (1986).

The success of this effort depends on the steps that school principals and teachers will take to encourage children to reflect on their own learning and to pursue imaginative activities and questions. We must recognise that, given space, time and freedom, children generate new knowledge by engaging with the information passed on to them by adults. Treating the prescribed textbook as the sole basis of examination is one of the key reasons why other resources and sites of learning are ignored. Inculcating creativity and initiative is possible if we perceive and treat children as participants in learning, not as receivers of a fixed body of knowledge.

These aims imply considerable change in school routines and mode of functioning. Flexibility in the daily time-table is as necessary as rigour in implementing the annual calendar so that the required number of teaching days are actually devoted to teaching. The methods used for teaching and evaluation will also determine how effective this textbook proves for making children's life at school a happy experience, rather than a source of stress or boredom. Syllabus designers have tried to address the problem of curricular burden by restructuring and reorienting knowledge at different stages with greater consideration for child psychology and the time available for teaching. The textbook attempts to enhance this endeavour by giving higher priority and space to opportunities for contemplation and wondering, discussion in small groups, and activities requiring hands-on experience.

The National Council of Educational Research and Training (NCERT) appreciates the hard work done by the textbook development committee responsible for this book. We wish to thank the Chairperson of the advisory committee for textbooks in Social Sciences, at the higher secondary level, Professor Hari Vasudevan and the Chief Advisor for this book, Professor M.H. Qureshi for guiding the work of this committee. Several teachers contributed to the development of this textbook; we are grateful to their principals for making this possible. We are indebted to the institutions and organisations which have

generously permitted us to draw upon their resources, material and personnel. We are especially grateful to the members of the National Monitoring Committee, appointed by the Department of Secondary and Higher Education, Ministry of Human Resource Development under the Chairpersonship of Professor Mrinal Miri and Professor G.P. Deshpande, for their valuable time and contribution. As an organisation committed to systemic reform and continuous improvement in the quality of its products, NCERT welcomes comments and suggestions which will enable us to undertake further revision and refinement.

New Delhi  
20 November 2006

*Director*  
National Council of Educational  
Research and Training

# Textbook Development Committee

**CHAIRPERSON, ADVISORY COMMITTEE FOR TEXTBOOKS IN SOCIAL SCIENCES AT THE HIGHER SECONDARY LEVEL**

Hari Vasudevan, *Professor*, Department of History, University of Calcutta, Kolkata

**CHIEF ADVISOR**

M. H. Qureshi, *Professor*, Centre for the Study of Regional Development, Jawaharlal Nehru University, New Delhi

**ADVISOR**

S. M. Rashid, *Professor*, Jamia Millia Islamia, New Delhi

**MEMBERS**

K. K. Sharma, *Principal (Retd.)*, Lohia College, Churu

M. H. Quasmi, *Lecturer*, IASE, Jamia Millia Islamia, New Delhi

R. N. Vyas, *Professor*, CSSH, Mohanlal Sukhadia University, Udaipur

Shahab Fazal, *Reader*, Aligarh Muslim University, Aligarh

Sucharita Sen, *Associate Professor*, CSRD, Jawaharlal Nehru University, New Delhi

**MEMBER-COORDINATOR**

Tannu Malik, *Lecturer*, Department of Education in Social Sciences and Humanities, NCERT, New Delhi



Nirmalya Chakraborty, College of Art, New Delhi

# Acknowledgements

The National Council of Educational Research and Training acknowledges the contributions of H. Ramachandran, *Professor and Head*, Delhi School of Economics, Delhi University; B. S. Butola, *Professor*, CSRD, JNU; Odilia Coutinho, *Reader*, R.P.D. College, Belgaum; Anup Saikia, *Reader*, Gauhati University, Guwahati; Abdul Shaban, *Asstt. Professor*, Tata Institute of Social Sciences, Mumbai and Rupa Das, *PGT*, DPS, R.K. Puram, New Delhi in the development of this textbook.

Special thanks are due to Savita Sinha, *Professor and Head*, Department of Education in Social Sciences and Humanities for her valuable support at every stage of preparation of this textbook.

The Council is thankful to the Survey of India for certification of maps given in the textbook. It also gratefully acknowledges the support of individuals and organisations as listed below for providing various photographs and illustrations used in this textbook:

S.M. Rashid, *Professor*, Jamia Millia Islamia, New Delhi for fig. 1.2, 1.3 and 1.4; M.H. Quasmi, *Lecturer*, IASE, Jamia Millia Islamia, New Delhi for fig. 3.9, 3.10, 3.11 and 3.12; R.N. Vyas, *Professor*, CSSH, Mohan Lal Sukhadia University, Udaipur for fig. 5.1, 5.2 and 5.3; Odilia Coutinho, *Reader*, R.P.D. College, Belgaum for fig. 5.4 and 5.5 and Shahab Fazal, *Reader*, Aligarh Muslim University, Aligarh for fig. 6.8, 6.9, 6.10, 6.12 and 6.13.

The Council also gratefully acknowledges the contribution of Anil Sharma and Ishwar Singh *DTP Operators*; Ajay Singh, *Copy Editor*, Aarati Baloni, *Proof Reader* and Dinesh Kumar, *Computer Incharge* who have helped in giving a final shape to this book. The contribution of the Publication Department, NCERT in bringing out this textbook is also duly acknowledged.

**The following are applicable to all the maps of India used in this textbook**

1. © Government of India, Copyright 2006
2. The responsibility for the correctness of internal details rests with the publisher.
3. The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.
4. The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.
5. The interstate boundaries amongst Arunachal Pradesh, Assam and Meghalaya shown on this map are as interpreted from the “North-Eastern Areas (Reorganisation) Act.1971,” but have yet to be verified.
6. The external boundaries and coastlines of India agree with the Record/Master Copy certified by Survey of India.
7. The state boundaries between Uttaranchal and Uttar Pradesh, Bihar and Jharkhand, Chhattisgarh and Madhya Pradesh have not been verified by the Governments concerned.
8. The spellings of names in this map, have been taken from various sources.



# Contents

<b>FOREWORD</b>	<i>iii</i>
<b>CHAPTER 1</b>	
Data – Its Source and Compilation	1 – 12
<b>CHAPTER 2</b>	
Data Processing	13 – 31
<b>CHAPTER 3</b>	
Graphical Representation of Data	32– 54
<b>CHAPTER 4</b>	
Use of Computer in Data Processing and Mapping	55 – 70
<b>CHAPTER 5</b>	
Field Surveys	71 – 84
<b>CHAPTER 6</b>	
Spatial Information Technology	85 – 100
<b>ANNEXURE</b>	101 – 105
<b>GLOSSARY</b>	106

# THE CONSTITUTION OF INDIA

## PREAMBLE

**WE, THE PEOPLE OF INDIA**, having solemnly resolved to constitute India into a <sup>1</sup>**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

**JUSTICE**, social, economic and political;

**LIBERTY** of thought, expression, belief, faith and worship;

**EQUALITY** of status and of opportunity; and to promote among them all

**FRATERNITY** assuring the dignity of the individual and the <sup>2</sup>[unity and integrity of the Nation];

**IN OUR CONSTITUENT ASSEMBLY** this twenty-sixth day of November, 1949 do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

1. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Unity of the Nation" (w.e.f. 3.1.1977)