# JUST TRANSITION IN INDIA

An inquiry into the challenges and opportunities for a post-coal future

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### **FOREWORD**

The world today stands at a critical juncture where our scientific and technological progress, and trajectories of economic growth are being challenged by the planetary boundaries.

Among them the most significant threat is that of climate change. The amount of greenhouse gas emissions (GHG) the atmosphere can hold is rapidly approaching the tipping point. The report of the Intergovernmental Panel on Climate Change (IPCC) in 2018 is a clarion call for action for all those who believe in science and humanity.

While fossil fuel sources dominate our primary energy supply, we cannot afford to continue further in this pathway. It is time for us to start moving away in a carefully planned fashion from coal.

A transition away from coal will certainly not be an easy task for India, a country with nearly 250 years of coal history. Through decades, coal has not just become the backbone of our industrial growth and energy security, it has become part of the cultural history of coal mining areas, where people's lives and livelihoods have been shaped by the coal industry. A life without coal is, therefore, impossible to envision in coal-bearing areas.

However, what seems impossible to achieve, can always be a possibility, if we change our mindset. Because when we do that, it allows us to ask challenging questions. And once we are ready to ask those questions, we think of innovative pathways through which the seeming impossible becomes achievable.

A transition away from coal demands such change in mindset, which in turn would propel innovations. We will need innovations in technology, in policy, in planning and overall, in our approach of dealing with a challenge of this scale, and the change we are envisioning. In short, we will need to re-invent the system totally, which I call as total innovation.

A just transition framework, which this book proposes, provides an architecture for such innovations recognising the urgency of climate action. While the climate crisis constitutes the basis of this research, the book provides an objective assessment of the social and economic realities of the coal mining areas and its people. The analysis on one hand recognises the importance of coal, whereas on the other hand, tries to identify pathways to move away from coal dependence, considering opportunities in hand and those that can be harnessed.

The idea of a just transition, in fact, is complimentary to the energy transition that India has already embarked on and is progressing rapidly. This is because the growing share of renewable energy in electricity and other forms of energy supply will automatically drive down the demand for coal mining in the coming years. This will worsen poverty and deprivation in India's coal mining regions, which many of them are burdened with. Energy transition, therefore, will cause deprivation in the coal mining areas, if a just transition is not considered simultaneously.

I hope this book will make a meaningful contribution towards future research on just transition in the context of India and the global South, and will guide climate change, energy and mining policies, that are innovative, sustainable and socially just.

> Raghunath Anant Mashelkar, FRS National Research Professor