

Hriday Chandra Sarma

Renewables vs. Fossil Hegemony in the Early 21st Century

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Point-source discharge of greenhouse gases

Source: https://commons.wikimedia.org/wiki/File:Air_pollution_by_industrial_chimneys.jpg



Wind Power Plant.

Source: <https://commons.wikimedia.org/wiki/File:Windpark-Wind-Farm.jpg>

21st Century choice: Look after our planet and it will look after us, or don't and face the consequences.

Phil Harding,
a British field archaeologist best known to the public as a
member of Channel 4's *Time Team* series.

There must be a better way to make the things we want, a way that doesn't spoil the sky, or the rain or the land.

Paul McCartney,
a British vocalist, songwriter, composer, bass guitarist, poet and painter,
best known for his work with the English rock band *The Beatles*.

By speeding the transition to cleaner energy, we can improve the lives of billions of people, while also reducing the risks we face from a changing climate.

Michael Bloomberg,
an American businessman, philanthropist and former mayor of
New York City, best known as the founder of Bloomberg L.P.

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Preface

This book is a revised and reworked version of my doctoral thesis, *“The Role of State, Private Sector and Local Community in Energy Transition from Fossils to Renewables, 2004–2015”* (Jawaharlal Nehru University, 2021). While retaining the core empirical findings and analytical framework, this volume simplifies, condenses and reframes the argument for a wider readership. It situates the analysis within broader debates on sustainability, governance and socio-technical change.

The transition from fossil fuels to renewable energy is an unprecedented shift shaped by structural, social and institutional dynamics. This process, informed by the vision of ‘Sustainable Energy for All,’ demands more than technological innovation; it requires addressing availability, equity, governance and global interdependence. The interactions between states, local communities and private actors determine the pace and character of change; as such, this book applies the Multi- Level Perspective (MLP) to examine these dynamics. In doing so, it contributes to consolidating the socio-technical framework as a tool for understanding contemporary energy transitions.

The book builds on a local-to-global vision by examining renewable energy transitions in Denmark, Brazil and India. Denmark’s community-led wind cooperatives demonstrate how grassroots engagement embeds democratic ownership and long-term sustainability. In Brazil, hydropower continues to dominate under state leadership, while emerging renewables navigate complex institutional landscapes. In India, private enterprises drive solar adoption, influencing markets and policy. Together, these cases show that energy transitions are socio- technical and political processes, shaped by human agency and institutional choices as much as by technological innovation.

These findings highlight the power of co-partnership on a level playing field: when states, communities and businesses collaborate, energy transitions become more equitable and resilient. Ultimately, readers will see how multi-stakeholder coordination, local empowerment and strategic governance can transform energy systems and offer insights for achieving a sustainable and inclusive energy future. At its heart, this book is a story about people—how the choices, actions and collaborations of individuals, communities and institutions collectively shape the energy future of our planet.

Acknowledgement

I dedicate this research to my beloved father, Lt. Kali Prasad Sarma, in gratitude for his unwavering support throughout my life. His belief in my ability to excel in my professional career and his constant moral encouragement made the successful completion of this study possible.

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Last but not least, I wish to express my gratitude to *ibidem*-Verlag and the support from its editorial staff— specially Christoph Ohlwärther and Jana Dävers—for enabling me to publish this book and share my ideas with a global audience. It is my firm belief that these insights will be widely adopted by policymakers across both the Global South and the developed world.

I further acknowledge that the photographs, figures, graphs and other visual materials included in this book have been drawn from public-domain materials, open-access repositories, or other publicly available non-profit sources where such use is permitted. Wherever material from identifiable third-party sources has been reproduced or adapted, I have provided appropriate citation and acknowledgment in accordance with accepted academic standards. I gratefully recognize the work of the original creators and institutions whose contributions have supported and enriched this publication.