

INFORMAL MANUFACTURING AND ENVIRONMENTAL SUSTAINABILITY

A Global Perspective

Edited by

MIHIR KUMAR PAL • PINAKI DAS



Informal Manufacturing and Environmental Sustainability

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INVESTOR IN PEOPLE

To our beloved students for inspiring the future

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Foreword

In the contemporary discourse of inclusive and sustainable development, the intersection of informal manufacturing with environmental sustainability emerges as both a challenge and an opportunity of unparalleled significance. In this perspective, the book entitled, 'Informal Manufacturing and Environmental Sustainability: A Global Perspective' arrives as a timely and important contribution to our understanding of this complex nexus. As the invited author to pen this book foreword, I am both honoured and humbled to introduce a work that encapsulates the essence of global efforts to harmonise inclusive development with ecological sustainability. A comprehensive and interconnected collection of chapters in the book also provides useful directions for future research along with fine-tuning of existing policies and institutions.

The editors, Professor Mihir Kumar Pal and Professor Pinaki Das, have curated a volume that stands distinct for the depth, breadth and diversity of perspectives and issues in its coverage. Through meticulous and logical organisation of the book into four distinct yet interconnected parts, they have comprehensively interlaced a narrative that captures the multifaceted relationships between informal manufacturing sector and the environment. This book is not merely an academic exercise. It is also a clarion call for necessary interventions and reflections on the part of policymakers, industry stakeholders, academicians and civil society along with the people at large.

The contributors to this volume, hailing from varied geographical and disciplinary backgrounds, bring forth insights based on rigorous research and enriched with varied local contexts and dynamics. The chapters serve as a testament to the global nature of the challenges at hand, while also highlighting the local level intervention strategies that hold the potential for a broader applicability. From the emerging markets of Lagos (Nigeria), to the informal manufacturing heartlands of India and Bangladesh, this book takes readers on a journey through the landscapes of this important sector, revealing the inherent possibilities for inclusive and sustainable industrial transformation.

What sets this volume apart is its unwavering focus not only in delineating the problems, but also elucidating the pathways towards inclusive and sustainable solutions in the contemporary development discourse. In addressing the environmental impacts of informal manufacturing, the book focuses on the complexities of policymaking, technological innovation, gender empowerment and community participation. It also advocates for a holistic approach that recognises

the interconnectedness of economic growth, inclusiveness and environmental sustainability.

As the world grapples with the dual imperatives of advancing economic development and ensuring environmental sustainability, the insights offered in this book are more relevant than ever. The 2030 Agenda for Sustainable Development, with its well-defined Sustainable Development Goals (SDGs), provides a global blueprint for necessary interventions. In this connection, the book 'Informal Manufacturing and Environmental Sustainability: A Global Perspective' contributes to this global agenda by highlighting the critical role of the informal sector – a sector that requires greater emphasis on mainstream discourses of inclusive and sustainable development.

In closing, I would like to commend the editors and contributors for their efforts in bringing this book to fruition. Their collective works not only enrich our understanding of the related issues and dynamics, but also inspires hopes and actions towards a more sustainable and equitable world. Thus, the ideas and analyses presented in the book will provide useful insights in respect of both future research and policies. May this volume serve as an encouragement, guiding the readers towards innovative strategies and interventions for sustainable development in informal manufacturing and beyond!

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Preface

In a world increasingly defined by the push and pull between economic growth and environmental stewardship, the informal manufacturing sector stands at a unique crossroads. This sector, vibrant with activity, serves as the backbone of economies, particularly in developing and emerging nations. Yet, it navigates the complexities of sustainability and environmental impact, often outside the formal regulatory frameworks that guide its formal counterparts. 'Informal Manufacturing and Environmental Sustainability: A Global Perspective' illuminates this critical, yet underexplored, terrain where economic livelihoods intersect with environmental challenges, offering fresh insights into a global issue that touches millions of lives.

The genesis of this volume lies in a simple, yet profound realisation: the informal manufacturing sector, despite its significant contributions to global economies, remains largely overlooked in academic and policy discussions on environmental sustainability. This oversight not only underestimates the sector's impact on the global environmental landscape but also overlooks the potential pathways to harmonising economic activities with sustainable practices. The present volume aims to bridge this gap. It endeavours to bring to the fore the intricate dynamics of informal manufacturing, highlighting both its economic indispensability and its environmental footprints. By offering a global perspective, it sheds light on the diverse challenges and innovative sustainable practices emerging within this sector across different geographies.

Moreover, the rationale for this book is anchored in the urgency of the times we live in. As the world grapples with escalating environmental crises and strives towards the Sustainable Development Goals (SDGs), understanding and integrating informal manufacturing into the sustainability discourse is not just relevant but necessary. Through this publication, we seek to catalyse a more inclusive and comprehensive approach to environmental sustainability, one that recognises the nuances of informal manufacturing and leverages its potential for positive change.

This volume is conceived as a timely and significant contribution to the discourse on sustainable development. It aims to foster a deeper understanding of the role of the informal manufacturing sector in global economies and its critical relationship with the environment, paving the way for policies, research and practices that embrace sustainability at their core.

The informal manufacturing sector, often termed as the unorganised sector, encompasses a vast and diverse portion of the global economy, operating beyond formal regulatory confines. This sector includes a variety of activities such as

handicrafts, cottage industries, micro-enterprises, small-scale industries and home-based production. It plays a pivotal role in offering employment, income and livelihood opportunities to millions, particularly in developing and emerging countries. The International Labour Organization (ILO) highlights its significance, as it contributes 15% of global GDP and 60% of the global workforce. With over 500 million workers employed in informal manufacturing, it represents a substantial share of manufacturing employment across different income levels – 80% in low-income, 60% in lower middle-income and 40% in upper middle-income countries (ILO, 2013).

In some emerging economies, informal manufacturing plays a significant role in the industrial sector. For instance, in 2015–2016, it accounted for 84.4% of the total manufacturing employment and 24.6% of the total manufacturing output in India. The respective proportions in China were 41.3% and 15.9% and Brazil 26.1% and 10.5%. The unorganised manufacturing employment is more prevalent in Southern Africa than in Latin America with Angola having the highest share of unorganised manufacturing employment (87.6%), followed by Zimbabwe (78.3%) and Zambia (75.4%). Among the Latin American countries, Venezuela has the highest share (52.7%), followed by Argentina (47.8%), Colombia (47.3%), Mexico (38.5%) and Uruguay (34.3%) (ILO: Statistics on Informal Economy). According to the 2022 World Bank report, informal enterprises account for one-third of all enterprises in the manufacturing sector in emerging market and developing economies (EMDE). That is a significant portion of employment has been generated in unorganised manufacturing in numerous countries in the world. Despite employment and income, the informal manufacturing also offers some opportunities and benefits, such as contributing to local economic development and social inclusion; enhancing innovation and entrepreneurship; promoting cultural diversity and traditional skills; reducing dependence on imports and foreign exchange; and engaged poor and marginalised people (Das et al., 2021; Das & Dandapat, 2021; Ganguly, 2018; Marjit & Kar, 2009; Rani & Unni, 2004).

However, the unorganised manufacturing also poses serious environmental challenges, as it often relies on inefficient and polluting technologies, consumes large amounts of natural resources, generates high levels of emissions and wastes and lacks adequate environmental management and compliance mechanisms with environmental standards and regulations. These environmental impacts not only affect the health and well-being of the workers and communities involved in informal manufacturing, but also undermine the long-term sustainability of the sector and the economy as a whole (Saget et al., 2022). The high incidence of informal in manufacturing is also a major challenge for the realisation of decent work for all and sustainable and inclusive development (Das et al., 2022, 2023; Pal, 2023). Therefore, informal manufacturing is a vital component of the global economy that requires appropriate policy interventions and support from various stakeholders, such as governments, civil society, private sector and international organisations. Moreover, in the context of sustainable development, which aims to balance the economic, social and environmental dimensions of human progress, there is an urgent need to address the environmental challenges and opportunities of informal manufacturing.

This volume aims to explore the intricate dynamics of informal manufacturing and its environmental implications within the framework of sustainable development. The edited volume sets forth several objectives: (a) To offer a comprehensive overview of the informal manufacturing sector's current state and environmental impacts worldwide, with an emphasis on developing and emerging economies; (b) To analyse the sector's growth, productivity, efficiency and competitiveness, exploring the causes and consequences of environmental pollution and examining energy emissions and intensity; (c) To investigate the drivers and barriers to environmental performance and innovation within the sector, identifying factors that facilitate the adoption of cleaner production technologies and practices; and (d) To highlight best practices, policies and perspectives that support informal manufacturing within a green economy framework, providing policy recommendations and directions for future research and action.

The volume is meticulously structured into four distinct parts, each delving into different facets of informal manufacturing and its interplay with environmental sustainability. This structure is designed to guide readers through a comprehensive exploration of the sector, from foundational theories to practical solutions for fostering a greener economy. Below is an overview of the key themes and focus areas of each part.

Conceptual and Theoretical Framework (Part I) is the initial section which lays the groundwork for understanding the complex relationship between informal manufacturing and sustainable development. It introduces readers to the essential concepts and theories that elucidate the impact of informal manufacturing on the environment and global economy. Topics covered include the application of indigenous technology in promoting sustainable development, the effects of foreign capital inflow on informalisation and the relevance of optimal-growth theory to environmental sustainability. This part serves as a critical foundation for the discussions that follow, framing informal manufacturing within the broader discourse on sustainability.

Nature of Growth and Productivity of Informal Manufacturing, part II, shifts focus to the economic dimensions of informal manufacturing, examining growth dynamics, productivity trends and their implications for sustainable development. Through a series of detailed analyses, this section sheds light on the characteristics and growth patterns of informal enterprises across various regions, with a particular emphasis on the food and beverage sector in India. It also tackles the impact of external factors like the COVID-19 pandemic on job displacement within the sector, providing insights into the resilience and vulnerabilities of informal manufacturing.

Part III, one of the book's central themes, addresses the Environmental Pollution of Informal Manufacturing Enterprises. This part explores the environmental challenges associated with informal manufacturing. It discusses the sector's reliance on polluting technologies, resource consumption and the consequent emissions and waste generation. This section delves into the governance and sustainability challenges faced by informal enterprises and the communities around them, highlighting the need for effective environmental management and compliance with standards to mitigate pollution and enhance sustainability.

Part IV, the concluding part of the book, focuses the Drivers, Barriers, Solutions and Best Practices, and it integrates informal manufacturing into a green economy. It examines the drivers and barriers to environmental performance and innovation in the sector, showcasing successful examples of cleaner production technologies and sustainable practices. This part aims to inspire action by presenting best practices, policy recommendations and perspectives on promoting environmental sustainability within informal manufacturing, encouraging a collaborative effort among stakeholders to achieve sustainable and inclusive development.

Part I introduces readers to the foundational theories and ethical considerations underpinning the relationship between informal manufacturing and global sustainable development. This section unfolds through six meticulously crafted chapters, each contributing to a nuanced understanding of the informal economy's impact on global sustainability from diverse perspectives.

Chapter 1 by Begum Sertyesilisik delves into the 'Impacts of the Informal Economy on Global Sustainable and Inclusive Development'. Through a thorough literature review, Sertyesilisik investigates the informal economy's multifaceted influence from political, economic and ethical lenses. The exploration reveals the sector's substantial effect on fair competition, circular economy and socio-economic dynamics, culminating in robust recommendations for fostering global sustainable development by curbing the informal economy's negative repercussions.

Chapter 2, presented by Abu Aminu and Kediehor Collins, focuses on 'Leveraging Indigenous Technology in Nigeria's Informal Manufacturing Sector'. This chapter paints a vivid picture of how indigenous technology serves as a linchpin for sustainable development within Nigeria. Aminu and Kediehor argue for the modernisation of indigenous practices to combat environmental challenges, thereby positioning the informal sector as a leader in Africa's sustainable transformation.

In Chapter 3, Akash Dandapat, Pinaki Das and Soumita Dasgupta offer an insightful analysis titled 'Foreign Capital Inflow and the Expansion of Subcontracting in the Informal Manufacturing Sector'. Through a general equilibrium approach, this chapter dissects the nuanced ramifications of Foreign Direct Investment (FDI) in India, emphasising how FDI-induced subcontracting bolsters the informal sector, thereby advocating for policies that nurture this synergistic relationship.

Chapter 4 by Mainak Bhattacharjee, *Informal Economy and Environmental Sustainability: An Optimal-Growth Theoretic Analysis*, bridges theoretical economics with environmental sustainability. Bhattacharjee crafts a compelling argument regarding the dynamic instability brought about by partial environmental regulations, suggesting a comprehensive policy outlook that includes the informal sector.

Chapter 5, *Green Innovation Management for Economic Benefits through Green Enterprises*, penned by José G. Vargas-Hernández, Muhammad Mahboob Ali and Jorge H. Zamudio-Abdala, champions green innovation as a crucial driver for economic and environmental harmony. The authors make a case for

enhancing green enterprises worldwide, underlining the role of green innovation in navigating the challenges of environmental degradation.

Chapter 6 explores Unconditional Cash Transfers, Environmental Degradation and Sustainable Livelihood in the informal economy through the lens of Nilavo Roy and Kausik Gupta. This chapter introduces a trade-theoretic perspective to critique the efficacy of Unconditional Cash Transfers (UCT) in safeguarding livelihoods amidst environmental degradation, presenting a nuanced examination of social protection policies in developing countries.

Together, these chapters lay a comprehensive groundwork that not only conceptualises the informal manufacturing sector's intricate ties with sustainability but also sets a scholarly discourse for the ensuing exploration in the book. Through these initial discussions, readers are equipped with a broad yet detailed framework, paving the way for deeper dives into specific challenges, opportunities and solutions in the realm of informal manufacturing and environmental sustainability.

Part II shifts focus towards the growth dynamics and productivity patterns within the informal manufacturing sector, providing an empirical lens through which the contributions and challenges of this sector to sustainable development are further explored. This section comprises four insightful chapters.

Chapter 7 by Mousumi Mitra, 'Growth Performance of the Unorganised Manufacturing Sector in India during 1984–1985 to 2015–2016 – An Activity Level Analysis', embarks on a comprehensive exploration of India's Unorganised Manufacturing Sector (UMS). Through NSSO unit-level data, Mitra meticulously categorises the diverse activities within UMS, assessing their growth in terms of employment, gross value added and labour productivity. This analysis not only underscores the heterogeneity and resilience of UMS under shifting policy regimes but also identifies the sectors that have been pivotal in generating new employment opportunities amidst economic liberalisation.

Chapter 8, presented by Debashruti Jana, Mihir Kumar Pal and Akash Dandapat, delves into the 'Pattern of Growth of Unorganised Food and Beverage Enterprises: An analysis across States of India'. Utilising NSSO survey data, this study paints a detailed portrait of the unorganised micro food and beverage enterprises' growth across major Indian states from 2010–2011 to 2015–2016. Highlighting the sectors' expanding footprint in terms of enterprises, employment and Gross Value Added (GVA), this chapter reveals a positive growth trend and emphasises the crucial role these enterprises play in India's socio-economic fabric.

Chapter 9, 'Informal Manufacturing Sector Job displacement due to COVID-19 Pandemic: Myth or Reality?' by Shrabanti Maity, Paramita Bakli and Snigdha Sarangi, investigates the pandemic's impact on India's informal manufacturing labour force. With a focus on male workers, this timely analysis utilises 'The Periodic Labour Force Survey' and other government reports to assess job displacement during the initial months of the COVID-19 lockdown. Through structural break analysis and Poirier's Spline function approach, the authors provide a nuanced understanding of the pandemic's short-term effects on employment within the informal manufacturing sector, offering policy insights for mitigating such crises in the future.

Chapter 10 by Susobhan Maiti and Chandrima Chakraborty, 'Total Factor Productivity Growth of Formal and Informal Manufacturing Industries in India: An insight from KLEMS Database', contrasts the productivity trends within India's formal and informal manufacturing industries over four decades. Using KLEMS data, this chapter presents a comparative analysis of total factor productivity growth across 10 industry groups, uncovering fluctuating growth rates and highlighting the divergent paths of productivity evolution in the formal and informal segments. This nuanced examination not only addresses concerns regarding the manufacturing sector's stagnant contribution to GDP but also signals potential directions for policy interventions aimed at revitalising manufacturing-led economic growth.

Part III embarks on a detailed examination of the environmental challenges posed by the informal manufacturing sector, presenting a series of in-depth analyses that draw on empirical data and theoretical insights to explore the sector's impact on pollution and sustainability governance. This section is comprised of six chapters, each contributing a unique perspective on the intricate relationship between informal manufacturing activities and environmental degradation.

Chapter 11, 'Environmental Impact on Informal Enterprises Ownership in Indian Cities' by Sabyasachi Tripathi and Jyoti Chandiramani, offers a pioneering investigation into how city-level environmental pollution influences the ownership structure of informal enterprises in India's metro cities. The study uniquely integrates micro (entrepreneurship-level) and macro (city-level) factors, including access to waste management facilities and vehicular emissions, to assess their effects on business ownership. The findings highlight a disproportionate risk to female-owned businesses due to environmental degradation, underscoring the critical need for enhanced infrastructure and gender-sensitive policymaking to support sustainable urban entrepreneurship.

Chapter 12, 'Pollution and Governance Challenges in Bangladesh's Informal Manufacturing', by Debasish Nandy delves into the environmental dilemmas confronting Bangladesh, a country grappling with industrial policy gaps and technological backwardness. Focusing on sectors like brick kilns and leather tanning, Nandy critiques the lack of environmental governance and its implications for achieving the Sustainable Development Goals (SDGs). This chapter calls for a concerted effort to enforce environmental regulations and promote industrial policy reforms to mitigate pollution in Bangladesh's rapidly growing informal sector.

Chapter 13, 'The Environment-Informal Economy Nexus in BRICS Economies', by Nilendu Chatterjee presents an empirical analysis of the environmental repercussions of informal economic activities within the BRICS nations, emphasising energy use and ecological footprints. Through sophisticated econometric techniques, Chatterjee reveals the long-term adverse effects of informal activities on environmental quality. The study advocates for the formalisation of informal activities, enhanced governance and the adoption of renewable energy sources as strategies for promoting green growth and sustainability.

Chapter 14, 'CO₂ Emission Intensity and Growth of India's Informal Manufacturing Enterprises', by Pinaki Das and Akash Dandapat investigates the correlation between the growth of informal manufacturing enterprises in India and their CO₂ emission intensity. Utilising National Sample Survey Organisation (NSSO) data, the authors uncover a significant relationship between enterprise growth status and emissions, highlighting the urgent need for energy efficiency and technological upgrades in the sector. The chapter emphasises the role of policy in facilitating a transition towards sustainable manufacturing practices.

Chapter 15, 'Environmental Degradation and the Informal Manufacturing Sector in Emerging Asian Economies', by Swati Sinha Babu and Sk Md Abul Basar examines the impact of informal manufacturing sector growth on environmental degradation across emerging Asian economies. Employing CO₂ emissions as an indicator, the study identifies a U-shaped relationship with informal manufacturing growth, challenging the Environmental Kuznets Curve hypothesis and signalling the need for tailored environmental policies.

Chapter 16, 'Reassessing the Environmental Kuznets Curve: Informal Manufacturing in Emerging Asian Economies', by Aparna Banerjee and DSParna Banerjee echoes the themes of Chapter 15, offering further empirical evidence against the Environmental Kuznets Curve hypothesis within the context of emerging Asian economies. Their analysis calls for a nuanced understanding of the links between informal manufacturing growth and environmental degradation, advocating for policies that balance economic development with ecological sustainability.

Part IV scrutinises the pathways and hurdles to integrating informal manufacturing sectors into the broader context of a green economy. Through five focused chapters, this section reveals innovative practices, regulatory challenges and transformative strategies aimed at fostering environmental sustainability and economic resilience. The chapters collectively provide actionable insights and underline the importance of community participation, technological innovation and policy frameworks in achieving sustainable development.

Chapter 17, 'The Challenge and Opportunity of Recycling in Lagos-Nigeria', by Duruji, Moses Metumara, and Asagba, Omolola Silva, shines a light on Lagos, Nigeria's efforts to manage nature-resistant materials like plastics. Despite existing policies to promote recycling, this chapter identifies gaps in implementation and effectiveness, advocating for more robust government action and private-public partnerships. This analysis underpins the critical role of extended producer responsibility and highlights the potential of recycling as a cornerstone for Lagos's environmental sustainability.

Chapter 18, 'Organizational Green Technological Innovation and Environmental Sustainability Regulations', explores the intersection of green innovation and regulatory frameworks. Authored by José G. Vargas-Hernández, Francisco J. González-Ávila and Omar C. Vargas-González, this chapter delves into how organisations can leverage green technologies to meet and surpass environmental standards. The discussion extends to the impact of government subsidies and the need for a symbiotic relationship between policy and corporate practices in steering the wheel of sustainable innovation.

Chapter 19, 'Empowering Women for Sustainable Development in West Bengal', by Shama Firdaush, Shiuli Baidya, Upali Bera and Satyanaryan Kumbhakar, presents an inspiring narrative on the role of women's entrepreneurship in promoting green growth. This chapter draws on primary data from West Bengal to assess the empowerment of women through micro-entrepreneurship. The findings underscore the environmental friendliness of entrepreneurial activities and highlight the pivotal role of education, asset ownership and entrepreneurship in enhancing women's empowerment, pointing to micro-enterprise as a vital engine for sustainable development.

Chapter 20, 'Tribal Community Participation in a Green Economy', delves into the indigenous practices of tribal communities, illustrating how their life principles and manufacturing activities align with the goals of a green economy and sustainable development. Authored by Swapan Kumar Maity and Golam Ahammad, this research underscores the inherent sustainability of tribal lifestyles and their contributions to environmental stewardship, advocating for government policies that recognise and bolster these community-led initiatives.

Chapter 21, 'Textile and Garments: Bangladesh's Path to a Green Economy', by Naman Mishra, Megha Jain, Palakh Jain and Nilanjan Chattopadhyay, focuses on the informal textile and garment sector in Bangladesh. Highlighting the sector's significant growth and its contributions to the nation's development, this chapter emphasises the need for sustainable practices within these industries. Recommendations for fostering green growth include technological advancements, talent development and macroeconomic policies that encourage environmentally sustainable methods, particularly in textiles and garments, a critical area for Bangladesh's economic trajectory.

As we conclude the introduction to 'Informal Manufacturing and Environmental Sustainability: A Global Perspective', we reflect on the journey that this book represents. It is a journey through the challenges and opportunities that lie at the intersection of informal manufacturing and the quest for environmental sustainability. Through the diverse perspectives and analyses presented in this volume, we hope to have illuminated the pathways towards integrating these sectors into the global sustainability agenda.

This book is an invitation to scholars, policymakers, practitioners and students to engage deeply with the themes of informal manufacturing and sustainability. It is a call to consider the nuanced realities of those who work within these sectors and to envision policies and practices that not only mitigate environmental degradation but also promote economic equity and social inclusion.

Looking forward, we hope that this book will inspire further research into the complex dynamics of informal manufacturing and its environmental implications. We envision a future where policymaking is informed by a nuanced understanding of these sectors, leading to innovative solutions that foster both economic vitality and ecological resilience.

In closing, 'Informal Manufacturing and Environmental Sustainability: A Global Perspective' aims to be an inspiration, guiding efforts towards a more sustainable and inclusive global economy. It is an evidence to the power of collaboration and shared knowledge in addressing some of the most pressing

challenges of our time. May this volume serve as a foundation for future endeavours in creating a sustainable world for generations to come.

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Foremost, we express our profound appreciation to Professor Pulak Mishra, Professor of Humanities and Social Sciences at the Indian Institute of Technology (IIT) Kharagpur, India, for his insightful foreword. His eloquent words set the tone for the rich discussions that follow, and his endorsement significantly elevates the stature of our work.

Our heartfelt thanks are extended to each author who has contributed to this volume. Your chapters, reflective of rigorous research and deep commitment to the subject, form the backbone of this book. Your willingness to explore the complex interplay between informal manufacturing and environmental sustainability has provided valuable insights that will undoubtedly influence both academia and practice.

The rigorous evaluation and constructive feedback from our reviewers have been instrumental in refining this publication. Your dedication to academic excellence and your detailed suggestions have enriched the quality of our collective work, ensuring its relevance and rigor. Your contributions have been invaluable, and we are deeply thankful for your involvement.

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In closing, we acknowledge that this book is the product of many hands and hearts. It represents a collective aspiration to advance our understanding of

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informal manufacturing within the context of global environmental sustainability. To all who have played a part in this endeavour, please accept our sincere gratitude. Your contributions have not only made this publication possible but have also helped to light the way for future research, policymaking and practical action in pursuit of a more sustainable and equitable world.

Mihir Kumar Pal
Pinaki Das

Part I

Conceptual and Theoretical Framework

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Chapter 1

Impacts of Informal Economy on the Glocal Sustainable and Inclusive Development and Sustainability: From the Political Economy and Ethics Perspectives

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Abstract

Based on an in-depth literature review, this chapter aims to examine impacts of informal economy on the glocal sustainable and inclusive development and sustainability from the political economy and ethics perspectives. This chapter examines drivers for and causes of the informal economy from the perspective of the sustainability's three pillars. Furthermore, this chapter examines opportunity cost of the informal economy. It highlights informal economy's impacts on fair competition, circular economy, factors of production, and socio-economic aspects. Furthermore, this chapter discusses the informal economy from an ethical perspective. It highlights informal employment, its impacts on sustainability, and sustainable and inclusive development. This chapter provides recommendations on how to enhance glocal sustainable and inclusive development, and sustainability through reduced informal economy and its adverse impacts.

Keywords: Informal economy; circular economy; sustainability; opportunity cost; fair competition; factors of production

1. Introduction

As informal economy (IE) covers market value through not formally registered activities (IMF, 2021), IE does not contribute to tax revenue (Deléchat & Medina, 2020) and includes economic activities within the scope of the informal institutional boundaries (Webb et al., 2013, p. 598).

IE has relatively significant share in the global employment. Approximately 60% of the global population works in the informal sector in emerging, developing, and advanced economies (IMF, 2021). For example, in Colombia, nearly half of working population earns their wages from the IE (Martinez et al., 2017). Furthermore, IE has significant share in many countries' economy. For example, in many developing countries significant share in their economy is not under the regulative control of their state (Harriss-White, 2010). Average IE share in Algeria's official GDP is 33.48% (Bennihi et al., 2021).

As informality is related with countries' growth speed, welfare, and inequality (e.g., gender inequality), drivers for informality and informality's impacts need to be identified/understood to act as a key for sustainable and inclusive development (IMF, 2021). Understanding the factors determining IE is important due to their influence on economic performance and development (Elbahnasawy et al., 2016). Identifying the main and sub-causes of IE can act as ingredient for establishment of effective and strategic policies to deal with the IE.

Addressing informality is needed for supporting inclusive economic development and reduction in poverty globally (Deléchat & Medina, 2020). Based on an in-depth literature review, this chapter aims to examine impacts of IE on sustainability, and glocal sustainable and inclusive development from the political economy and ethics perspectives.

2. Drivers for and Causes of the IE: From the Sustainability Perspective

There are many drivers for IE. Even if there are individuals and companies preferring to operate informally, majority of workers work in the IE due to lack of opportunities in the formal sector (IMF, 2021). Companies avoiding taxation (Ahmad, 2021); individuals' lack of necessary education and skills for being employed in the formal economy (Deléchat & Medina, 2020); country-specific drivers (IMF, 2021); social exclusion and the incentives for individuals and companies to operate informally (IMF, 2021); tax level, trade openness, and institutional quality (Elgin & Oyvatt, 2013) are among the drivers for and causes of IE. Furthermore, drivers for the IE in the EU are related with regulatory quality, poor governance, and tax burden (Kelmanson et al., 2021). Main drivers for and causes of IE can be examined based on the three pillars of sustainability:

- (1) *The Economic Sustainability*: IE can play different roles in different economies. For example, in SMEs operating in the IE in developing economies can affect their countries' economies as they participate in/are involved in international business relationship (Ibidunni et al., 2020). Furthermore, Sen and Steer (2010)'s research on Vietnam revealed that informal institutions act as risk management mechanisms. There is a threshold by which reduction in informality and enhanced development can be observed and beyond this threshold increase in the informality can be observed revealing that benefits of reduced IE are higher at the relatively low development levels and large IE

(Wu & Schneider, 2021). Economic growth of the countries having intensive IE can be adversely affected as companies in the IE mainly have relatively low productivity and as they do not make tax payments (Deléchat & Medina, 2020; IMF, 2021). Furthermore, IE can obstacle fair competition between companies in the IE and companies in the formal economy. Even if IE can be perceived as if it provides advantages (e.g., cheap outputs supply potential), it can inhibit sustainable and inclusive development. Relatively low production costs in the IE, however, can be due to incompliance of the companies, their production processes, and their supply chains with many aspects/factors/laws and regulations including but not limited to legal employment requirements, workplace conditions, occupational health and safety requirements, and taxation fulfilment. In this way, IE can challenge sustainable and inclusive development as IE can have potential to harm ethical supply and ethical demand, and fair trade.

- (2) *The Social Sustainability:* People are among the stakeholders of the IE as they can take part in and be affected by the IE. IE can hinder and obstacle social sustainability. For example, as IE does not add to the tax revenues, IE can obstacle governments resource allocation to their people's needs (IMF, 2021). As IE does not generate tax revenue, it can obstacle countries' development and affecting investment in infrastructure and facilities needed for the well-being and welfare of their population. Furthermore, as significant share in various countries' economy is not under the regulative control of their state (Harriss-White, 2010) and as IE covers not formally registered activities (IMF, 2021), IE activities may not comply with relevant laws, regulations, standards. Incompliance of products and services supplied by the IE to the relevant laws, regulations, and standards can affect health and wellbeing not only of the people who bought them but also of their family, and friends who use these products and services. In other words, companies in the IE can endanger health and safety of the people who have bought/purchased their outputs and/or services as production processes and outputs of the companies in the IE are not being checked for their conformance to the laws, regulations, and standards. Furthermore, people working in companies operating in the IE can experience health and safety problems and/or encounter accidents due to risk of incompliance of workplace and health and safety conditions with the laws, regulations, and standards. Informal labor can hinder sustainable development (Deléchat & Medina, 2020). IE's incompliance to the relevant laws, regulations, standards, can adversely affect people working in the IE adversely as this incompliance can influence working conditions, employment conditions, and workplace conditions. For example, in the IE, work place conditions, and labor conditions which do not comply with countries' laws and regulations can cause people to work under indecent and unhealthy conditions adversely affecting and endangering their occupational safety, health, and wellbeing. IE might violate decent working conditions. Furthermore, informal labor tend to earn relatively less compared to formal labor as informal labor tend not to have social protection and well education (Deléchat & Medina, 2020; IMF, 2021). Even if they have similar skills, informal employees tend to

be paid relatively less compared to the formal employees; especially this gap widens between the informal and formal employment at low skill levels (Deléchat & Medina, 2020). Informal workforce can work cheaper and for pro-longed hours in the IE. Furthermore, child labor can be encountered in the employment profile of the IE. Child labor can be encountered in different forms including formal and informal agreements, legal and illegal work, domestic and non-domestic work (the European Commission, n.d.). Lack of official statistics makes it difficult to clearly understand state-of-the-art of these activities (the European Commission, n.d.). According to the European Commission (n.d.)'s DG Employment, Social Affairs and Equal Opportunities report, estimations reveal that approximately 3–3.5 million children, who are less than 15 years old, work. In compliance with the 2030 Development Goals “No one should be left behind” (OHCHR website, 2016), every child has right to be educated and every human being has the right to fulfill her/his capacity through equal opportunity in education. As entire humanity is responsible for each other and each human being is responsible for the others, children need to be provided equal education opportunities and chances to achieve the best of their capacity and performance to contribute to the global sustainable and inclusive development. Failure to do so can result in children's deprivation from education and their chance of being educated harming long-term sustainable and inclusive development of their countries and global sustainable and inclusive development. This failure can act as an inhibiting factor for the formal economy as it can foster informal employment. Individuals' lack of necessary education and skills for being employed in the formal economy (Deléchat & Medina, 2020) is among the drivers for/causes of informal economy. Women's overrepresentation in the IE is mainly due to their low education level (Malta et al., 2021). There is gender gap in the informal employment as relatively more women tend to be employed in the informal employment and especially in low-paid jobs in the informal employment than men (Deléchat & Medina, 2020; IMF, 2021) (e.g., women's informal employment in sub-Saharan Africa's non-agricultural sector) (IMF, 2021). Furthermore, focusing on the three sub-Saharan African countries, Viseth (2021) research on the impacts on immigration on the native employment in the formal and informal industries revealed that if immigrants' and native workers' skills are complementary, labor demand in the formal sector increases, whereas if their skills are substitutable, labor supply in formal sector increases and native workers lose their jobs in the formal sector and search jobs in the IE.

- (3) *The Environmental Sustainability*: Companies in the IE may not contribute to the fight against climate change as they might not be concerned about their outputs' embodied carbon, embodied water, and embodied energy. Furthermore, IE may not be concerned about the animals' rights resulting in animals' rights' violation, and performance of tests on animals might not comply with the ethical rules. As IE covers not formally registered activities (IMF, 2021), IE can cause this incompliance. There are, however, examples for IE and formal economy collaboration in the field of circular economy.

For example, IE can support recycling activities from speed and cost perspectives resulting in rapid and inexpensive recycling of plastics (Velis et al., 2022). Velis et al. (2022) recommended facilitating pollution collection through reduced barriers, increased material quality, increased revenue from recycled materials so that collection rate can be increased, plastics caused pollution can be reduced, and welfare of the people working in these processes can be increased. Furthermore, China's formal e-waste recycling system is based on the subsidy provided formal recycling plants to buy waste products collected by the informal sector (Tong et al., 2018). Tong et al. (2018) recommended optimized spatial allocation of recycling capacity and efficiency improvement in the reverse logistics system. Furthermore, IE can influence people's habitant and their environment. For example, Lv and Xu (2021)'s research on the urbanization's effects on informality revealed that its effects are related with the economic development level and can be considered in the policy making process to deal with informality. Elgin and Oyvat (2013)'s research revealed an inverted-U relationship between informality and the urbanization level as informal sector grows in early phases of urbanization due to pull and push factors and is reduced in its latter phases.

3. Recommendations for Enhancing Glocal Sustainable and Inclusive Development Through Reduced/Eliminated IE and Its Adverse Impacts

There is an opportunity cost of nurturing IE glocally as growth of the IE and widespread of its adverse impacts can obstacle sustainability and sustainable inclusive development in the long term due to many factors including but not limited to unethical, unfair, and non-human-centric economic activities. As widespread of IE-based trade can be considered as encouragement of the unethical and unfair economic conditions, unfair competition among companies operating in the IE and FE, and informal employment, it can act as a threat for glocal sustainable and inclusive development, and human dignity. For this reason, effective and strategic precautions, from the political economy point of view, need to be taken at the national and global levels so that necessary steps to reduce IE and its adverse impacts can be taken to support glocal sustainable and inclusive development based on ethical values and human-centricity.

Strategically effective policies to deal with IE are important for ethical and human-centric sustainable development. Even if country-specific conditions need to be considered for effective policy design to address informality, there are guiding principles for policy design and the following policies can be effective (Deléchat & Medina, 2020): improving access to and quality of education; simpler value-added and corporate tax systems [supportive social protection systems, reduced rates, and payroll taxes, reduced informality]; improving financial inclusion through enhanced access to formal financial services; enhancing incentives and reducing cost of formalization [(e.g., simplified labor market regulations to enhance flexibility and support informal labor to be employed in the formal labor); competition policy to

enable elimination of monopolies; elimination of bureaucratic requirements; digital platforms supporting inclusive growth (e.g., SMEs’ growth in the formal sector; women’s financial empowerment)] (Deléchat & Medina, 2020). Similarly, Pangestu (2022) summarized the following components of policy package suggestion to be tailored considering country-specific factors: enhanced macroeconomic policies, governance, and business climates (e.g., reduced tax levels, supported access to finance, education, and public services); streamlined tax regulation and administration and improved public service delivery (e.g., policies supporting flexibility in the labor market); necessary steps taken to deal with unforeseen side effects of the policy reforms; developed financial sector (cheaper access to finance; incentives provided to companies to enhance their productivity and to become companies of the formal economy); enhanced public awareness through campaigns.

Strategically effective political economy based on the three main interactive pillars (i.e., the economic and financial pillar, the social pillar, and the environmental pillar) complying with the three pillars of sustainability (i.e., economic, social, and environmental pillars) can contribute to the sustainable and inclusive development and to reduce/eliminate IE and its adverse impacts (Fig. 1.1). These pillars need to be nurtured by the ethics and values which are human-centric respecting humanity’s dignity and fair competition and supporting sustainable and inclusive development through reduced/eliminated IE and its adverse impacts (Fig. 1.1). These pillars need

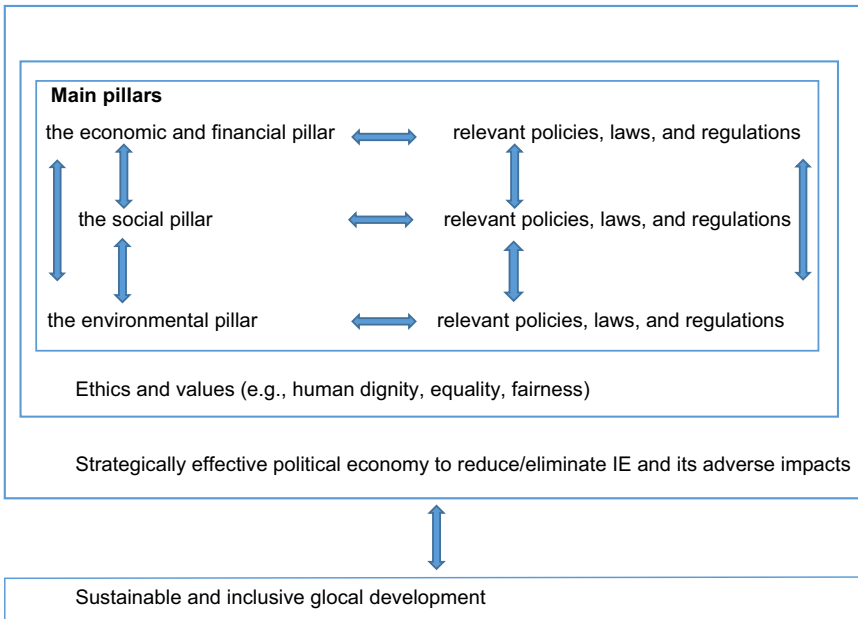


Fig. 1.1. Relationship Between Sustainable and Inclusive Glocal Development and Strategically Effective Political Economy to Deal With IE.

Source: Sketched by the author.