INDIA'S RISE TO POWER

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India's Rise to Power

in the Twentieth Century and Beyond

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Softcover reprint of the hard cover 1st edition 1995 978-0-333-63196-6

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First published in Great Britain 1995 by
MACMILLAN PRESS LTD
Houndmills, Basingstoke, Hampshire RG21 2XS
and London
Companies and representatives
throughout the world

A catalogue record for this book is available
from the British Library.

ISBN 978-1-349-39404-3 ISBN 978-0-230-37180-4 (eBook)
DOI 10.1057/9780230371804

10 9 8 7 6 5 4 3 2
04 03 02 01 00 99 98 97 96 95

First published in the United States of America 1995 by
Scholarly and Reference Division,
ST. MARTIN'S PRESS, INC.,
175 Fifth Avenue,
New York, N.Y. 10010

ISBN 978-0-312-12452-X

Library of Congress Cataloging-in-Publication Data
Gordon, A. D. D.
India's rise to power : in the twentieth century and beyond / Sandy Gordon.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-312-12452-X
1. India—Politics and government—20th century.
DS480.4.G67 1995
954.03'5—dc20

94-30738
CIP

In memory of my parents

CONTENTS

Acronyms	ix
List of figures, tables, maps	xv
Preface	xix
Introduction	1
Part 1	The Means to Power
Chapter 1	Indian Science and Technology and the Defence Industries 19
Chapter 2	Arming India 55
Chapter 3	The Economy and Defence 117
Chapter 4	Performance and Prospects 143
Part 2	Limits to Power
Chapter 1	Instability and Power 155
Chapter 2	The Roots of Instability 163
Chapter 3	Politics, Instability and the South Asian Setting 200
Chapter 4	Consequences of Instability 220
Chapter 5	Breaking the Vicious Circle 240
Part III	The Context of Power
Chapter 1	South Asia and the End of the Cold War 247
Chapter 2	India and South Asia 268
Chapter 3	The Southwest Asian Nexus 282

Chapter 4	India 'looks East'	290
Chapter 5	India as an Indian Ocean Power	318
Conclusion		337
Bibliography		361
Index		397

Acronyms and Abbreviations

AA	Anti-aircraft
AAGSP	Ali Assam Gana Sangram Parishad
AASU	All Assam Students Union
ACDA	Arms Control and Disarmament Agency
ADA	Aircraft Development Authority
ADB	Asian Development Bank
AEC	Atomic Energy Commission
AIADMK	All India Anna Dravida Munnetra Kasagham
AIDS	Auto immune deficiency syndrome
ALH	Advanced light helicopter
AMM	Anti-missile missile
ANURAG	Advanced Numerical Research and Analysis Group
APEC	Asia Pacific Economic Cooperation
APSOH	Advanced Panoramic Sonar Hull-Mounted
ARC	Aviation Research Centre
ASEAN	Association of South East Asian Nations
ASIC	Application specific integrated circuit
ASLV	Augmented Satellite Launch Vehicle
ASWAC	Airborne surveillance warning and control
ATV	Advanced Technology Vessel
ATVDO	Advanced Technology Vessel Development Organisation
AWAC	Airborne warning and control
BARC	Bhabha Atomic Research Centre
BE	Bharat Electronics Limited
BE	Budget estimate
BJP	Bharatiya Janata Party
BKU	Bharat Kisan Union (Indian Peasants Union)
BSF	Border Security Force
C ³ I	Command, control, communications and intelligence
CAD/CAM	Computer assisted design/computer assisted manufacture

CENCOM	Central Command
CENTO	Central Treaty Organisation
CEP	Circular error probability
CFCs	Chlorofluorocarbons
CIA	Central Intelligence Agency
CINCPAC	Commander-in-Chief Pacific
CIWS	Close-in weapons systems
COCOM	Coordinating Committee on Export Control
CPI	Consumer price index
CPI-M	Communist Party of India (Marxist)
CRPF	Central Reserve Police Force
CRS	Congress Research Service
CSIR	Council for Scientific and Industrial Research
CTOL	Conventional take-off and landing
CWC	Chemical Weapons Convention
D&D	Design and development
DAE	Department of Atomic Energy
DEAL	Defence Electronics & Applications Laboratory
DPSU	Defence Public Sector Undertakings
DRDL	Defence Research & Development Laboratory
DRDO	Defence Research and Development Organisation
DWT	Deadweight tonnage
EC/EEC	European Community
ECIL	Electronic Corporation of India Limited
EEZ	Exclusive economic zone
ELINT	Electronic intelligence
EPZ	Export processing zone
EW	Electronic warfare
FPA	Focal plane array
FSAPDS	Fin stabilised armour piercing discarding sabot
GaA	Gallium arsenide
GATT	General Agreement on Tariffs and Trade

GDP	Gross domestic product
GNP	Gross national product
GPS	Global positioning system
GSLV	Geo-Synchronous Launch Vehicle
HAL	Hindustan Aeronautics Limited
HDI	Human Development Index
HF	High frequency
HMS	Her Majesty's Ship
HYV	High yield variety
IAF	Indian Air Force
IC	Integrated circuit
ICBM	Intercontinental ballistic missile
IDSA	Institute for Defence Studies and Analysis
IGMDP	Integrated Guided Missile Development Program
IISS	International Institute for Strategic Studies, London
IIT	Indian Institute of Technology
IMF	International Monetary Fund
INSAT	Indian national satellite
IRBM	Intermediate-range ballistic missile
IRDP	Integrated Rural Development Program
IRS	Indian remote sensing satellite
ISI	Inter-Services Intelligence Directorate (of Pakistan)
ISRO	Indian Space Research Organisation
ITBP	Indo-Tibetan Border Police
JKLF	Jammu & Kashmir Liberation Front
JVP	Janata Vimukthi Peramuna (People's Liberation Front)
KGB	Komitet Gosudarstvennoy Bezopasnosti (USSR Committee for State Security)
LCA	Light Combat Aircraft
LCU	Landing craft, utility
LSM	Landing ship, medium
LST	Landing ship, tank

LTTE	Liberation Tigers of Tamil Eelam
MBT	Main battle tank
MEA	Ministry of External Affairs
MI	Military intelligence
MIDHANI	Mishra Datu Nigam Limited
MIMD	Multiple instruction multiple data
MIRV	Multiple independently targetable re-entry vehicle
MOD	Ministry of Defence
MOU	Memorandum of Understanding
MR	Maritime reconnaissance
MT	Million tonnes
MTCR	Missile Technology Control Regime
NAFTA	North American Free Trade Agreement
NAL	National Aeronautical Laboratory
NAM	Non-Aligned Movement
NASA	National Aeronautics & Space Administration
NEP	New Education Policy
NIC	Newly industrialised country
NPT	Nuclear Non-Proliferation Treaty
NRR	Net reproduction rate
NSCS	National Socialist Council of Nagaland
NWFP	North-West Frontier Province
OECD	Organisation for Economic Cooperation and Development
OIC	Organisation of Islamic Countries
ONGC	Oil and Natural Gas Commission
OPEC	Organisation of Petroleum Exporting Countries
PAC	Provincial Armed Constabulary
PACE	Processor for Aerodynamic Computations and Evaluation
PAF	Pakistan Air Force
PDC	Potential defence capacity
PLA	Peoples' Liberation Army
PM	Prime Minister

PNE	Peaceful nuclear explosion
POL	Petroleum, oils and lubricants
PPP	Pakistan People's Party
PREFRE	Power Reactor Fuel Reprocessing Plant
PSLV	Polar Satellite Launch Vehicle
PWG	People's War Group
PWR	Pressurised water-cooled reactor
R&D	Research and development
RAF	Rapid Action Force
RAMID	Re-organised Army Mountain Infantry Division
RAPID	Re-organised Army Plains Infantry Division
RAW	Research and Analysis Wing
RE	Revised estimate
RPV	Remotely piloted vehicle
RSS	Rashtriya Swayamsevak Sangh
RTUNE	Research & Training Unit of Navigational Electronics
S&T	Science and technology
SAARC	South Asian Association for Regional Cooperation
SAC	Scientific Advisory Committee
SAM	Surface-to-air missile
SEANWFZ	Southeast Asian Nuclear Weapons Free Zone
SEATO	South East Asian Treaty Organisation
SERC	Supercomputer Education and Research Centre
SIGINT	Signals intelligence
SIPRI	Stockholm International Peace Research Institute
SLAR	Side-looking airborne radars
SLCM	Submarine-Launched Cruise Missile
SLOC	Sea lines of communication
SLORC	State Law and Order Restoration Committee
SLV	Satellite Launch Vehicle
SROSS	Stretched Rohini Satellite Series
SSBN	Nuclear ballistic missile submarine

SSN	Nuclear powered, hunter-killer submarine
STP	Software technology park
TADA	Terrorism and Disruptive Activities Act
TISCO	Tata Iron and Steel Company
UK	United Kingdom
ULFA	United Liberation Front of Asom
UNESCO	United Nations Educational Scientific & Cultural Organisation
UNHCR	United Nations High Commission for Refugees
UP	Uttar Pradesh
US	United States
USA	United States of America
USSR	Union of Soviet Socialist Republics
VAT	Value added tax
VHF	Very high frequency
VLF	Very low frequency
VSTOL	Vertical/short take-off and landing
WPI	Wholesale price index

List of Figures, Tables and Maps

Figures	page
Figure 1.1: Percentage of foreign collaborations by country and by sector of collaboration between 1981 and 1987.	27
Figure 1.2: Domestic and export sales of Indian software, 1988 to 1991-92, in crore rupees.	35
Figure 1.3: Saleable steel production in India in million tonnes, 1951-1991, and anticipated demand and production to the year 2000.	59
Figure 1.4: Value of arms production in India as a percentage of total defence expenditure, 1963-64 to 1988-89.	64
Figure 1.5: R&D expenditure (not including DPSUs) as a percentage of total defence spending in crore of rupees, 1982-83 to 1992-93.	67
Figure 1.6: India's major arms suppliers, 1951-1985	72
Figure 1.7: Imports and exports between 1987-88 and 1990-91, in crore of rupees.	118
Figure 1.8: Consumption, investment and government spending as a percentage of GNP, 1960-61 to 1990-91.	119
Figure 1.9: Comparative defence expenditures and military force levels, China, India and Pakistan	124
Figure 2.1: Population projections for South Asian nations and China.	168
Figure 2.2: HDI rankings for South Asia and China, 1990.	169
Figure 3.1: Numbers of Indian and Pakistani guest workers in the 'Middle East', 1975-1985.	283
Figure 3.2: India's direction of trade: changes between the Sixth Plan and the Seventh Plan.	291

Figure 3.3:	India's foreign trade with ASEAN nations, 1979-1992.	296
Appendix 1:	The foreign purchase by type of weapon, 1979-90.	358

Tables

Table 1.1:	Cumulative foreign investment in India, 1981-1990	21
Table 1.2:	Rise in total expenditure on S&T as a percentage of GNP and private sector spending on S&T expressed as a percentage of public sector spending, 1950-1990.	25
Table 1.3:	Commercial nuclear reactors in India	41
Table 1.4:	Per capita recoverable energy reserves in India and selected countries.	56
Table 1.5:	Steel production in selected countries in 1987	60
Table 1.6:	Percentage Soviet origin of some major systems in the Indian armed forces	73
Table 1.7:	Value of orders for defence production filled by private industry	80
Table 1.8:	Defence expenditure not normally attributed to the defence head 1991-92.	126
Table 1.9:	Indian defence expenditure in current prices, GNP at current prices, defence expenditure inflated to include items not in the official statistics and defence expenditure as a percentage of GNP, 1981-82 to 1993-94 (crore of rupees).	127
Table 1.10:	Change in real defence spending, by percent, expenditure on hard currency exchange as a percentage of total defence spending, and 'loss' attributable to fall in value of the rupee over the previous year, expressed as a percentage of total current spending, 1981-82 to 1991-92.	128

Table 1.11:	Division of resources between the three forces, with percentage share of total attributed defence spending in parentheses, 1985-86 to 1992-93.	129
Table 1.12:	Expenditure on capital, capital expressed as a percentage of total current spending, and real percentage increases and decreases in capital spending and total spending, 1981-82 to 1992-93.	132
Table 2.1:	Social expenditure compared with military expenditure for South Asia and China.	170
Table 2.2:	Education: Gross participation rates by age cohort for selected Asian Countries, by percent.	171
Table 2.3:	Population and growth rates of major South Asian cities, with projections to the year 2000.	183
Table 3.1:	Present and projected numbers of major vessels in the Indian navy.	322

Maps

Map 1:	India and the Indian Ocean Region	xxii
Map 2:	Areas of disturbance in South Asia.	158
Map 3:	India: differential population growth rates by state, as at the 1991 census.	167
Map 4:	Ethnic groups and international borders in South Asia	176
Map 5:	Density of tribal population of India.	178
Map 6:	Location of Afghan refugees in Pakistan.	180
Map 7:	Maritime and communication facilities to the West of India.	328
Map 8:	Maritime and communication facilities to the East of India.	329

Preface

The fall of the Soviet Union and the ending of the Cold War came as a shock to an international system that had grown used to assessing a nation's power in terms of ships, tanks and nuclear warheads. In a less public way, commentators also assumed that India's rise as a regional power in the Indian Ocean was simply a manifestation of its gathering arsenal of sophisticated weapons. Thus even the Pentagon, with all the resources at its command, predicted a near certain and *imminent* rise to power for India in the Indian Ocean region.

As with the Soviet Union, it was a little noticed fact that the Indian polity was under stress, that India's traditional macroeconomic stability was being dangerously eroded, or that the somewhat grandiose blueprints of the Indian defence planners, such as the so-called Twenty Year Naval Development Plan of 1978, which planned for a fleet of hundreds of major vessels by the year 2000, were virtually impossible to implement, even in the most favourable economic circumstances.

The failure of the body of analysis predicting the imminent rise of India as a major power in the Indian Ocean has had the effect of making analysts point to China, rather than India, as the somewhat worrying emerging force in the Asia-Pacific region. India, in contrast, is now perceived to be burdened by political chaos, economic crisis and regional instability. Far from being a new power in the Indian Ocean region, it is perceived by some to be in danger of breaking up.

This sudden reversal in perceptions about India should teach the hapless commentator a number of lessons. The first is that the mix of chance, societal pressures, resource issues, reservoirs of national will, quality of leadership, geopolitics and geostrategy that are involved in the assessment of any nation's rise to power, but especially one as large, diverse and complex as India, is simply too volatile for us ever to approach in any way other than gingerly.

A second, related, point is that the study of the place of nations in the international system must in essence be an inter-disciplinary pursuit. The discipline of 'strategic studies' is only one of a number of tools that we require, the others lying in the realms of politics, history, sociology, anthropology and economics, to name but some. In short, we need to go well beyond any simple accounting of the raw apparel of military power.

But in our quest for deeper understanding, we should also avoid falling victim to the 'paradox of focus', according to which, the narrower and deeper our focus on an issue or subject and the more detailed our knowledge

about it, the more complicated and inter-dependent with the 'seamless web' it apparently becomes. All good writing should be part of a dialogue towards greater understanding, and unless we are willing to chance our arm and to simplify sufficiently to draw at least some 'useful' conclusions, we are not true participants in that dialogue.

This work is written with the need to simplify and to expand beyond purely strategic issues in mind. As such, it is bound to prove unsatisfying both to academic purists engaged in the study of India and to those seeking the kind of quick and plain speaking direction for the conduct of policy that has become the perceived need of modern 'fast track' societies. For that I make no apology.

A third lesson that we need to keep in mind is that, in today's fast-moving world, the 'big book', which can often take years to write, edit and print, is increasingly taking on the character of a 'blunt instrument'. One has particular sympathy for those who were engaged in writing such books about the future of the Soviet Union in the years prior to its collapse. I have endeavoured to ensure that the data, information and analysis contained in this book are as current as possible. But especially in the context of a nation such as India, there is no accounting for the unexpected.

Over the years that I have worked on this project in Australia I have received help and kindness from a great many people. I would like to thank Professor Desmond Ball who, as Director of the Strategic and Defence Studies Centre at the Australian National University, gave me the opportunity to undertake the work and subsequently provided valuable advice along the way. Professor Paul Dibb, the current Director of the Centre, has been unfailingly helpful and sympathetic to my needs. He also has been free with his advice, despite his busy schedule. I would also like to thank Jena Hamilton, who provided first rate assistance with research and word processing, Keith Mitchell for his attention to detail in preparing the maps and charts and Robin Jeffrey, who read an early draft and provided highly valued comments. And I would like to thank Helen Hookey, Tina Lynam, Karen Smith, Elza Sullivan, Helen Wilson and my other colleagues at the Strategic and Defence Studies Centre. Additionally, I would like to thank the Hon. Kim Beazley, Coral Bell, Meredith Borthwick, Dipesh Chakrabarty, Brahma Chellaney, Graham Feakes, Ranajit Guha, Stuart Harris, Stephen Henningham, K.P. Kalirajan, Gary Klintworth, Krish Krishnan, Andrew Mack, John McGuire, Ken McPherson, Peter Reeves, Ric Shand, Ranbir Talwar, Stewart Woodman, Marika Vicziany and all my other colleagues in Australia who have lent advice and support for this enterprise over the years. The faults are, of course, my own.

In India I have received much help from a great many people over many years. Let me single out from amongst them Manoj Joshi, Air Commodore Jasjit Singh, Bharat Varma, Bishwant and Ashima Chaudhuri, Muni and Arvind Kaul, Ram Subramanian, General Bannerji and all the academic and general staff at IDSA, David Evans, Pera Wells, Bob Dagworthy, Michael Woods, and all my Indian friends at the Australian High Commission.

I would also like to thank the Department of Defence, whose financial support made this work possible.

And finally, I would like to thank my wife, Sue, for living with this enterprise over the years.

Map 1: India and the Indian Ocean region