



RELATIONSHIP OF SUSTAINABLE ECONOMIC DEVELOPMENT AND ENVIRONMENTAL PERFORMANCE VIA MODERATING EFFECT OF GOVERNANCE IN DEVELOPING AND DEVELOPED COUNTRIES

By

TAN CHEE LEONG

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DEDICATION

TO MY BELOVED FAMILY

Chong Hui Ling

Tan Syuen Yii

Tan Kaay Voon

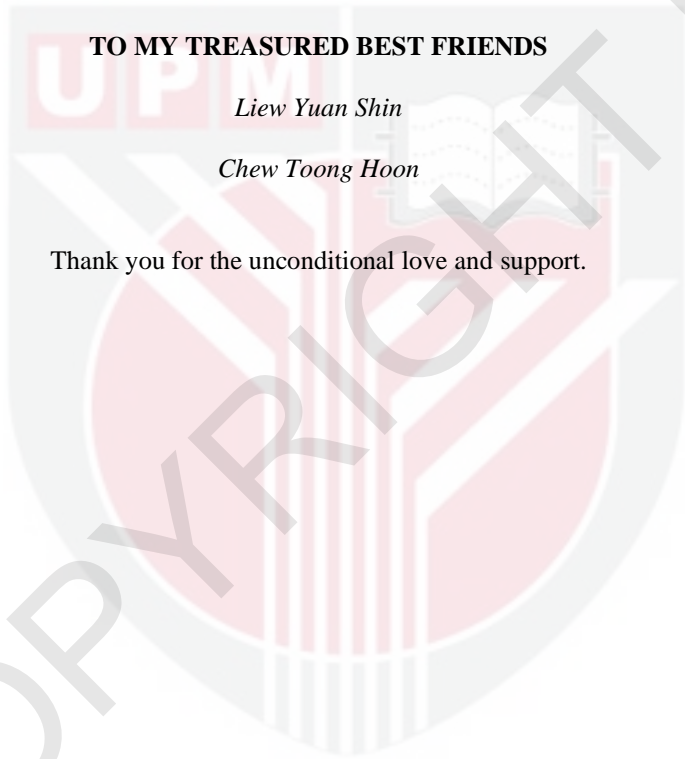
The late Tan Kim Bee and the late Yap Soo Loo

TO MY TREASURED BEST FRIENDS

Liew Yuan Shin

Chew Toong Hoon

Thank you for the unconditional love and support.



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UPM

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

RELATIONSHIP OF SUSTAINABLE ECONOMIC DEVELOPMENT AND ENVIRONMENTAL PERFORMANCE VIA MODERATING EFFECT OF GOVERNANCE IN DEVELOPING AND DEVELOPED COUNTRIES

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June 2022

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Economic outcomes and expectations may differ between developing and developed countries, primarily due to different stages of economic development. Nonetheless, governments of developing and developed countries alike are focusing on sustainable economic development (SED) to ensure self-sufficiency in food, total employment, and financial stability without relying on foreign aid. To achieve these objectives, governments continue to exploit natural resources via unsustainable industrialisation, causing deforestation and air and water pollution, which ultimately destroys the natural ecosystem. Unfortunately, the general perception is that environmental conservation will not bring any commercial benefits. Instead, conservation relies on the government's or institution's budget to maintain the order of ecology and in return minimise environmental impacts.

Though some empirical studies argue that corporate environmental efforts bring in good revenue through tourism spending, environmentally friendly industries, green-label industries, and environment-conscious investments, both developing and developed countries continue to emphasise economic development rather than environmental performance. Therefore, this study aimed to investigate the relationship of sustainable economic development (SED) and environmental performance (EP) via moderating effect of country governance (CG) in developing and developed countries. The underpinning theories adopted in this study were the Environmental Kuznets Curve (EKC), Ecological Modernisation Theory (EMT), Neoliberal Environmental Governance (NEG), and Great Moderation (GM).

Past studies on the nexus between SED, EP, and CG have focused on the company or institution level. This study, in contrast, addressed the country level in terms of developing and developed countries. Data on SED was obtained from the World Bank

and International Monetary Fund (IMF) database, which included Gross Domestic Product (GDP), Foreign Direct Investment (FDI), Net Capital Account (NCA), and Central Government Debt ratio to GDP (DEBT). EP was represented by the Environmental Performance Index (EPI), the data of which was developed by Yale University and Columbia University. CG was represented by Worldwide Governance Indicators (WGIs), whereby the data was produced by the Natural Resource Governance Institute (NRGI) and World Bank Institute. All data was obtained from an even number of years from 2006 to 2018. This study also took into consideration the control variables of primary school enrolment (SCH) and country population (POP), which may potentially influence the outcome of this study. A panel regression analysis based on the fixed effect model was performed to examine the nexus of SED, EP, and CG.

Overall, the findings contribute to the economic literature by demonstrating the impact of the SED on EP in developing and developed countries. This study also confirms the effectiveness of CG for EP by preventing environmental degradation and enhancing environmental conservation. This study further proves the effectiveness of CG in moderating the link between SED and EP for optimised performance. The outcomes of this study provide a new perspective and recommend relevant strategies for improving the usage of a country's resources to achieve balanced performance among SED, EP, and CG. The findings further contribute to governments, institutions, and agencies as inputs to improve CG policies. Potential investors or fund managers can also use the findings as a guideline for making sound investment decisions. Finally, the study serves as a reference for academicians by providing informative knowledge and filling the gap in the existing economics and environmental literature.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**HUBUNGAN PEMBANGUNAN EKONOMI LESTARI DAN PRESTASI ALAM
SEKITAR MELALUI KESAN MODERASI TADBIR URUS DI NEGARA-
NEGARA MEMBANGUN DAN MAJU**

Oleh

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Hasil dan jangkaan ekonomi berbeza di antara negara membangun dan negara maju adalah disebabkan oleh peringkat perkembangan ekonomi yang berlainan. Namun demikian, negara-negara membangun dan maju tetap menumpu pada pembangunan ekonomi lestari (SED) untuk memastikan negara kekal berdikari dari segi makanan, penjaan pekerjaan, dan kestabilan kewangan tanpa mengharapkan bantuan negara asing. Untuk mencapai objektif tersebut, kerajaan-kerajaan terus mengeksploitasi sumber alam semulajadi melalui perindustrian yang tidak mampan, yang akhirnya memusnahkan ekosistem semulajadi. Malangnya, persepsi umum adalah bahawa konservasi alam sekitar tidak membawa sebarang faedah komersial. Sebaliknya, konservasi bergantung pada bajet kerajaan atau institusi untuk mengekalkan ketenteraman ekologi dan justeru mengurangkan impak pada alam sekitar.

Walaupun segelintir kajian empirikal berhujah bahawa usaha alam sekitar korporat menjana pulangan yang bagus melalui perbelanjaan pelancongan, industri mesra alam, industri label hijau, dan pelaburan dengan kesedaran alam sekitar, negara-negara membangun dan maju terus mementingkan pembangunan ekonomi daripada prestasi alam sekitar (EP). Oleh itu, kajian ini bertujuan untuk menyiasat hubungan pembangunan ekonomi lestari (SED) dan prestasi alam sekitar (EP) melalui kesan moderasi tadbir urus (CG) di negara-negara membangun dan maju. Teori-teori tunjang yang diguna pakai dalam kajian ini ialah Environmental Kuznets Curve (EKC), Ecological Modernisation Theory (EMT), Neoliberal Environmental Governance (NEG) dan Great Moderation (GM).

Kajian lepas mengenai perhubungan antara SED, EP, dan CG bertumpu pada tahap syarikat atau institusi. Sebaliknya, kajian ini menangani peringkat negara, iaitu negara membangun dan negara maju. Data SED diperolehi daripada pangkalan data Bank Dunia

dan International Monetary Fund (IMF), termasuk data Keluaran Dalam Negara Kasar (KDNK), Pelaburan Langsung Asing, Akaun Model Bersih, dan nisbah Hutang Kerajaan Pusat dari KDNK. Manakala data EP diwakili oleh Environmental Performance Index (EPI), yang dicipta oleh Yale University dan Columbia University. Data CG diwakili oleh Worldwide Governance Indicators (WGI), yang dikeluarkan oleh Natural Resource Governance Institute (NRGI) dan World Bank Institute. Semua data diperoleh untuk tahun berangka genap dari 2006 ke 2018. Kajian ini juga mengambil kira pembolehubah kawalan iaitu pendaftaran kemasukan sekolah rendah (SCH) dan populasi negara (POP), yang mungkin mempengaruhi hasil kajian. Analisis regresi panel berdasarkan model kesan tetap digunakan untuk menguji hubungan di antara SED, EP, dan CG.

Keseluruhannya, dapatan kajian ini menyumbang kepada literatur ekonomi dengan mendemonstrasikan impak SED terhadap EP di negara membangun dan maju. Kajian ini juga mengesahkan keberkesanan CG untuk EP dengan mencegah kemerosotan alam sekitar sambil meningkatkan konservasi alam sekitar. Kajian ini turun membuktikan kegunaan CG dalam menyederhanakan hubungan di antara SED dan EP demi prestasi optimum. Hasil kajian ini memberi perspektif baru dan mengesyorkan strategi relevan untuk menambah baik penggunaan sumber negara untuk mencapai prestasi seimbang antara SED, EP, dan CG. Keputusan kajian seterusnya menyumbang kepada pihak kerajaan, institusi, dan agensi sebagai input untuk memperbaiki polisi CG. Bakal pelabur atau pengurus dana boleh turut mengaplikasikan hasil kajian ini sebagai panduan dalam mengambil keputusan pelaburan yang bernas. Akhir sekali, kajian ini berfungsi sebagai rujukan untuk para akademik dengan menyediakan pengetahuan berinformasi dan menutup jurang dalam literatur ekonomi dan alam sekitar yang sedia ada.

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Last but not least, I extend my appreciation to my lecturers, staff, and friends at the School of Business and Economics, Universiti Putra Malaysia for their valuable guidance and helping hand during my study.

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the Degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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TABLE OF CONTENTS

| | Page |
|---|-------------|
| ABSTRACT | i |
| ABSTRAK | iii |
| ACKNOWLEDGEMENT | v |
| APPROVAL | vii |
| DECLARATION | viii |
| LIST OF TABLES | xv |
| LIST OF FIGURES | xviii |
| LIST OF ABBREVIATIONS | xix |
| | |
| CHAPTER | |
| 1 | |
| INTRODUCTION | 1 |
| 1.1 Introduction | 1 |
| 1.2 Background of the Study | 1 |
| 1.3 Problem Statement | 9 |
| 1.4 Research Gap | 11 |
| 1.5 Research Questions | 12 |
| 1.6 Research Objectives | 13 |
| 1.7 The motivation of the Study | 13 |
| 1.8 Significance of the Study | 13 |
| 1.9 Definition of Key Terms | 15 |
| 1.9.1 Sustainable Economic Development (SED) | 15 |
| 1.9.2 Environmental Performance (EP) | 15 |
| 1.9.3 Country Governance (CG) | 15 |
| 1.9.4 Developing Countries | 16 |
| 1.9.5 Developed Countries | 16 |
| 1.9.6 Sustainable Development Goals (SDG) | 16 |
| 1.10 Organization of the Thesis | 16 |
| 1.11 Summary of the Chapter | 17 |
| | |
| 2 | |
| LITERATURE REVIEW | 18 |
| 2.1 Introduction | 18 |
| 2.2 Sustainable Economic Development (SED) | 18 |
| 2.2.1 Definition of Sustainable Economic Development | 18 |
| 2.2.2 Related Studies on Sustainable Economic Development | 18 |
| 2.3 Environmental Performance (EP) | 20 |
| 2.3.1 Definition of Environmental Performance | 20 |
| 2.3.2 Related Studies on Environmental Performance (EP) | 20 |
| 2.4 Country Governance (CG) | 22 |
| 2.4.1 Definition of Country Governance | 22 |
| 2.4.2 Related Studies on Country Governance | 23 |
| 2.5 Country Status of Development | 26 |
| 2.5.1 Developing Countries | 26 |
| 2.5.2 Developed Countries | 27 |

| | | |
|----------|---|-----------|
| 2.6 | Research Variables | 29 |
| 2.6.1 | Independence Variable (IV): Sustainable Economic Development | 30 |
| 2.6.1.1 | Gross Domestic Product (GDP) | 30 |
| 2.6.1.2 | Net Capital Account (NCA) | 31 |
| 2.6.1.3 | Foreign Direct Investment (FDI) | 31 |
| 2.6.1.4 | Central Government Debt, Percentage to GDP (DEBT) | 31 |
| 2.6.2 | Dependence Variable (DV): Environmental Performance (EP) | 32 |
| 2.6.2.1 | Environmental Performance Index (EPI) | 32 |
| 2.6.3 | Moderating Variable (MV): Country Governance (CG) | 34 |
| 2.6.3.1 | Worldwide Governance Indicators (WGI) | 35 |
| 2.6.4 | Control Variables (CV): Primary School Enrolment (SCH) and Country Population (POP) | 36 |
| 2.6.4.1 | Primary School Enrolment (SCH) | 37 |
| 2.6.4.2 | Country Population (POP) | 39 |
| 2.7 | Theoretical Review and Background | 42 |
| 2.7.1 | Environmental Kuznets Curve (EKC) Theory | 42 |
| 2.7.2 | Ecological Modernisation Theory (EMT) | 44 |
| 2.7.3 | Neoliberal Environmental Governance (NEG) Theory | 45 |
| 2.7.4 | Great Moderation (GM) Theory | 45 |
| 2.8 | Theoretical and Hypotheses Development | 46 |
| 2.8.1 | Nexus of Sustainable Economic Development (SED) on Environmental Performance (EP) | 47 |
| 2.8.2 | Nexus of Country Governance (CG) on Environmental Performance (EP) | 52 |
| 2.8.3 | Nexus of Country Governance (CG) Moderating Sustainable Economic Development (SED) and Environmental Performance (EP) | 55 |
| 2.9 | Conceptual Framework | 67 |
| 2.10 | Gap Identified from the Studies | 68 |
| 2.11 | Summary of the Chapter | 69 |
| 3 | DATA AND METHODOLOGY | 70 |
| 3.1 | Introduction | 70 |
| 3.2 | Research Design and Research Approaches: Quantitative Research | 70 |
| 3.3 | Research Philosophy | 71 |
| 3.4 | Sources of Data and Data Collection Procedure | 71 |
| 3.4.1 | Developing and Developed Countries Sources from the World Bank Database | 72 |

| | | |
|----------|---|-----------|
| 3.4.2 | Sustainable Economic Development Sources from the World Bank and International Monetary Fund (IMF) Database | 74 |
| 3.4.3 | Environmental Performance Sources from the Environmental Performance Index (EPI) Database | 74 |
| 3.4.4 | Country Governance Sources from the Worldwide Governance Indicators (WGI) | 75 |
| 3.4.5 | Control Variables (CV) Sources from the World Bank Database | 75 |
| 3.5 | Time Horizon | 76 |
| 3.6 | Statistical Data Analysis | 76 |
| 3.6.1 | Multiple Panel Data Regression Analysis | 76 |
| 3.6.2 | Descriptive Analysis | 77 |
| 3.6.3 | Correlation Matrix Analysis | 77 |
| 3.6.4 | Diagnostic and Reliability Tests for the Relationships | 78 |
| 3.6.5 | Model of Estimations | 80 |
| 3.7 | Summary of the Chapter | 85 |
| 4 | RESULTS AND DISCUSSION | 86 |
| 4.1 | Introduction | 86 |
| 4.2 | Data Analysis | 86 |
| 4.2.1 | Descriptive Analysis | 86 |
| 4.2.2 | Descriptive Analysis for Sustainable Economic Development (SED) | 87 |
| 4.2.3 | Descriptive Analysis for Environmental Performance (EP) | 90 |
| 4.2.4 | Descriptive Analysis for Country Governance (CG) | 91 |
| 4.2.5 | Descriptive Analysis for Control Variable: Primary School Enrolment (SCH) and Country Population (POP) | 91 |
| 4.3 | Correlation Analysis | 92 |
| 4.4 | The Relationship of Sustainable Economic Development (SED) on Environmental Performance (EP)- Objective 1 | 94 |
| 4.4.1 | Diagnostic and Reliability Test for the Relationship of the SED on EP | 94 |
| 4.4.2 | Single Regression Test | 96 |
| 4.4.3 | The Relationship of SED on EP | 98 |
| 4.4.3.1 | The Relationship of SED on EP-Health Impact (HI), Model 1 and Model 1a | 98 |
| 4.4.3.2 | The Relationship of SED on EP-Water Resources (WR), Model 2 and Model 2a | 102 |
| 4.4.3.3 | The Relationship of SED on EP-Biodiversity and Habitat (BH), Model 3 and Model 3a | 105 |

| | | |
|---------|--|-----|
| 4.4.3.4 | The Relationship of SED on EP- Product Natural Resources (PNR), Model 4 and Model 4a | 108 |
| 4.4.3.5 | The Relationship of SED on EP- Climate, and Energy (CE), Model 5 and Model 5a | 112 |
| 4.4.4 | Conclusion for the Relationship of SED on EP | 115 |
| 4.5 | The Relationship of Country Governance (CG) on Environmental Performance (EP)- Objective 2 | 116 |
| 4.5.1 | Diagnostic and Reliability Test for the Relationship of CG on EP | 116 |
| 4.5.2 | The Relationship of CG on EP | 118 |
| 4.5.2.1 | The Relationship of CG on EP- Health Impact (HI), Model 6 and Model 6a | 118 |
| 4.5.2.2 | The Relationship of CG on EP- Water Resources (WR), Model 7 and Model 7a | 122 |
| 4.5.2.3 | The Relationship of CG on EP- Biodiversity and Habitat (BH), Model 8 and Model 8a | 126 |
| 4.5.2.4 | The Relationship of CG on EP- Product Natural Resources (PNR), Model 9 and Model 9a | 129 |
| 4.5.2.5 | The Relationship of CG on EP- Climate and Energy (CE), Model 10 and Model 10a | 133 |
| 4.5.3 | Conclusion for the Relationship of CG on EP | 137 |
| 4.6 | The Moderating Role of Country Governance (CG) on Sustainable Economic Development (SED) and Environmental Performance (EP)- Objective 3 | 138 |
| 4.6.1 | Diagnostic and Reliability Test for the Moderating Effect of CG on SED and EP | 138 |
| 4.6.2 | The Moderating Effect of CG on SED and EP | 140 |
| 4.6.2.1 | The Moderating Effect of CG on SED and EP- Health Impact (HI), Model 11 and Model 11a | 141 |
| 4.6.2.2 | The Moderating Effect of CG on SED and EP- Water Resources (WR), Model 12 and Model 12a | 147 |
| 4.6.2.3 | The Moderating Effect of CG on SED and EP- Biodiversity and Habitat (BH), Model 13 and Model 13a | 154 |
| 4.6.2.4 | The Moderating Effect of CG on SED and EP- Product Natural Resources (PNR), Model 14 and Model 14a | 160 |

| | | | |
|----------|---------|--|-----|
| | 4.6.2.5 | The Moderating Effect of CG on SED and EP- Climate and Energy (CE), Model 15 and Model 15a | 165 |
| | 4.6.3 | Conclusion for the Moderating Effect of CG on SED and EP | 170 |
| | 4.7 | Summary of the Chapter | 171 |
| 5 | | SUMMARY, CONCLUSION AND RECOMMENDATION | 172 |
| | 5.1 | Introduction | 172 |
| | 5.2 | Summary of the Findings | 172 |
| | 5.3 | Contribution of the Study | 176 |
| | | 5.3.1 Practical Implications | 176 |
| | | 5.3.2 Policies Implications | 180 |
| | | 5.3.3 Knowledge Contribution | 180 |
| | 5.4 | Limitations and Recommendations for Future Research | 181 |
| | 5.5 | Summary of the Chapter | 184 |
| | | REFERENCES | 186 |
| | | APPENDICES | 228 |
| | | BIODATA OF STUDENT | 269 |
| | | LIST OF PUBLICATIONS | 270 |

LIST OF TABLES

| Table | | Page |
|--------------|---|-------------|
| 1.1 | Resolving Sustainability Problems | 5 |
| 1.2 | Worldwide Governance Indicators' Government Effectiveness Scoring for Selected Developing Countries from 2006 to 2018 (Aggregate Indicator -2.5 to 2.5) | 7 |
| 1.3 | Worldwide Governance Indicators' Government Effectiveness Scoring for Selected Developed Countries from 2006 to 2018 (Aggregate Indicator -2.5 to 2.5) | 8 |
| 1.4 | Tame versus Wicked Environmental Problems | 9 |
| 2.1 | The Listing of Developing Countries | 28 |
| 2.2 | The Listing of Developed Countries | 29 |
| 2.3 | The Operationalization and Sources of Research Variables | 41 |
| 2.4 | The Summaries of Hypotheses Listing | 63 |
| 3.1 | The Classification for Countries' Status of Development in Selected International Organizations | 73 |
| 4.1 | Descriptive Analysis for the Variables Employed in the Study | 89 |
| 4.2 | Pearson Correlation for SED, EP, CG and CV in Developing and Developed Countries | 93 |
| 4.3 | The Results of Diagnostic and Reliability Test for the Relationship of SED on EP | 95 |
| 4.4 | The Results for the Single Regression Test of SED on EP | 97 |
| 4.5 | The Results for the Relationship of SED on EP- Health Impact (HI) | 100 |
| 4.6 | The Results for the Relationship of SED on EP- Water Resources (WR) | 103 |
| 4.7 | The Results for the Relationship of SED on EP- Biodiversity and Habitat (BH) | 106 |
| 4.8 | The Results for the Relationship of SED on EP- Product Natural Resources (PNR) | 110 |

| | | |
|-------|---|-----|
| 4.9 | The Results for the Relationship of SED on EP- Climate and Energy (CE) | 113 |
| 4.10A | The Results Summary for Relationship of SED on EP based on Model ii in Developing Countries. | 115 |
| 4.10B | The Results Summary for Relationship of SED on EP based on Model ii in Developed Countries. | 116 |
| 4.11 | The Results of Diagnostic and Reliability Tests for the Relationship of CG on EP | 117 |
| 4.12 | The Results for the Relationship of CG on EP- Health Impact (HI) | 120 |
| 4.13 | The Results for the Relationship of CG on EP- Water Resources (WR) | 123 |
| 4.14 | The Results for the Relationship of CG on EP- Biodiversity and Habitat (BH) | 128 |
| 4.15 | The Results for the Relationship of CG on EP- Product Natural Resources (PNR) | 131 |
| 4.16 | The Results for the Relationship of CG on EP- Climate and Energy (CE) | 135 |
| 4.17A | The Results Summary for Relationship of CG on EP based on Model ii in developing countries | 137 |
| 4.17B | The Results Summary for Relationship of CG on EP based on Model ii in developed countries | 137 |
| 4.18 | The Results of Diagnostic and Reliability Tests for the Moderating Effect of CG on SED and EP | 139 |
| 4.19 | The Results for the Moderating Effect of CG on SED and EP- Health Impact (HI) | 143 |
| 4.20 | The Results for the Moderating Effect of CG on SED and EP- Water Resources (WR) | 149 |
| 4.21 | The Results for the Moderating Effect of CG on SED and EP- Biodiversity and Habitat (BH) | 156 |
| 4.22 | The Results for the Moderating Effect of CG on SED and EP- Product Natural Resources (PNR) | 162 |
| 4.23 | The Results for the Moderating Effect of CG on SED and EP- Climate and Energy (CE) | 167 |

| | | |
|-------|---|-----|
| 4.24A | The Results Summary for the Moderating Effect of CG on SED and EP based on Model ii in developing countries | 171 |
| 4.24B | The Results Summary for the Moderating Effect of CG on SED and EP based on Model ii in developed countries | 171 |
| 5.1 | Summary of the Research Analysis | 174 |
| 5.2 | Economic and General Statistics for BRIC Countries | 183 |



LIST OF FIGURES

| Figure | | Page |
|---------------|---|-------------|
| 1.1 | Global Food Crisis Overview for 2018 | 3 |
| 2.1 | The EPI Framework Includes 9 Issues and 19 Indicators | 34 |
| 2.2 | The Relationship of Economic Growth and Environmental Degradation in Environmental Kuznets Curve (EKC) Theory | 43 |
| 2.3 | Conceptual Framework | 68 |
| 4.1 | Environmental Kuznets Curve (EKC) Theory for CG Moderating between SED and EP- HI in Mining Industries | 142 |
| 5.1 | Percentage and Number of People Affected by Severe Food Insecurity in 2016 | 179 |

LIST OF ABBREVIATIONS

| | |
|-----------------|--|
| ADB | Asian Development Bank |
| AQI | Air Quality Index |
| BH | Biodiversity & Habitat |
| BRIC | Brazil, Russia, India and China |
| CC | Control of Corruption |
| CCPI | Climate Change Performance Index |
| CE | Climate & Energy |
| CG | Country Governance |
| CIESIN | The Centre for International Earth Science Information Network |
| CO ₂ | Carbon Dioxide |
| CPI | Consumer Price Index |
| CV | Control Variable |
| DEBT | Central Government Debt (% to GDP) |
| DV | Dependence Variable |
| EKC | Environmental Kuznets Curve |
| EMT | Ecological Modernisation Theory |
| EP | Environmental Performance |
| EPI | Environmental Performance Index |
| ESG | Environmental, Social and Governance |
| EU | European Unions |
| EVI | Environmental Vulnerability Index |
| EBI | Environmental Benefits Index |
| FAO | Food and Agriculture Organisation of the United Nations |
| FDI | Foreign Direct Investment |
| GFC | Global Financial Crisis |
| GCI | Good Country Index |
| GDP | Gross Domestic Product |
| GE | Government Effectiveness |
| GHGs | Green House Gases |
| GLC | Government-linked Companies |
| GLS | Generalized Least Square |
| GM | Great Moderation |

| | |
|-------|--|
| GNI | Gross National Income |
| HDI | Human Development Index |
| HI | Health Impact |
| ICT | Information Communication Technologies |
| IMF | International Monetary Fund |
| IND | International Natural Debt |
| IV | Independence Variable |
| LM | Lagrange Multiplier |
| MCO | Movement Control Order |
| MRC | Mekong River Commission |
| MV | Moderating Variable |
| N11 | Next 11 Countries |
| NCA | Net Capital Account |
| NEG | Neoliberal Environmental Governance |
| NGO | Non-governmental Organisation |
| NOx | Oxides of Nitrogen |
| NRGI | Natural Resources Governance Institute |
| OECD | Organisation for Economic Co-operation and Development |
| PM2.5 | Particulate Matter 2.5 |
| PNR | Productive Natural Resources |
| POP | Country Population |
| PPP | Purchasing Power Parity |
| PSAVT | Political Stability & Absence of Violence/ Terrorism |
| R&D | Research and Development |
| RECS | Residential Energy Consumption Survey |
| RL | Rule of Law |
| RQ | Regulatory Quality |
| SCH | Primary School Enrolment |
| SDG | Sustainable Development Goals |
| SED | Sustainable Economic Development |
| SFM | Sustainable Forest Management |
| SMI | Small Medium Industries |
| SO2 | Sulfur Dioxide |
| UN | United Nations |

| | |
|--------|---|
| UNCBD | United Nations Convention of Biological Diversity |
| UNDP | United Nations Development Program |
| UNFCCC | United Nations Framework Convention on Climate Change |
| USD | United States of America |
| VA | Voice & Accountability |
| VIF | Variance Inflation Factor |
| WCED | World Commission on Environmental and Development |
| WEF | World Economic Forum |
| WGI | Worldwide Governance Indicators |
| WHO | World Health Organisation |
| WR | Water Resources |
| WTO | World Trade Organisation |
| YCELP | Yale Centre for Environmental Law and Policy |

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter introduces the background of the study on the concepts of sustainable economic development (SED), environmental performance (EP), and country governance (CG). Following that, the problem statement discusses the research gaps related to the specific interrelationships among these concepts. Next, the research questions and objectives, the significance of the study, and definitions of key terms are presented. Finally, the organisation of the thesis is outlined.

1.2 Background of the Study

In the modern world, developing and developed countries are increasingly focusing on economic achievement to determine their financial strength and economic security. Over the years, most of these countries have continued championing SED through the implementation of impressive economic policies, improvements in economic efficiency, and the stimulation of technological investments (Wilhite and McNeill, 2015). For example, mega infrastructure projects, massive manufacturing activities, and aggressive promotions of tourism are common activities to promote SED. SED can be defined as continual economic development through diversification in various economic segments across different stages of a country's development. SED also seeks to stimulate local economies across industries (e.g., agriculture, manufacturing, construction, services, tourism, etc.) to achieve continual economic growth (Goulding et al., 2014; Henderson, 2009). SED activities are anticipated to affect EP, as Burton et al., (2011) stated that extensive economic development, with high inputs and high usage of economic factors, has resulted in the excessive consumption of natural resources, ecological degradation, and environmental pollution.

EP is defined as the explicit and implicit cost of environmental protection activities meant to promote and encourage environmental conservation. It covers the dissemination of conservation information which seeks the highest environmental standards in line with national environmental regulations. However, it can be said that countries that comply with environmental regulations may also incur opportunity costs, which tend to negatively affect profitability, prices, innovation, productivity, and investment opportunities (Chen et al., 2018). The increasing impact on EP is conducive neither for SED nor local economic development, which has aroused widespread concern amongst developing and developed countries. Continual economic development inevitably affects the environmental model, making conservation a persistent global paradox across some regions. Countries that are highly prosperous and have attained significant economic wealth tend to emphasise environmental conservation as a means to prevent global warming, encourage marine protection, and enhance biodiversity and

ecosystems. These countries mostly fall under the category of developed countries. Meanwhile, underprivileged developing countries lack basic needs and face hunger, water shortage, inadequate employment opportunities, air pollution, and poor economic wealth.

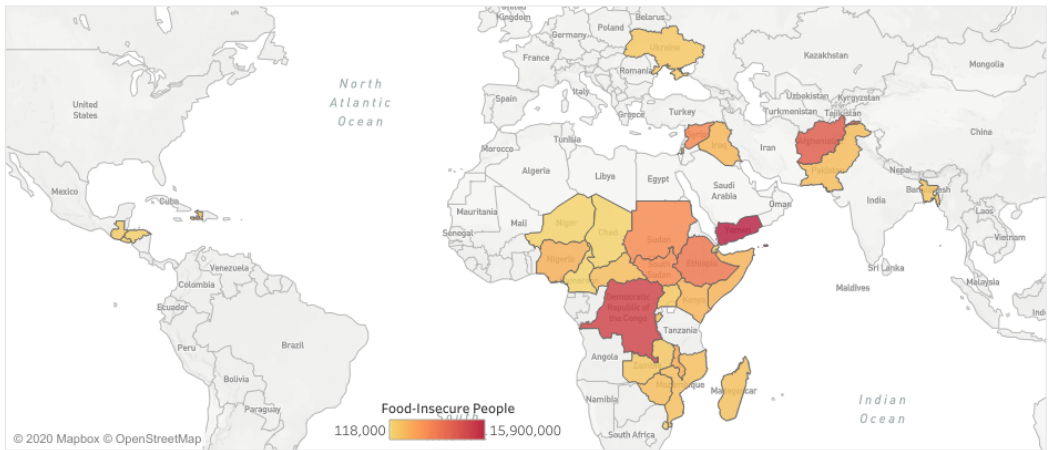
As shown in Figure 1.1, the Food and Agriculture Organisation of the United Nations reported that 53 countries with an estimated 113 million people faced food insecurity in 2018. Most of the countries under food crisis are from the Middle East and African region, particularly Yemen, the Democratic Republic of Congo, and Afghanistan, each of which has a population of more than 10 million facing acute food insecurity with poor governance and inefficient economic development. They are followed by Ethiopia, Syria, Sudan, and South Sudan, which have more than five million citizens each facing severe food crises. The rest of the countries are mainly from the African continent with a one million or more population encountering the same food crisis dilemma. According to the Integrated Food Security Phase Classification (IPC, 2012), there are multiple causes and manifestations of food insecurity including agriculture output, nutritional policies, economic scenario, climate conditions, internal or external conflict, livelihoods assets and strategies, natural resources availability, governance effectiveness, and risk management policies. Acute food crises are further exacerbated by long pending problems across political, socioeconomic, civil, institutional, historical, and cultural contexts at the macro and micro levels (Cuesta et al, 2014). Given the socio-economic paradox in developing countries, and to a lesser extent in developed countries, it has become an urgent issue to strengthen SED while simultaneously championing EP alongside profit maximisation in developing and developed countries.

Food crises overview

Select the year
2018

People facing acute
food insecurity
113,000,000

Countries in
food crisis
53

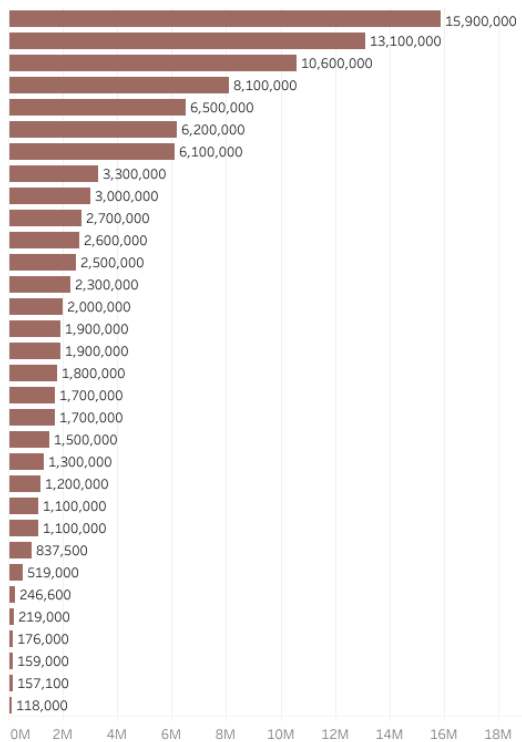


Key drivers

- Yemen
- DR of the Congo
- Afghanistan
- Ethiopia
- The Syrian Arab Republic
- The Sudan
- South Sudan
- Malawi
- Nigeria
- Somalia
- Kenya
- Iraq
- Haiti
- Pakistan
- Central African Republic
- Zimbabwe
- Mozambique
- Burundi
- Palestine
- Madagascar
- Bangladesh
- Zambia
- Uganda
- Ukraine
- Guatemala
- Honduras
- Eswatini
- El Salvador
- Cameroon
- Chad
- Djibouti
- The Niger



Population in IPC/CH Phase 3 and above



[Click here to read the Global Report on Food Crises](#)

Figure 1.1: Global Food Crisis Overview 2018

[Source: Food and Agriculture Organisation of United Nations, 2018]

Prioritising economic growth is complicated because it assumes that the power associated with economic development can resolve environmental issues. In reality, SED influences EP outcomes; for example, increased carbon dioxide (CO₂) emissions due to rapid economic growth have been a major concern to the environment (Busch and Hoffmann, 2011; Rahman, 2017). There is no evidence to state that pollution and the depletion of natural resources can be reduced through the expansion of the economy (Guillen-Royo, Guardiola, and Garcia-Quero, 2017). From another perspective, CG can be viewed as a much better factor to minimise environmental degradation and improving environmental conservation. CG is widely defined as actions administered through government institutions to mitigate negative impacts (e.g., corruption, pollution, poor regulations, etc.) on the efficiency of a country's means of operations (Oluwatobi et al., 2015).

Prior literature shows that CG leads to better national investment behaviour and drives efficient economic growth (Farla, 2014). For instance, Sena et al. (2018) found that a government's effective policy actions promote greater levels of innovation and facilitate economic growth. CG research has also demonstrated how higher regulatory quality can reduce information asymmetry, increase accountability, and curtail corruption (Eckersley, 2015; Fischer and Boer, 2011; Ndjaboué, Brisson and Vézina, 2012). Thiel (2017) also mentioned that CG is shaped by policies, authoritative methods, as well as institutional and enforcement standards to drive environmental responsibilities while championing economic sustainability. Xu and Yano (2017) further claimed that CG has many functions and contributions, such as enhancing a country's investment environment, generating economic activities, encouraging innovation, promoting economic growth, and harmonising a country's laws and regulations.

Effective governance policies with strong anti-corruption efforts and sound government delivery systems do not only attract local and foreign investors' willingness to contribute to private and public investments but also promote conservation as a sustainable development option. Since CG acts as a baseline for economic assistance or investment, the establishment of good and effective CG practices in developing and developed countries is a prerequisite for international agencies, institutions, non-governmental organisations (NGOs), sponsor countries, and foreign investors.

In fact, from the experience of developed countries such as the United States and the European Union, a scientific, systematic, and effective governance system can improve societal awareness of environmental sustainability, public perception of total conservation, and EP achievement of a country (Kostka and Mol, 2013). On the other hand, developing countries (e.g., Brazil, Russia, China, India, and Indonesia) have lower environmental standards, which aggravates further activities and leads to local environmental pollution; consequently, conservation efforts are hindered due to poor governance (Hassaballa, 2015). This may lead to such countries becoming pollution destinations as pollution-intensive industries typically move from developed to developing countries as a result of the latter's poor or inefficient governance (Endrikat et al., 2014; Hang et al., 2018; Cai et al., 2018). As such, independent agencies closely monitor environmental pollution issues caused by foreign investors, whereby various anti-dumping acts are in place to prevent the dumping of hazardous materials that cause

harm to the host country (Cheng et al., 2017; Cheng et al., 2018; Zheng et al., 2019; Ren et al., 2018). Table 1.1 shows a matrix of the threat to governance versus the threat to EP, which indicates that low threats to CG and EP are considered a carefree situation. A high threat to EP and low threat to CG is considered a calculated risk for the situation, while a low threat to EP and high threat to CG is considered collusion wherein a government needs to take necessary action to restore order. Finally, high threats to both EP and CG call for immediate and close collaboration for sustainability.

Table 1.1: Resolving Sustainability Problems

| | | Threat to Environmental Performance (EP) | |
|-----------------------------------|------|--|---|
| | | Low | High |
| Threat to Country Governance (CG) | Low | Carefree Managing for Shareholders | Calculation Managing for Stakeholder |
| | High | Collusion Managing for Industry | Collaboration Managing for Sustainability |

[Source: Barnett et al., 2018]

The world is increasingly recognising CG as an important factor in enhancing EP and attracting foreign investors who prioritise conservation efforts alongside profitability. Effective CG ensures that taxes or revenues generated from investments are used wisely and responsibly to preserve the well-being of the environment. Furthermore, effective CG, in the form of stable regulatory standards toward environmental consciousness, encourages environmentally sustainable sentiments and minimises corruption or mismanagement (Drugov, 2010). This evidence suggests that the quality of CG plays a dominant role in altering governments' behaviour as well as in promoting conservation. Therefore, the effectiveness of CG, directly and indirectly, preserves EP. For example, effective government delivery systems enable environmental indicators to measure resource usage and the effects of economic activities on nature and the environment. This includes measures for the forest, water, or land cultivation, environmental degradation due to pollution, deforestation, loss of habitat, and even loss of biodiversity. Such indicators have shown that growing populations, poor awareness, low literacy rates, and the expansion of economies have placed greater demands on land, water, forest, mineral, and energy resources, which further exerts pressure on environmental conservation efforts. Nonetheless, new technologies and increasing productivity through

better CG policies ensure that future development is economically and environmentally sustainable (World Bank, 2012).

Environmental protection led by effective CG, governments, institutions, agencies, NGOs, private entities and the general public forms a bigger governance network that is responsible for effective environmental governance and programmes. This is especially important for conservation and sustainability as they require total participation and mobilisation (Callahan, 2007; Holzer and Kloby, 2005; Sobol, 2008). The role of effective CG principles and values also demonstrates that environmental conservation requires the total involvement of all parties, especially government institutions in developing and developed countries. The meaning and mechanism of governance hand-in-hand with public participation need to be correctly perceived by relevant sectors before engaging the public in establishing effective CG. For example, The European Union's member states are currently ratifying the EU Commission's directives on economic, environmental, and governance reporting through the introduction of intelligent and substantive regulations (Ioannou and Serafeim, 2014). This seeks to ensure that CG policies are constantly being reviewed and updated to reflect the current scenario.

France was the pioneer in CG when it enacted the New Regulations towards environmental sustainability in 2001 (Whiteside et al., 2010). In Denmark, 1,100 institutions and state-owned companies, institutional investors, mutual funds, and listed financial businesses are expected to provide sustainable measures for country governance, environmental conservation, and socioeconomic equality in their formation policies (Camilleri, 2015). Likewise, Sweden's state-owned companies are required to publish environmental sustainability reports with elements of environmental governance (Ioannou and Serafeim, 2014). From the examples above, it is clear that economically mature developed countries emphasise national governance with the sole objective of achieving environmental and economic sustainability. The scenario is rather similar in Malaysia, which is listed as a developing country. According to Bin and Yi (2015), Malaysian government-linked companies (GLCs) and listed company stock exchange, Bursa Malaysia, have always advocated for economic and environmental sustainability as the key to the country's success. These GLC companies include PETRONAS, Felda, Maybank, Tenaga Nasional Bhd, and Telekom Malaysia Bhd, which greatly prioritise environmental, social, and governance (ESG) measures for the best achievement of SED and EP. A holistic approach to business management that incorporates ESG considerations alongside financial performance thus needs to be put in place. This is, in fact, an example of CG through government institutions' endeavours to embark on environmental governance in developing countries. Other developing countries are expected to have similar arrangements led by their respective government institutions.

CG is seen to promote SED and minimise environmental degradation, thereby preventing aggressive economic development at the expense of EP. Higher-ranked developing countries, including those in Southeast Asia, the Middle East and Eastern Europe, are moving towards self-sustaining economic development, with the elements of environmental conservation embedded in their laws. For example, Malaysia, ranked 63rd out of 180 countries in the 2016 EPI, compared to 51st in 2014. The drop in this

ranking indicates that Malaysia’s environmental performance has downgraded, possibly due to the inefficiency of CG. This scenario is supported by Malaysia’s CG ranking on the Government Effectiveness (GE) scale, where developing countries in Southeast Asia have stood in the medium scoring range for many years due to the lack of focus on CG policies (Cai et al., 2018). Nonetheless, as shown in Table 1.2, from 2006 to 2018, Malaysia ranked best overall in terms of government effectiveness among the selected developing countries in Southeast Asia.

Table 1.2: Worldwide Governance Indicators’ Government Effectiveness Scoring for Selected Developing Countries from 2006 to 2018 (Aggregate Indicator -2.5 to 2.5)

| Countries | 2006 | 2008 | 2010 | 2012 | 2014 | 2016 | 2018 |
|-------------|-------|-------|-------|-------|-------|-------|------|
| Indonesia | -0.33 | -0.24 | -0.21 | -0.27 | -0.04 | 0.01 | 0.18 |
| Malaysia | 1.27 | 1.11 | 1.12 | 0.92 | 1.12 | 0.87 | 1.08 |
| Philippines | -0.13 | 0.02 | 0 | 0.11 | 0.19 | -0.01 | 0.05 |
| Thailand | 0.45 | 0.22 | 0.19 | 0.22 | 0.34 | 0.34 | 0.35 |
| Vietnam | -0.25 | -0.21 | -0.26 | -0.27 | -0.07 | 0.02 | 0.00 |

[Source: Worldwide Governance Indicators: Government Effectiveness, the year 2006 till 2018 (<https://info.worldbank.org/governance/wgi/>)]

Aggregate indicator: 2.5 is the highest mark, -2.5 is the lowest mark (negative mean performance below average) and 0 is the neutral mark.

In contrast, as shown in Table 1.3, developed countries recorded high scores for government effectiveness, likely because these countries have always focused on EP, such as by preserving biodiversity, natural habitats, and water resources. For example, water affordability is considered a non-compromising issue as water is at the core of SED goals and is critical for human well-being and economic prosperity (Martins et al., 2016). Global water resources and sustainability are greatly affected by climate change (Armal et al., 2018; Jiang et al., 2015), as the constantly changing topography and agricultural land use impact the withdrawal of water from rivers, reservoirs, and the ground (Villarini et al., 2009; MacLennan, 2014). Ultimately, countries that champion SED contribute to environmental conservation and economic development (Sala et al. 2016). As such, there have been several calls for the adoption of conservation practices (Godfray and Garnett, 2014). More certainly, it is high time to refocus on CG.

Table 1.3: Worldwide Governance Indicators' Government Effectiveness Scoring for Selected Developed Countries from 2006 to 2018 (Aggregate Indicator -2.5 to 2.5)

| Countries | 2006 | 2008 | 2010 | 2012 | 2014 | 2016 | 2018 |
|-------------|------|------|------|------|------|------|------|
| Denmark | 2.23 | 2.25 | 2.10 | 1.98 | 1.82 | 1.88 | 1.87 |
| France | 1.63 | 1.58 | 1.43 | 1.34 | 1.40 | 1.41 | 1.48 |
| Germany | 1.65 | 1.52 | 1.57 | 1.59 | 1.73 | 1.73 | 1.62 |
| Norway | 1.88 | 1.84 | 1.88 | 1.91 | 1.83 | 1.87 | 1.89 |
| Switzerland | 2.08 | 2.04 | 1.88 | 1.89 | 2.11 | 2.01 | 2.04 |

[Source: Worldwide Governance Indicators' Government Effectiveness 2006 to 2018 (<https://info.worldbank.org/governance/wgi>)]

Aggregate indicator: 2.5 is the highest mark, -2.5 is the lowest mark (negative mean performance below average) and 0 is the neutral mark.

Several researchers have proven that excessive economic development causes environmental damage. It is also believed that proper CG can maintain SED while improving EP. A small environmental imbalance can turn into a bigger crisis without proper CG, bringing disaster to public well-being along with economic imbalance, food crises, and civil unrest. Therefore, this research's motivation was to contribute to the understanding of the nexus between SED, EP, and CG in developing and developed countries, which experience different impacts from tame and wicked environmental issues. Table 1.4 explains and defines tame and wicked environmental issues in different social contexts, as well as their possible resolutions and examples. For example, tame environmental issues cause food pollution; without proper CG, this can lead to climate change or poor biodiversity that affects human ecology, the evolution of epidemics, and key environmental factors that facilitate disease transmission (Auld and Brand, 2017; Van Seventer and Hochberg, 2017).

Table 1.4: Tame versus Wicked Environmental Problems

| Characteristics | Tame Environmental Problem | Wicked Environmental Problem |
|---|--|---|
| <i>Definition and nature of the problem</i> | <ul style="list-style-type: none"> ❖ Clear definition of the problem elicits the solution ❖ Outcome determined by whether solution is successful or not <ul style="list-style-type: none"> ❖ Scientific based protocols guide solutions ❖ Problem associated with low uncertainty as to system components and outcomes ❖ Shared values as to desirability of outcomes ❖ Problem largely unchanging across time ❖ Problem usually confined to specific area | <ul style="list-style-type: none"> ❖ Disagreement as to definition of the problem as each possible solution changes the problem ❖ No single outcome - assessment whether things are better or worse <ul style="list-style-type: none"> ❖ Solution(s) based on judgement of multiple stakeholders ❖ Problem is associated with high uncertainty as to system components and outcomes ❖ No shared values with respect to societal goals ❖ Problem changes over time ❖ Problem not confined to specific area or region |
| <i>Social context and type of knowledge</i> | <ul style="list-style-type: none"> ❖ Handled by limited number of stakeholders including those who created the problem – a mostly private problem <ul style="list-style-type: none"> ❖ Solution dictates the knowledge necessary to proceed | <ul style="list-style-type: none"> ❖ Public problem dispersed amongst a host of actors that cannot be resolved by a single actor alone <ul style="list-style-type: none"> ❖ Requires co-creation of knowledge to bridge social, environmental & economic tensions |
| <i>Problem resolution</i> | <ul style="list-style-type: none"> ❖ Few stakeholders, so easier to bargain for solution | <ul style="list-style-type: none"> ❖ No definitive solution: depends on judgements of many key stakeholders |
| <i>Examples of problems</i> | <ul style="list-style-type: none"> ❖ Point pollution (single source of pollution is known), food contamination, soil erosion, energy efficiency | <ul style="list-style-type: none"> ❖ Climate change, income inequality, biodiversity, deforestation, water, poverty |

[Source: Barnett et al., 2018]

1.3 Problem Statement

Over the past few decades, the exploitation of nature and the degradation of the environment has increased at an alarming rate (World Bank, 2008). Between 1990 and 2016, the earth lost 1.3 million square kilometres of forest (an area larger than South Africa), with 46% of the trees in these forests being felled by man’s increasing economic activities (Khokhar and Tabary, 2016). Dohong et al. (2017) cited that in Southeast Asia, illegal logging or hunting destroys the biodiversity and ecology of nature, subsequently impacting the indigenous people by shrinking their ancestral land and restricting their nomadic life, since they depend on forest resources for their livelihood. Notably, developing and developed countries face increasingly different sets of economic and environmental issues. The Worldwide Governance Indicator (WGI) and the Environmental Performance Index (EPI) note that the bottom scoring nations are from lower-ranked developing countries, i.e., African and South-West Asian countries. These countries endure a long list of CG issues, with long and troubled legacies of government

debts, corruption, poor healthcare systems, ineffective environmental conservation programmes, low GDP rates, and poor Human Development Index scores (Bhandari and Frankel, 2017). These issues surpass the government's capability to sustain economic growth and preserve EP (Nolan et al., 2018; Ali et al., 2017). Particularly, government debts bring direct economic impacts to developing and developed countries as debt is a key component of socioeconomic welfare that determines the public healthcare system. (Chawla and Uppal, 2012; Dwyer et al., 2011; Drentea and Reynolds, 2012; Sweet et al., 2013, Perez and Ottonello, 2016).

Conventional agricultural and food processing industries contribute to food and nutrition security for the general public as well as to economic growth but result in the excessive consumption of inputs, the degradation of natural resources, and higher pollution due to emissions (Foley et al., 2011), all of which lead to poor EP. As a result of overly focusing on economic development, recurring issues of land fertility degradation, escalating costs of energy and food, depletion of water resources, indiscriminate use of inorganic chemicals, and the effects of climate change have further toughened environmental conservation efforts (Okuyama and Santos, 2014). There is no doubt that financial achievement is important for economies and that its benefits are tremendous; however, governments should not neglect conservation issues as EP has become crucial for social and economic sustainability. Gangi and Abdulrazak (2012) stated that EP is a non-financial achievement that contributes toward SED. Indeed, most developing countries, including Malaysia, Thailand, and India, have revised their economic policies and focused on non-financial achievements to improve their investment climate and promote environmental sustainability. Matzdorf and Meyerl (2014) also cited that developing and developed countries prioritise their EP and ecosystem service agenda above economic development.

Traditionally, SED is measured through financial data, i.e., GDP, Gross National Income (GNI), and the Consumer Price Index (CPI). Al-Mulali et al. (2015) mentioned that SED conflicts with EP, such that maintaining SED demands institutions to sacrifice EP. For example, excessive logging or aquaculture activities may result in environmental degradation while fulfilling economic achievement. Therefore, CG is a potential way forward to moderate the link between SED and EP, as the World Bank (2017) considers inefficient CG as a major deterrent to ending extreme poverty by 2030 and boosting shared prosperity for the poorest 40 percent of people in developing countries. Environmental performance analyses show that pollution and growing demand for scarce natural resources contribute to environmental stress, which can be exacerbated by corrupt practices under poor CG and impede economic growth (Erdogan et al., 2020).

Major developing cities in the world are facing classical examples of environmental stress, which include high CO₂ emissions from vehicles or engines that excessively use fossil fuel. In addition, factories that discharge smokestack emissions and greenhouse gases from the burning of fossil fuels also create air, water, and land pollution (Dong et al., 2019). When pollutants enter the atmosphere or water system, it causes acid rain, chemical spills, and the accumulation of toxic waste. For example, China is spending millions to curb ever-increasing pollution, which is causing billions of dollars of losses to the Chinese economy. In September 2016, during the G20 meeting in China's

Hangzhou, the Chinese authorities shut down factories within a 300km radius of Hangzhou for 12 days and declared mandatory holidays for workers. One-third of Hangzhou's six million residents were requested to leave the city before the G20 summit which was held from the 4th to the 5th of September 2016 (The Times of Indian World, 2016). The objectives were to promote blue skies, clean air, and minimise human and traffic congestion to ensure that the visiting dignitaries enjoyed a pollution-free conference in Hangzhou. Nonetheless, the factory closures ordered during the G20 summit affected thousands of manufacturers, construction, heavy industries, and most importantly, retailers and business operators, causing millions of dollars in economic losses. This is a classic example of economic development affecting EP when there is poor execution of CG. Based on the discussion above, this study aimed to investigate the relationship between SED and EP via the moderation of CG in developing and developed countries.

1.4 Research Gap

In recent years, SED, EP, and CG have emerged as important dimensions for forming sustainable strategies, which affect overall socio-economic stability and sustainable development goals (SDG) achievement in developing and developed countries (Eccles and Serafeim, 2013). However, the relationships between economic development, environmental issues, and institutional governance have been studied extensively at the firm level but rarely at the country level, as it has been regarded as irrelevant to economic and environmental sustainability (Waddock and Graves, 1997; Surroca et al., 2010). As a result, this study adopted a different perspective by investigating the nexus of SED and EP via the moderating role of CG at the country level (Martinez-Alier et al., 2010). Wilkinson and Pickett (2010) found that prioritising SED over environmental issues has proven to be of little or no success in preventing the destruction of ecosystems, biodiversity loss, and global warming; rather, it increases the socio-economic inequalities within and across developing and developed countries. Continuous economic growth only expedites exhaustive energy usage and the degradation of the environment (Muhammad and Khan, 2019). Therefore, this study provides empirical evidence for economic sustainability in developing and developed countries on how CG can strengthen the SDGs and environmental conservation.

From another perspective, developing countries are prioritising economic achievement and placing less emphasis on environmental conservation, as economic activities generate necessities for the population (e.g., food and employment opportunities) that improve living standards but hamper environmental achievements. Meanwhile, developed countries emphasise fostering economic growth and co-existing with environmental conservation to ensure that natural resources continue to provide the necessary raw materials on which human beings rely (OECD, 2019). Therefore, developing and developed countries have different objectives for SED. It can be widely speculated that with the intervention of country governance, developing and developed countries would generally score well or at least achieve a balanced performance of SED and EP. However, Ortas et al. (2015) stated that research on economic sustainability and strategy has focused predominantly on financial aspects rather than EP or CG, even though SED depends heavily on government policies for environmental conservation.

Since CG influences a country's overall economic and environmental performance, this study examined the moderation of CG between SED and EP in developing and developed countries.

Further to that, a research gap was also observed at the country level across developing and developed countries in terms of the influence of CG on SED and EP. Although some initial studies have examined the advantages and disadvantages of seeking sustainability in economic and environmental performance, very little research has focused on the governing institution's role as a moderator between economic sustainability and environmental management (Barnett et al., 2018; Bhanji and Oxley, 2013). This gap is probably more obvious across different stages of national development, i.e., developing and developed countries. Accordingly, this study refocused on and re-examined the perception that SED is irrelevant to EP, instead leaving governing institutions to handle EP issues.

In addition, poorly regulated economic policies have raised numerous impactful issues for EP, such as pollution, logging, deforestation, climate change, and loss of biodiversity (Durand, 2012; Johnson and Paull, 2011). Therefore, governing institutions have become more important than ever to moderate the conflict between SED and EP (Diakaki, Grigoroudis and Stabouli, 2006). Certainly, it is time for the government and institutions to refocus on SED's direct and indirect impacts on EP. This starts by identifying an initial set of indicators of economic data, such as EPI and WGI, to monitor the progress towards the achievement of SDG goals that have been set concerning the progress of environmental policies (Van den Bergh and Botzen, 2018). This study thus considered the economic gap to no longer be the sole objective of the national development agenda; instead, environmental conservation and protection through effective CG should be the key focus in the next era of governance, demanding a check and balance across SED, CG, and EP.

1.5 Research Questions

Based on the problem statement and research gaps discussed above, this study sought to answer three main research questions, as follows:

- i. Is sustainable economic development (SED) significantly related to environmental performance (EP) in developing and developed countries?
- ii. Is country governance (CG) significantly related to environmental performance (EP) in developing and developed countries?
- iii. Does country governance (CG) significantly moderate the relationship between sustainable economic development (SED) and environmental performance (EP) in developing and developed countries?

1.6 Research Objectives

In line with the research questions, there were three main objectives of the study, as follows:

- i. To examine the relationship between sustainable economic development (SED) and environmental performance (EP) in developing and developed countries.
- ii. To investigate the relationship between country governance (CG) on environmental performance (EP) in developing and developed countries.
- iii. To investigate the moderating effect of country governance (CG) on the relationship between sustainable economic development (SED) and environmental performance (EP) in developing and developed countries.

1.7 The Motivation of the Study

There were three motivations for conducting this study. The first motivation was to establish the impact of SED on EP given the continuous economic growth in developing and developed countries. The general belief is that economic development triggers a trade-off with environmental degradation in the form of climate change, deforestation, natural resource exhaustion, and more. Mirza (2011) stated that there is a price to be paid for excessive economic development. This study was thus motivated to discover the existence of and reason for this phenomenon. The second motivation was to establish the relationship between CG and EP, whereby effective CG is perceived to bring significant improvement to environmental conservation and protection in developing and developed countries. However, other factors can deviate from the performance of CG in a country (e.g., corruption, accountability, policy effectiveness, etc.), meaning that countries' different stages of development may engender different outcomes. The third motivation was to evaluate the validity of CG as a moderator between SED and EP. The general perception is that efficient CG enhances the effect of SED on EP by maximising or at least equalising the achievement of both aspects in developing and developed countries. However, CG may face various obstacles in achieving this outcome, including socioeconomic issues, environmental policies, and rules and regulations. Therefore, the overall motivation of this study was to examine the nexus of SED and EP via the moderating effect of CG in developing and developed countries.

1.8 Significance of the Study

This study contributes to the literature by demonstrating the ability of CG to strengthen or weaken the link between SED and EP to varying degrees. CG encompasses the laws, rules, and institutional contexts which are relevant to SED and EP. Consequently, countries with effective government delivery systems would be able to facilitate the

implementation of strong environmental policies and collaborative efforts for sustainability initiatives.

The findings of this study also address the gaps in the available literature by providing new empirical evidence on the moderating impact of CG and efficient government delivery policies. Although studies examining SED have expanded rapidly in recent times, most have examined its technical efficiency, which is typical of financial data or micro- and macroeconomic scenarios. On the other hand, this empirical study shows that economic development affects EP when CG is applied as a new practice going forward. Preliminary findings indicate that countries with higher CG rankings also score well on economic indexes as well as EP rankings. This study will prove that CG facilitates the implementation of sustainability initiatives for both economic development and environmental conservation policies, both in developing and developed countries. In summary, this study contributes to the literature by demonstrating that CG plays an important moderating role in promoting SED without sacrificing EP. In the absence of effective governance, SED will become less meaningful, which will then cause environmental degradation.

This study confirms the importance of effective CG in enhancing the SED-EP link. These findings would encourage policymakers to use CG to introduce new measures and practices which promote SED by considering key EP indicators. Particularly, EPI and WGI should be the main references in adopting and implementing macroeconomic and governance policy practices, as they are among the most reputable indicators to measure economic sustainability and environmental governance. The empirical findings on CG and EP will also provide useful insights and information to policymakers or investors in assessing the performance of developing and developed countries. Governments, institutions, agencies, and investors will also be able to predict the future of a country's efficiency if all the potential determinants and the specific dimensions of SED, EP, and CG are taken seriously into consideration by policymakers. The empirical results from this study might further assist governments or investors to plan and strategize their investment portfolio and investment direction in developing and developed countries, whilst institutions or authorities would be able to formulate effective governing policies. This study's findings on the nexus between SED, CG, and EP also chart the path for future policies on global SDGs as well as green conservation. For example, green conservation activities including green building, eco-tourism, environmentally friendly technologies, and sustainable resource management are not only associated with EP but also uphold SED. All these measurements certainly enhance the socio-economic progress of developing and developed countries.

To effectively tackle serious economic development issues, it is important to address the root of the problem. This includes minimising policy distortions by adopting structural reforms in trade, finance, investment, and competitive policies. More importantly, governments should look into intangible benefits which are meant to promote and encourage the UN's long-term SDGs via major global policy enhancement (United Nations, 2015; Ripple et al., 2017). In this regard, based on the findings of the present study, weak economic development and poor EP practices can be upgraded by reforming the bureaucracy associated with government systems, such as by increasing capacity, improving benefits, adopting performance indicators, streamlining public service processes, promoting accountability and transparency, and enforcing ethics, laws, and

regulations for all civil servants. Such policies should facilitate the production and distribution of basic socioeconomic needs such as food, energy, and other necessities through the provision of infrastructure and investment in an enabling environment. These measures can create effective governance practices if there is an adequate rule of law and strong commitment from senior government leadership in the concerned country (Azam and Emirullah, 2014; Azam et al., 2015, Miao et al.,2017).

1.9 Definition of Key Terms

The definition of the key terms used in this study allows a better understanding of the research scope for discussion and direction.

1.9.1 Sustainable Economic Development (SED)

The World Commission on Environment and Development (WCED) defines SED as continual economic growth that meets the needs of the present economic scenario without sacrificing and compromising environmental quality and performance. This also includes better food security, healthcare services, and education opportunities (WCED, 1987). WCED calls for equal emphasis on the economy, governing policies, and environmental conservation in attaining SED.

1.9.2 Environmental Performance (EP)

Diakaki, Grigorousdis and Stabouli (2006) define EP as principles of risk assessment for environmental degradation and a key technique in the protection and management of the environment. Li et al. (2017) and Meng et al. (2014) suggested that EP is part of the required information disclosure about environmental or ecological performance for conservation and environmental process efficiency. EP also helps alert the public, institutions, and investors by playing an important role in determining investment strategies, conservation efforts, and financial investment decisions (Cormier, Ledoux and Magnan, 2011). When well-constructed, EP may cover all aspects of a country's environmental activities and identify the most significant indicators to be considered for EP evaluation. This indicator is called the Environmental Performance Index (EPI).

1.9.3 Country Governance (CG)

The Worldwide Governance Indicator (2017) defines CG as a set of institutions and traditions by which governments in a country can exercise their authority for the common good of the people and the nation. CG includes the processes by which governments are elected, monitored, and replaced. CG also can effectively formulate and implement governing policies, as well as respect the citizens and institutions that govern economic and social interactions.

1.9.4 Developing Countries

Developing countries are collectively defined as countries from the low-income bracket and the lower-middle and upper-middle groups that are measured based on the annually updated threshold level of the GNI per capita. This group of countries is sometimes also defined as the developing world and varies in their development stages. They also struggle to meet basic needs while attaining SED. As such, in developing countries, economic growth is much more important than environmental conservation efforts.

1.9.5 Developed Countries

Developed countries are commonly referred to as countries from the high-income group based on GNI per capita. This group of countries is also referred to as the developed world, which has attained economic maturity and stable development. In developed countries, SED and EP are equally important for sustainable development.

1.9.6 Sustainable Development Goals (SDG)

The UN's SDGs have led to major global policy changes (United Nations, 2015; Ripple et al., 2017). Governments in developing and developed countries have committed to protecting ecosystems, enhancing environmental performance, promoting social equality, and focusing on SED while simultaneously emphasising the interconnectedness of SDGs to achieve human wellbeing, global peace, and total environmental protection. Though the fundamental accomplishment of SDGs, this interconnectedness creates significant challenges and synergies among SED, EP, and CG as key focus areas for governments in developing and developed countries. These synergies are emerging both across and within the SDGs, excluding trade-offs and compromises. These trade-offs increase the complexity of SDGs and challenge the implementation of coherent governance for SED and EP, thereby increasing the risk of balancing the interests and priorities of SED, EP, and CG (Scherer et al., 2018; Pham-Truffert et al., 2020).

1.10 Organisation of the Thesis

This thesis is separated into a total of five chapters. Chapter 1 presents the background of the study and introduces SED, EP, and CG in developing and developed countries. It also describes the research gaps and research objectives. Chapter 2 provides a literature review of the concepts of SED, EP, and CG as well as their interrelationships. The second chapter also explicates the use of relevant theories based on past empirical research to develop the theoretical framework and hypotheses of the study. Chapter 3 explains the research design, research variables, datasets, and variables employed. The dynamic model is then constructed to meet the research objectives. Chapter 4 reports the data

analysis results of the pooled sample, including descriptive statistics, correlation, multi-collinearity, and panel regression. It then discusses the findings and makes a comparative interpretation across developing and developed countries. Lastly, Chapter 5 summarises the findings and states the study's implications, limitations, and recommendations for future research.

1.11 Summary of the Chapter

This chapter described the background information and the issues that lead to this study. The research gap, research questions and research objectives were designed to identify the problems that have not been answered by any of the existing studies. Next, establishing the motivation and significance of the study and resolving the issues subsequently, while defining the key terms allow understanding of the terminologies. The sustainable development goals (SDG) conclude the benefits, values and contributions of this study.

REFERENCES

- Abreu, M. C. S., Castro, F., Soares, F.A., & Filho, J. C. L. S. (2012). A Comparative Understanding of Corporate Social Responsibility of Textile Firms in Brazil and China. *Journal of Cleaner Production*, 20 (1), 119-126.
- Adams, D., Adams, K., Ullah, S., & Ullah, F. (2019). Globalisation, Governance, Accountability and the Natural Resource 'Curse': Implications for Socio-economic Growth of Oil-rich Developing Countries. *Resources Policy*, 61, 128-140.
- Adams, S., & Klobodu, E. K. M. (2017). Urbanization, Democracy, Bureaucratic Quality, and Environmental Degradation. *J. Policy Model* 39 (6), 1035–1051.
- Adams, J., Broom, A., & Jennaway, M. (2008). Qualitative Methods in Chiropractic Research: One Framework for Future Inquiry. *Journal of Manipulative and Physiological Therapeutics* 31(6), 455-60.
- Adjapong, G., Tingbani, A., Yamoah, F., & Appiah, G. (2020). Innovation Input, Governance and Climate Change: Evidence from Emerging Countries. *Technological Forecasting and Social Change*, 161, 120256.
- Agenor, P.R. (2012). Public Capital, Growth and Welfare: Analytical Foundations for Public Policy. *Princeton University Press, Princeton, New Jersey*.
- Aguinis, H., & Edwards, J. (2013). Methodological Wishes for The Next Decade and How To Make Wishes Come True. *Journal of Management Studies* 51(1), 143-174.
- Aguirre, P., Alonso, J. A., & Jerez, M. (2019). Effectiveness of Capital Account Regulation: Lessons from Brazil and Peru. *International Review of Economics and Finance*, 64, 176–194.
- Assadzadeh, A., Bastan, F., & Shahverdi, A. (2014). The Impact of Environmental Quality and Pollution on Health Expenditures: A Case Study of Petroleum Exporting Countries. In Proceedings of the 29th International Business Research Conference 24–25 November 2014. *Novotel Hotel Sydney Central, Sydney, Australia*, ISBN: 978- 1-922069-64-1.
- Ahmeda, K., & Long, W. (2012). Environmental Kuznets Curve and Pakistan: An Empirical Analysis. *Procedia Economics and Finance*, 1, 4–13.
- Ait-Sahalia, Y., & Xiu, D. (2019). A Hausman Test for The Presence of Market Microstructure Noise in High Frequency Data. *Journal of Econometrics*, 211, 176-205.
- Ajayi, S. I., & Ndikumana, L. (Eds.). (2015). Capital Flight from Africa: Causes, Effects and Policy Issues. *Oxford University Press, Oxford*.

- Akhmouch, A., & Clvreul, D. (2016). Stakeholder Engagement for Inclusive Water Governance: “Practicing What We Preach” with The OECD Water Governance Initiative. *Water (Switzerland)*, 8, 1–17.
- Akinwande, M. O., Dikko, H. G., & Samson, A. (2015). Variance Inflation Factor: As A Condition for The Inclusion of Suppressor Variable(S) In Regression Analysis. *Open Journal of Statistics*, 05(07), 754-767.
- Albalawi, O. H., Houshyar, A., & While B. E. (2020). Developing A Quantitative Model to Evaluate Power Plants Based on Their Environmental Impact. *The Electricity Journal*, 33 (6), 106777.
- Albrizio, S., Kozluk, T., & Zipperer, V. (2017). Environmental Policies and Productivity Growth: Evidence Across Industries and Firms. *Journal of Environmental Economics and Management*, 81, 206–226.
- Aleksynska, M., & Havrylchyk, O. (2013). FDI From the South: The Role of Institutional Distance and Natural Resources. *European Journal of Political Economy*, 29, 38–53.
- Alfaro, L., Kalemli-Ozcan, S., & Volosovych, V. (2008). Why Doesn't Capital Flow from Rich to Poor Countries? An Empirical Investigation. *The Review of Economics and Statistics*, 90(2), 347–368.
- Ali, M., Wang, W., Chaudhry, N., & Geng, Y. (2017). Hospital Waste Management in Developing Countries: A Mini Review. *Waste Management and Research*, 35, 581–592.
- Ali, R., Bukhsh, K., & Yasin, M.A. (2019). Impact of Urbanization on CO2 Emissions in Emerging Economy: Evidence from Pakistan. *Sustain. Cities Soc.* 48.
- Almeida, T., Cruz, L., Barata, E., & Garcia-Sanchez, I. (2016). Economic Growth and Environmental Impacts: An Analysis Based on A Composite Index of Environmental Damage. *Ecological Indicators*, 76, 119–130.
- Al-Mulali, U., Weng-Wai, C., Sheau-Ting, L., & Mohammed, A.H. (2015). Investigating the Environmental Kuznets Curve (EKC) Hypothesis by Utilizing the Ecological Footprint as an Indicator of Environmental Degradation. *Ecological Indicators*, 48, 315–323.
- Aluko, O.A., & Obalade, A.A. (2020). Financial Development and Environmental Quality in SubSaharan Africa: Is There a Technology Effect? *Sci. Total Environ.* 747.
- Anand, M., & Mulyani, M. (2020). Advancing ‘Environmental Subjectivity’ in the Realm of Neoliberal Forest Governance: Conservation Subject Creation in The Lokkere Reserve Forest, India. *Geoforum*, 110, 106-115.

- Ansari, M. A., Haider, S., & Khan, N. A. (2020). Environmental Kuznets Curve Revisited: An Analysis using Ecological and Material Footprint. *Ecological Indicators*, 115, 106416.
- Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On Making Causal Claims: A Review and Recommendations. *The Leadership Quarterly*, 21(6), 1086–1120.
- Antonello, A., & Howkins, A. (2020). The Rise of Technocratic Environmentalism: The United States, Antarctica, and The Globalisation of The Environmental Impact Statement. *Journal of Historical Geography*, 68, 55-64.
- Ardoin, N. M., Biedenweg, K., & O'Connor, K. (2015) Evaluation in Residential Environmental Education: An Applied Literature Review of Intermediary Outcomes. *Appl. Environ. Educ. Commun.*, 14, 43–56.
- Arena, M., Duque Ciceri, N., Terzi, S., Bengo, I., Azzone, G., & Garetti, M. (2009). A State-of-the-Art of Industrial Sustainability: Definitions, Tools and Metrics. *International Journal of Product Lifecycle and Management*, 4, 207-251.
- Ariens, S., Ceylemans, E., & Adolf, J. K. (2020). Time Series Analysis of Intensive Longitudinal Data in Psychosomatic Research: A Methodological Overview. *Journal of Psychosomatic Research*, 137, 110191.
- Armal, S., Devineni, N., & Khanbilvardi, R. (2018). Trends in Extreme Rainfall Frequency in the Contiguous United States: Attribution to Climate Change and Climate Variability Modes. *Journal of Climate*, 31, 369–385.
- Armstrong, A., Stedman, R., Bishop, J., & Sullivan, P. (2012) What's a Stream Without Water? Disproportionality in Headwater Regions Impacting Water Quality. *Environmental Management*, 50(5), 849–860.
- Aronson, J., Brancalion, P. H. S., Durigan, G., Rodrigues, R. R., Engel, V. L., Tabarelli, M., Torezan, J. M. D., Gandolfi, S., de Melo, A. C. G., Kageyama, P. Y., Marques, M. C. M., Nave, A. G., Martins, S. V., Gandara, F. B., Reis, A., Barbosa, L. M., & Scarano, F. R. (2011). What Role Should Government Regulation Play in Ecological Restoration? Ongoing Debate in São Paulo State, Brazil. *Restoration Ecology*, 19, 690–695.
- Arrow, K. J., Dasgupta, P., Goulder, L. H., Mumford, K.J., & Oleson, K. (2012). Sustainability and the Measurement of Wealth. *Environment and Development Economics*, 17, 317–353.
- Arslan, A., McCarthy, N., Lipper, L., Asfaw, S., Cattaneo, A., & Kokwe, M. (2015). Climate Smart Agriculture? Assessing the Adaptation Implications in Zambia. *J. Agric. Econ.* 66, 753 780.
- Asamoah, M. E., Adjasi, C.K., & Alhassan, A.L. (2016). Macroeconomic Uncertainty, Foreign Direct Investment and Institutional Quality: Evidence from Sub-Saharan Africa. *Economic System.*, 40 (4), 612–621.

- Asiedu, E., & Lien, D. (2011). Democracy, Foreign Direct Investment and Natural Resources. *Journal of International Economics*, 84(1), 99–111.
- Aslanli, K. (2015). Fiscal Sustainability and the State Oil Fund in Azerbaijan. *Journal of Eurasian Study*, 6 (2), 114–121.
- Asumadu, S. S., & Vladimir, S. (2019). Effect of Foreign Direct Investments, Economic Development and Energy Consumption on Greenhouse Gas Emissions in Developing Countries. *Sci. Total Environ.* 646, 862–871.
- Auld, S. K., & Brand, J. (2017). Simulated Climate Change, Epidemic Size, and Host Evolution Across Host–parasite Populations. *Glob. Change Biol.* 23, 5041405–5053.
- Avom, D., Nkengfack, H., Fotio, H. K., & Totouom, A. (2020). ICT and Environmental Quality in Sub-Saharan Africa: Effects and Transmission Channels. *Technol. Forecast. Soc. Chang.* 155.
- Azam, K. M. (2013). The Effects of Corruption on FDI Inflows: Some Empirical Investigation from Less Developed Countries. *Journal of Applied Sciences Research*, 9. 3462-3467.
- Azam, M., & Emirullah, C. (2014). The Role of Governance in Economic Development: Evidence from some Selected Countries in Asia and The Pacific. *International Journal of Social Economics*, 41(12), 1265–1278.
- Azam, M., Khan, A., Bakhtyar, B., & Emirullah, C. (2015). The Causal Relationship Between Energy Consumption and Economic Growth in the ASEAN-5 Countries. *Renewable and Sustainable Energy Reviews*, 47, 732-745.
- Balaine, H. G. (2009). *Foreign Direct Investment*. Nova Science Publishers, New York.
- Barbati, A., Marchetti, M., Chirici, G., & Corona, P. (2014). European Forest Types and Forest Europe SFM Indicators: Tools for Monitoring Progress on Forest Biodiversity Conservation. *Forest Ecology and Management*, 321, 145–157.
- Barbie, P., & Leadbeter, P. (2014). *Law as Change: Engaging with the Life and Scholarship of Adrian Bradbrook*, 223 University of Adelaide Press.
- Barnes, C., Claus, R., Driessen, P., Dos Santos, M. J. F., George, M. A., & Van Laerhoven, F. (2017). Uniting Forest and Livelihood Outcomes? Analyzing External Actor Interventions in Sustainable Livelihoods in A Community Forest Management Context. *Int. J. Commons*, 11 (1), 532–571.
- Barnett, M. L., Henriques, I., & Husted, B. (2018). Governing the Void between Stakeholder Management and Sustainability. *Advances in Strategic Management*, 38, 121-143.
- Barnosky, A. D., & Hadly, E. A. (2016). *Tipping Point for Planet Earth: How Close Are We to the Edge?* Thomas Dunne Books, New York.

- Barrientos, S., Gereffi, G., & Rossi, A. (2011). Economic and Social Upgrading in Global Production Networks: A New Paradigm for A Changing World. *International Labour Review*, 150 (3–4), 319–340.
- Batabyal, S., Islam, F., & Khaznaji, M. (2018). On The Sources of The Great Moderation: Role of Monetary Policy and Intermediate Inputs. *Economic Modelling*, 74, 1–9.
- Bavar, M., Sarrafzadeh, M. H., Asgharnejad, H., & Norouzi-Firouz, H. (2018) Water Management Methods in Food Industry: Corn Refinery as a Case Study. *Journal of Food Engineering*, 238, 78–84.
- Beatty, T. K. M., & Shimshack, J. P. (2014). Air Pollution and Children's Respiratory Health: A Cohort Analysis. *Journal of Environmental Economics and Management*, 67 (1), 39–57.
- Belay, A., Recha, J. W., Woldeamanuel, T., & Morton, J. F. (2017). Smallholder Farmers' Adaptation to Climate Change and Determinants of Their Adaptation Decisions in the Central Rift Valley of Ethiopia. *Agric. Food Secur.* 6, 24.
- Benassy-Quere, A., Coupet, M., & Mayer, T. (2007). Institutional Determinants of Foreign Direct Investment. *The World Economy*, 30(5), 764–782.
- Bera, A. K., Dogan, O., Taspinar, S., & Leiluo, Y. (2019). Robust LM Tests for Spatial Dynamic Panel Data Models. *Regional Science and Urban Economics*, 76, 47–66.
- Bergendahl, J. A., Sarkis, J., & Timko, M. T. (2018). Transdisciplinary and the Food Energy and Water Nexus: Ecological Modernization and Supply Chain Sustainability Perspectives. *Resources, Conservation and Recycling*, 133, 309–319.
- Berliner, D., & Prakash, A. (2013). Signalling Environmental Stewardship in Corrupt Societies: The Case of ISO 14001. *Law & Society Review*, 47, 2.
- Bernerth, J. B., & Aguinis, H. (2016). A Critical Review and Best-Practice Recommendations for Control Variable Usage. *Personnel Psychology*, 69(1), 229–283.
- Bertheussen, B. A., Dreyer, B., & Reiertsen, A. (2020), Economic Sustainability of Quality-Enhancing Business Models in The Norwegian Cod Industry. *Marine Policy*, 113, 103821.
- Bhandari, P., & Frankel, J. (2017) Nominal GDP Targeting for Developing Countries. *Research in Economics*, 71, 491–506.
- Bhanji, Z., & Oxley, J. (2013). Overcoming The Dual Liability of Foreignness and Privatness in International Corporate Citizenship Partnerships. *Journal of International Business Studies*, 44.

- Bhardwaj, A., Joshi, M., Khosla, R., & Dubash, N. K. (2019). More Priorities, More Problems? Decision-Making With Multiple Energy, Development and Climate Objectives. *Energy Research & Social Science*, 49 (1), 143–157.
- Billy, K. Y. K., Joe, H. Y. C., Anniga, C. K. L., Cheung, S. G., & Paul, K. S. S. (2017). Conservation Education Program for Threatened Asian Horseshoe Crabs: A Step Towards Reducing Community Apathy to Environmental Conservation. *Journal for Nature Conservation*, 35, 53–65.
- Bin, R. L. L., & Yi, L. S. (2015). Board Mechanisms and Performance of Government-Linked Companies on Bursa Malaysia. *Procedia Economics and Finance*, 31, 399-417.
- Blazevic, B., & Jelusic, A. (2006). Modelling Regional Economic Development. *Kybernetes*, 35, 1190-1202.
- Bluwstein, J. (2017). Creating Ecotourism Territories: Environmentalities in Tanzania's Community-Based Conservation. *Geoforum*, 83, 101–113.
- Boas, I., Biermann, F., & Kanie, N. (2016). Cross-Sectoral Strategies in Global Sustainability Governance: Towards A Nexus Approach. *International Environmental Agreements*, 16, 449-464.
- Bodnaruk, A., Massa, M., & Yadav, V. (2017). Family Ownership, Country Governance, and Foreign Portfolio Investment. *Journal of Empirical Finance*, 41, 96-115.
- Bose, N., Haque, M. E., & Osborn, D. R. (2007). Public Expenditure and Economic Growth: A Disaggregated Analysis for Developing Countries. *Manchester Sch.*, 75 (5), 533–556.
- Brandi, C., Schwab, J., Berger, A., & Morin JF. (2020). Do Environmental Provisions in Trade Agreements Make Exports from Developing Countries Greener? *World Development*, 129, 104899.
- Braveman, P., & Gottlieb, L. (2014). The Social Determinants of Health: It's Time to Consider the Causes of The Causes. *Public Health Reports*, 129, 19–31.
- Braveman, P. A., Kumanyika, S., Fielding, J., LaVeist, T., Borrell, L. N., Manderscheid, R., & Troutman, A. (2011). Health Disparities and Health Equity: The Issue Is Justice. *American Journal of Public Health*, 101, S149–155.
- Brock, W. A., & Taylor, M. S. (2010). The Green Solow Models. *Journal of Economic Growth*, 5, 127–153.
- Bulte, E., & Damania, R. (2008). Resources For Sale: Corruption, Democracy and The Natural Resource Curse. *Journal of Economic Analysis & Policy*, 8 (1), 5.
- Burger, J. D., Warnock, F. E., & Warnock, V. C. (2012). Emerging Local Currency Bond Markets. *Finance Analysis Journal*, 68 (4), 73–93.

- Burton, D. M., Gomez, I. A., & Love, H. A. (2011). Environmental Regulation Cost and Industry Structure Changes. *Land Economics*, 87 (3), 545–557.
- Burton, K. J., Rogathe, J., Whittaker, R., Mankad, K., Hunter, E., & Burton, M. J. (2012). Epilepsy in Tanzanian Children: Association with Perinatal Events and Other Risk Factors. *Epilepsia*, 53(4), 752–60.
- Busch, T., & Hoffmann, V. H. (2011). How Hot Is Your Bottom Line? Linking Carbon and Financial Performance. *Business and Society*, 50 (2), 233-265.
- Buschke, F.T., Botts, E.A., & Sinclair, S.P. (2019). Post-Normal Conservation Science Fills the Space Between Research, Policy and Implementation. *Conservation Science and Practice*, 1, 73.
- Cai, X., Che, X., Zhu, B., Zhao, J., & Xie, R. (2018). Will Developing Countries Become Pollution Havens for Developed Countries? An Empirical Investigation in The Belt and Road. *Journal of Cleaner Production*, 198, 624–632.
- Callahan, K. (2007). People, Politics, Participation and Place. *Public Administration Review*, 67950, 950-4.
- Camilleri, M.A. (2015). Environmental, Social and Governance Disclosures in Europe. Sustainability Accounting. *Management and Policy Journal*, 6(2), 224-242.
- Caravaggio, N., (2020). Economic Growth and The Forest Development Path: A Theoretical Re-Assessment of The Environmental Kuznets Curve for Deforestation. *Forest Policy and Economics*, 118, 102259.
- Cardarelli, R., Elekdag, S., & Kose, M. A. (2010). *Capital Inflows: Macroeconomic Implications and Policy Responses (No. WP/09/40)*, IMF Working Paper. Washington, D.C: International Monetary Fund.
- Cassimon, D., Prowse, M., & Essers, D. (2009). The Pitfalls and Potential of Debt-For-Nature Swaps: A US-Indonesian Case Study. *Global Environmental Change*, 21, 93 – 102.
- Céspedes, L.F., & Velasco, A. (2012). Macroeconomic Performance During Commodity Price Booms and Busts. *IMF Economic Review*, 60, 570–599.
- Ceulemans, K., De Prins, M., Cappuyns, V., & De Coninck, W. (2011). Integration Of Sustainable Development in Higher Education's Curricula of Applied Economics: Large-Scale Assessments, Integration Strategies and Barriers. *Journal of Management Organization*, 17 (5), 621-640.
- Chawla, R., & Uppal, S. (2012). Household debt in Canada. *Component of Statistics Canada Catalogue no. 75-001-X. Perspectives on Labour and Income*, 13.
- Chekouri, S. M., Chibi, A., & Benbouziane, M. (2020). Examining the Driving Factors of CO2 Emissions Using the STIRPAT Model: The Case of Algeria. *International Journal of Sustainable Energy*, 39 (10), 927-940.

- Chen, C. J., Guo, R. S., Hsiao, Y. C., & Chen, K. L. (2018). How Business Strategy in Non-Financial Firms Moderates the Curvilinear Effects of Corporate Social Responsibility and Irresponsibility on Corporate Financial Performance. *Journal of Business Research*, 92, 154–167.
- Chen, W., Zhou, K. L., & Yang, S. L. (2017). Evaluation Of China's Electric Energy Efficiency Under Environmental Constraints: A DEA Cross Efficiency Model Based on Game Relationship. *Journal of Cleaner Production*, 164, 38-44.
- Chen, Y. H., Wen, X. W., Wang, B., & Nie, P. Y. (2017). Agricultural Pollution and Regulation: How to Subsidize Agriculture? *J. Clean. Prod.* 164, 258–264.
- Cheng, Z. H., Li, L. S., & Liu, J. (2017). The Emissions Reduction Effect and Technical Progress Effect of Environmental Regulation Policy Tools. *Journal of Cleaner Production*, 149, 191-205.
- Cheng, Z. H., Li, L.S., & Liu, J. (2018). The Spatial Correlation and Interaction Between Environmental Regulation and Foreign Direct Investment. *Journal of Regulatory Economics*, 54 (2), 124-146.
- Cheng, Z.H., Wang, F., Keung, C., & Bai, Y.X. (2017). Will Corporate Political Connection Influence the Environmental Information Disclosure Level? Based On the Panel Data Of A-Shares from Listed Companies in Shanghai Stock Market. *Journal of Business Ethics*, 143(1), 209-221.
- Chiang, K. L., & Cheng, C. Y. (2014). Prevalence And Neuro-Psychiatric Comorbidities of Pediatric Epilepsy in Taiwan: A National Population-Based Study. *Epilepsy Research*, 108(8), 1451–60.
- Chontanawat, J. (2018). Decomposition Analysis of CO2 Emission in ASEAN: An Extended IPAT Model. *Energy Procedia*, 153, 186–190.
- Cicmil, S., Ecclestone, R., & Collins, K. (2017). *Responsible Education in a Complex Context of Sustainable Development: Co-Creating a Pedagogic Framework for Participatory Reflection and Action*. Taylor & Francis (Routledge).
- Ciplet, D., & Roberts, J. T. (2017). Climate Change and The Transition to Neoliberal Environmental Governance. *Global Environmental Change*, 46, 148-156.
- Claessens, S., Kose, M. A., & Terrones, M. E. (2010). The Global Financial Crisis: How Similar? How Different? How Costly? *Journal of Asian Economics*, 21, 247-264.
- Claussnitzer, M., Cho, J. H., Collins, R., Cox, N. J., Dermitzakis, E. T., Hurles, M. E., Kathiresan, S., Kenny, E. E., Lindgren, C. M., MacArthur, D. G., North, K. N., Plon, S. E., Rehm, H. L., Risch, N., Rotimi, C. N., Shendure, J., Soranzo, N., & McCarthy, M.I. (2020). A Brief History of Human Disease Genetics. *Nature* 577, 179–189.

- Cole, M. J., Bailey, R. M., & New, M. G. (2014). Tracking Sustainable Development with a National Barometer for South Africa Using a Downscaled “Safe and Just Space” Framework. *Proceedings of the National Academy of Sciences*, 111, 4399–4408.
- Colignatus, T., (2020). National Accounts in The Anthropocene: Hueting's Environmental Functions and Environmentally Sustainable National Income: Translation and Relevance for Ecosystem Services. *Ecosystem Services*, 43, 101094.
- Collins, M., & Dempsey, S. (2018). Residential Energy Efficiency Retrofits: Potential Unintended Consequences. *Journal of Environmental Planning and Management*, 62(12), 2010-2025.
- Contessi, S., & El-Ghazaly, H. S. (2010). Multinationals from Emerging Economies: Growing but Little Understood. *Regional Economist*, 16–17.
- Contractora, F. J., Dangolb, R., Nuruzzamana, N., & Raghunath, S. (2020). How Do Country Regulations and Business Environment Impact Foreign Direct? *International Business Review*, 29, 101640.
- Copeland, B. R., & Taylor, M.S. (2004). Trade, Growth, and the Environment. *Journal of Economic Literature, American Economic Association*, 42(1), 7-71.
- Cormier, D., Ledoux, M. J., & Magnan, M. (2011). The Informational Contribution of Social and Environmental Disclosures for Investors. *Management Decision*, 49(8), 1276–1304.
- Corson, C. (2010). Shifting Environmental Governance in A Neoliberal World: US AID For Conservation. *Antipode*, 42(3), 576–602.
- Cortes-Borda, D., Ruiz-Hernandez, A., Guillen-Gosalbez, G., Llop, M., Guimera, R., & Sales-Pardo, M. (2015). Identifying Strategies for Mitigating the Global Warming Impact of the EU-25 Economy Using a Multi-Objective Input-Output Approach. *Energy Policy*, 77, 21-30.
- Cosens, B. A., Gunderson, L., & Chaffin, B. C. (2018). Introduction to the Special Feature Practicing Panarchy: Assessing Legal Flexibility, Ecological Resilience, And Adaptive Governance in Regional Water Systems Experiencing Rapid Environmental Change. *Ecology and Society*, 23 (4).
- Coumans, C. (2019). Minding The “Governance Gaps”: Re-Thinking Conceptualizations of Host State “Weak Governance” and Re-Focussing on Home State Governance to Prevent and Remedy Harm by Multinational Mining Companies and Their Subsidiaries. *The Extractive Industries and Society*, 6, 675-687.
- Cracolici, M., Cuffaro, F., M., & Nijkamp, P. (2010). The Measurement of Economic, Social and Environmental Performance of Countries: A Novel Approach. *Social Indicators Reseach*, 5, 339–356.

- Crowley, R. A. (2016). Climate Change and Health: A Position Paper of The American College of Physicians. *Annals of Internal Medicine*, 164 (9), 608–610.
- Csavina, J., Field, J., Taylor, M. P., Gao, S., Landazuri, A., Betterton, E. A., & Saez, A. E. (2012). A Review on The Importance of Metals and Metalloids in Atmospheric Dust and Aerosol from Mining Operations. *Science of the Total Environment*, 433, 58-73.
- Cuesta, J., Htenas, A., & Tiwari, S. (2014). Monitoring Global and National Food Price Crises. *Food Policy*, 49, 84-94.
- Cui, L. B., Fan, Y., Zhu, L., & Bi, Q. H. (2014). How Will the Emissions Trading Scheme Save Cost for Achieving China's 2020 Carbon Intensity Reduction Target? *Applied Energy*, 136, 1043-1052.
- Curti, F., & Mihov, A. (2018). Fraud Recovery and The Quality of Country Governance. *Journal of Banking & Finance*, 87, 446-461.
- Czerny, A., & Letmathe, P. (2017). Eco-efficiency: GHG Reduction Related Environmental and Economic Performance. The Case of The Companies Participating in The EU Emissions Trading Scheme. *Business Strategy and the Environment*, 26 (6), 791-806.
- D'Alessandro, S. (2007). Non-Linear Dynamics of Population and Natural Resources: The Emergence of Different Patterns of Development. *Ecological Economics*, 62, 473 – 481.
- Daude, C., & Stein, E. (2008). The Quality of Institutions and Foreign Direct Investment. *Economics & Politics*, 19(3), 317–344.
- Davis, J. S., & Zlate, A. (2019). Monetary Policy Divergence and Net Capital Flows: Accounting for Endogenous Policy Responses. *Journal of International Money and Finance*, 94, 15-31.
- De Marchi, V., Di Maria, E., & Micelli, S. (2013a). Environmental Strategies, Upgrading and Competitive Advantage in Global Value Chains. *Bus. Strat. Environ.*, 22, 62–72.
- De Marchi, V., Di Maria, E., & Ponte, S. (2013). The Greening of Global Value Chains: Insights from The Furniture Industry. *Competition and Change*, 17 (4), 299–318.
- DEA (Department of Environmental Affairs). (2018). *Draft 3rd South African Environmental Outlook Report. A Report on the State of the Environment*. Department of Environmental Affairs, Pretoria, South Africa.
- Debrah, C., Owusu-Manu, D. G., Kissi, E., Oduro-Ofori, E., & Edwards, D. J. (2020). Barriers To Green Cities Development in Developing Countries: Evidence from Ghana. *Smart and Sustainable Built Environment*. DOI: 10.1108/SASBE-06-2020-0089

- Deegan, C. (2017). Twenty-Five Years of Social and Environmental Accounting Research Within Critical Perspectives of Accounting: Hits, Misses and Ways Forward. *Critical Perspectives on Accounting*, 43, 65–87.
- Demirci, I., Huang, J., & Sialmc, C. (2019). Government Debt and Corporate Leverage: International Evidence. *Journal of Financial Economics*, 133, 337–356.
- Denham, F. C., Biswas, W. K., Solah, V. A., & Howieson, J. R. (2016). Greenhouse Gas Emissions from A Western Australian Finfish Supply Chain. *Journal of Cleaner Production*, 112, 2079-2087.
- Diakaki, C., Grigoroudis, E., & Stabouli, M., (2006). A Risk Assessment Approach in Selecting Environmental Performance Indicators. *Management of Environmental Quality: An International Journal*, 17(2),126 – 139.
- Diamond, J. (2005). *Collapse. How Societies Choose to Fail or Succeed*. Penguin Group, New York, USA.
- Dipasquale, C., Fedrizzi, R., Bellini, A., Gustafsson, M, Ochs, F., & Bales, C. (2019). Database Of Energy, Environmental and Economic Indicators of Renovation Packages for European Residential Buildings. *Energy and Buildings*, 203, 109427.
- Dohong, A., Aziz. A. A., & Dargusch, P. (2017). A Review of The Drivers of Tropical Peatland Degradation in South-East Asia. *Land use policy*, 69, 349-360.
- Dong, B., Zhang, Y., & Song, H. (2019). Corruption as a Natural Resource Curse: Evidence from The Chinese Coal Mining. *China Economic Review*, 57, 101314.
- Dong, K., Dong, X., & Dong, C. (2019). Determinants of the Global and Regional Co2 Emissions: What Causes What and Where? *Applied Economics*, 1–14.
- Dong, Y., Wang, X., Jin, J., Qiao, Y., & Shi, L. (2014). Effects of Eco-Innovation Typology On Its Performance: Empirical Evidence From Chinese Enterprises. *Journal of Engineering and Technology Management*, 34, 78–98.
- Dormann, C. F., Elith, J., Bacher, S., Buchmann, C., Carl, G., Carré, G., Marquéz, J. R. G., Gruber, B., Lafourcade, B., Leitão, P. J., Münkemüller, T., McClean, C., Osborne, P. E., Reineking, B., Schröder, B., Skidmore, A. K., Zurell, D., & Lautenbach, S. (2013). Collinearity: A Review of Methods to Deal with It and A Simulation Study Evaluating Their Performance. *Ecography*, 36, 27–46.
- Doro, E., & Kufakurinani, U. (2018). Resource Curse or Governance Deficit? The Role of Parliament in Uganda’s Oil and Zimbabwe’s Diamonds. *Journal of South Africa Study*, 44 (1), 43–57.
- Dou, J. M., & Han, X. (2019). How Does the Industry Mobility Affect Pollution Industry Transfer In China: Empirical Test On Pollution Haven Hypothesis and Porter Hypothesis. *Journal of Cleaner Production*, 217, 105-115.

- Drentea, P., & Reynolds, J. R. (2012). Neither A Borrower nor A Lender Be: The Relative Importance of Debt and SES For Mental Health Among Older Adults. *Journal of Aging Health*, 24 (4), 673–695.
- Dridi, M. (2013). Corruption and economic growth: The transmission Channels. *Journal of Business Studies Quarterly*, 4, 121-152.
- Drine, I. (2012). Institutions, Governance and Technology Catch-Up in North Africa. *Economics Modelling*, 29 (6), 2155–2162.
- Drugov, M. (2010). Competition In Bureaucracy and Corruption. *Journal of Development Economics*, 92 (2), 107–114.
- Du, W., Pflueger, C. E., & Schreger, J. (2015). *Sovereign Debt Portfolios, Bond Risks, and the Credibility of Monetary Policy*. Working Paper. Stanford University.
- Dubey, R., Gunasekaran, A., Childe, S. J., Papadopoulos, T., Luo, Z., Wamba, S. F., & Roubaud, D. (2019). Can Big Data and Predictive Analytics Improve Social and Environmental Sustainability? *Technological Forecasting and Social Change*, 144, 534–545.
- Durand, J. F. (2012). The Impact of Gold Mining on The Witwatersrand on The Rivers and Karst System of Gauteng and North West Province, South Africa. *Journal of African Earth Sciences*, 68, 24–43.
- Dwyer, R. E., McCloud, L., & Hodson, R. (2011). Youth Debt, Mastery, And Self-Esteem: Class-Stratified Effects of Indebtedness on Self-Concept. *Social Science Research*, 40 (3), 727–741.
- Dzhumashev, R. (2014). Corruption And Growth: The Role of Governance, Public Spending, And Economic Development. *Economic Modelling*, 37(C), 202–215.
- Eccles, R., & Serafeim, G. (2013). The Performance Frontier: Innovating for A Sustainable Strategy. *Harvard business review*, 91. 50-6, 58, 60, 150.
- Eckersley, R. (2015). Beyond inequality: Acknowledging the Complexity of Social Determinants of Health. *Social Science & Medicine*, 147, 121–125.
- Eder, L. V., Filimonova, I. V., Provornaya, I. V., Komarova, A. V., & Nikitenko, S. M. (2017). New Directions for Sustainable Development of Oil and Gas Industry of Russia: Innovative Strategies, Regional Smart Specializations, Public–Private Partnership. *International Multidisciplinary Scientific GeoConference. Surveying, Geology and Mining, Ecology and Management*, 17(15), 365–72.
- Eiadat, Y., Kelly, A., Roche, F., & Eyadat, H. (2008). Green and Competitive? An Empirical Test of The Mediating Role of Environmental Innovation Strategy. *Journal of World Business*, 43 (2), 131-145.

- Elum, Z. A., & Momodu, A. S. (2017). Climate Change Mitigation and Renewable Energy for Sustainable Development in Nigeria: A Discourse Approach. *Renew. Sustainable Energy Review*, 76, 72-80.
- Elwert, F. (2013). Graphical Causal Models, *Handbook of Causal Analysis for Social Research*. 245–273: Springer.
- Elwert, F., & Winship, C. (2014). Endogenous Selection Bias: The Problem of Conditioning on A Collider Variable. *Annual Review of Sociology*, 40, 31–53.
- Endrikat, J., Guenther, E., & Hoppe, H. (2014). Making Sense of Conflicting Empirical Findings: A Meta-Analytic Review of The Relationship Between Corporate Environmental and Financial Performance. *European Management Journal*, 32 (5), 735-751.
- Engel, C., & Park, J. (2016). *Debauchery and Original Sin: The Currency Composition of Sovereign Debt, Working Paper*. University of Wisconsin-Madison and National University of Singapore.
- Er, A. C., Mol, A. P. J., & Kpppen C.S.A. (2012). Ecological Modernization in Selected Malaysian Industrial Sectors: Political Modernization and Sector Variations. *Journal of Cleaner Production*, 24, 66-75.
- Erdogan, S., Yildirim, D. C., & Gedikli, A. (2020). Natural Resource Abundance, Financial Development and Economic Growth: An Investigation on Next-11 Countries. *Resources Policy*, 65, 101559.
- Ertimi, B., & Saeh, M. (2013). The Impact of Corruption on Some Aspects of the Economy. *International Journal of Economics and Finance*, 5.
- Erum, N., & Hussain, S. (2019) Corruption, Natural Resources and Economic Growth: Evidence from OIC Countries. *Resources Policy*, 63, 101429.
- Estrada, G., Park, D., & Ramayandi, A. (2010). Financial Development and Economic Growth in Developing Asia. *ADB Economics Working PaPer Series*, 233, 1-54.
- Evans, A. E., Mateo-Sagasta, J., Qadir, M., Boelee, E., & Ippolito, A. (2019). Agricultural Water Pollution: Key Knowledge Gaps and Research Needs. *Current Opinion in Environmental Sustainability*, 36, 20-27.
- Fang, C. L., Zhou, C. H., Gu, C. L., Chen, L. D., & Li, S. C. (2017). A Proposal for The Theoretic Analysis of The Interactive Coupled Effects Between Urbanization and The Eco-Environment in Mega-Urban Agglomerations. *Journal Geographical Sciences*, 27(12), 1431–1449.
- Fantom, N., & Serajuddin, U. (2016). The World Bank's Classification of Countries by Income (English). Policy Research Working Paper; No. WPS 7528. Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/408581467988942234/The-World-Banks-classification-of-countries-by-income>.

- Farla, K. (2014). Determinants Of Firms' Investment Behavior: A Multilevel Approach. *Applied Economic*, 46(34), 4231–4241.
- Fernandes, D. A. (2017). Permanent Sovereignty and Environmental Protection, *Journal Faculty Law, Federal University Minas Gerais*, 70, 222–248.
- Fernandez, A., Rebucci, A., & Uribe, M. (2015). Are Capital Controls Countercyclical? *Journal of Monetary Economics*, 76, 1-14.
- Filimonova, I.V., Provornaya, I. V., Komarova, A., V., Zemnukhova, E. A., & Mishenin, M. V. (2020). Influence of Economic Factors on The Environment in Countries with Different Levels of Development. *Energy Reports*, 6, 27-31.
- Fineberg, H. V. (2012). A Successful and Sustainable Health System — How to Get There from Here. *The New England journal of medicine*, 366. 1020-1027.
- Fiorino, D. J. (2011). Explaining National Environmental Performance: Approaches, Evidence, and Implications. *Policy Sciences*, 44, 367–389.
- Fischer, J., Abson, D. J., Butsic, V., Chappell, M. J., Ekroos, J., Hanspach, J., Kuemmerle, T., Smith, H. G., & Vonwehrden, H. (2014). Land Sparing Versus Land Sharing: Moving Forward. *Conserv. Lett.* 7 (3), 149–157.
- Fischer, R., & Boer, D. (2011). What Is More Important for National Well-Being: Money or Autonomy? A Meta-Analysis of Well-Being, Burnout, And Anxiety Across 63 Societies. *Journal of Personality and Social Psychology*, 101, 164–184.
- Fisher, P.B., & McAdams, E. (2015). Gaps In Sustainability Education: The Impact of Higher Education Coursework on Perceptions of Sustainability. *International Journal of Sustainability in Higher Education*, 16 (4), 407-423.
- Fletcher, R. (2010). Neoliberal Environmentalism: Towards a Poststructuralist Political Ecology of The Conservation Debate. *Conserv. Soc.* 8 (3), 171–181.
- Fletcher, R. (2017). Environmentalism Unbound: Multiple Governmentalities in Environmental Politics. *Geoforum*, 85, 311–315.
- Flynn, A., & Hacking, N. (2019). Setting Standards for A Circular Economy: A Challenge Too Far for Neoliberal Environmental Governance? *Journal of Cleaner Production*, 212, 1256-1267.
- Fohda, M., & Seegmuller, T. (2014). Environmental Quality, Public Debt and Economic Development. *Environmental & Resource Economics*, 57, 487–504.
- Foldvary, F. E., & Minola, L. A. (2017). The Taxation of Land Value as The Means Towards Optimal Urban Development and The Extirpation of Excessive Economic Inequality. *Land Use Policy*, 69, 331-337.

- Foley, J. A., Ramankutty, N., Brauman, K. A., Cassidy, E. S., Gerber, J. S., Johnston, M., Mueller, N. D., O'Connell, C., Ray, D. K., West, P. C., Balzer, C., Bennett, E. M., Carpenter, S. R., Hill, J., Monfreda, C., Polasky, S., Rockstrom, J., Sheehan, J., Siebert, S., Tilman, D., & Zaks, D. P. M. (2011). Solutions for a Cultivated Planet. *Nature*, 478 (7369), 337–342.
- Folke, C. (2016). Resilience (republished). *Ecology and Society*, 21, 44.
- Food and Agriculture Organisation of United Nations. (2018). *Global Report on Food Crises: Acute hunger still affecting over 100 million people worldwide*. <http://www.fao.org/news/story/en/item/1187744/icode/>
- Ford, J. D., Berrang-Ford, L., Bunce, A., McKay, C., Irwin, M., & Pearce, T. (2015). The Status of Climate Change Adaptation in Africa and Asia. *Reg. Environ. Chang.* 15, 801–814.
- Frank-Briggs, A. I., & Alikor E. A. (2011). Knowledge and Attitudes of Parents Toward Children with Epilepsy. *Annals of African Medicine*, 10(3), 238–42.
- Friman, M., & Linner, B. O. (2008). Technology Obscuring Equity: Historical Responsibility in UNFCCC Negotiations. *Climate Policy*, 8(4), 339–354.
- Gabarron, M, Faz, A., & Acosta, J. (2018). Use Of Multivariable and Redundancy Analysis to Assess the Behavior of Metals and Arsenic in Urban Soil and Road Dust Affected by Metallic Mining as A Base for Risk Assessment. *Journal of Environmental Management*, 206, 192-201.
- Gangi, Y. A., & Abdulrazak, R. S. (2012). The Impact of Governance on FDI Flows to African Countries. *World Journal of Entrepreneurship, Management and Sustainable Development*, 8(2/3), 162 – 169.
- Gani, A. (2012) The Relationship Between Good Governance and Carbon Dioxide Emissions: Evidence from Developing Economies. *Journal of Economic Development*, 37(1), 77–93.
- Garcia, D. J., & You, F. (2017). Introducing Green GDP As an Objective to Account for Changes in Global Ecosystem Services Due to Biofuel Production. *Computer Aided Chemical Engineering*, 40, 505-510.
- Gareau, Brian J. (2013). *From Precaution to Profit: Contemporary Challenges to Environmental Protection in the Montreal Protocol*. Yale University Press, New Haven, CT and London.
- Gaur, A., Biggs, T. W., Gumma, M. K., Parthasaradhi, G., & Turrall, H. (2008). Water Scarcity Effects on Equitable Water Distribution and Land Use in A Major Irrigation Project—Case Study in India. *Irrigation and Drainage Engineering*, 134 (1), 26–35.

- Gazibara, T., Nikolovski, J., Latic, A., Pekmezovic, T., & Kusic-Tepavcevic, D. (2014). Parental Knowledge, Attitudes, And Behaviors Towards Children with Epilepsy in Belgrade (Serbia). *Epilepsy Behaviour*, 41, 210–6.
- Gereffi, G., & Lee, J. (2016). Economic and Social Upgrading in Global Value Chains and Industrial Clusters: Why Governance Matters. *Journal of Business Ethics*, 133 (1), 25–38.
- Ghose, A., & Das, S. (2013). Government Size and Economic Growth in Emerging Market Economies: A Panel Cointegration Approach. *Macroeconomics and Finance in Emerging Market Economies*, 6, 14-38.
- Globerman, S., & Shapiro, D. (2002). Global Foreign Direct Investment Flows: The Role of Governance Infrastructure. *World Development*, 30 (11), 1899–1919.
- Gobbo, J. A., Busso, C. M., Gobbo, S. C. O., & Carreao, H. (2018). Making The Links Among Environmental Protection, Process Safety, and Industry 4.0. *Processes and the protection of the environment*, 117, 372–382.
- Godfray, H. C. J., & Garnett, T. (2014). Food Security and Sustainable Intensification. *Philosophical Transactions of the Royal Society of London and Biological Sciences*, 369, 1–10.
- Goss, A., & Roberts, G. (2011). The Impact to Corporate Social Responsibility on the Cost of Bank Loans. *Journal of Banking and Finance*, 35, 1794-1810.
- Goulding, R., Horan, E. & Tozzi, L. (2014). The Importance of Sustainable Tourism in Reversing the Trend in The Economic Downturn and Population Decline of Rural Communities. *PASOS Revista de turismo y patrimonio cultural*, 12 (3), 549–563.
- Greene, W. (2008). *Econometric analysis (6th ed.)*. NJ: Prentice Hall Upper Saddle River.
- Greenfield, B. H., Greene, B., & Johanson, M. A. (2007) The Use of Qualitative Research Techniques in Orthopaedic and Sports Physical Therapy: Moving Toward Post Positivism. *Physical Therapy in Sport* 8(1), 44-54.
- Grimsley, S. (2016). *What is sustainable economic growth? definition & overview*. <http://study.com/academy/lesson/what-issustainable-economic-growth-definition-lesson-quiz.html>.
- Gu, W., & Zheng, X. (2020). An Empirical Study on The Impact of Sustainable Entrepreneurship: Based on The Environmental Kuznets Model. *Journal of Business Research*, 123, 613-624.
- Guan, J., Dervis, K., Bibi, A., & Zhang, W. (2020). Natural Resources Rents Nexus with Financial Development in The Presence of Globalization: Is The “Resource Curse” Exist or Myth? *Resour. Pol.* 66, 101641.

- Guillen-Royo, M., Guardiola, J., & Garcia-Quero, F. (2017). Sustainable Development in Times of Economic Crisis: A Needs-Based Illustration from Granada (Spain), *Journal of Cleaner Production*, 150, 267-276.
- Guisan, A., Edwards Jr., T.C., & Hastie, T. (2002). Generalized Linear and Generalized Additive Models in Studies of Species Distributions: Setting The Scene. *Ecological Modelling*, 157, 89-100.
- Guo, X., Xiao, B., & Song, L. (2019). What Cause the Decline of Energy Intensity in China's Cities? A Comprehensive Panel-Data Analysis. *Journal of Cleaner Production*, 233, 1298-1313.
- Halkos, G. E., & Papageorgiou, G. J. (2018) Pollution, Environmental Taxes and Public Debt: A Game Theory Setup. *Economic Analysis and Policy*, 58, 111-120.
- Hang, M., Geyer-Klingeborg, J., Rathgeber, A., & Stockl, S. (2018). Economic Development Matters: A Meta-Regression Analysis on The Relation Between Environmental Management and Financial Performance. *Journal Industrial Ecology*, 22 (4), 720-744.
- Hang, S. P. (2017). Technology Convergence, Open Innovation, and Dynamic Economy. *Journal of Open Innovation: Technology, Market, and Complexity* 3 (1).
- Harness, H., & Drossman, H. (2011). The Environmental Education Through Filmmaking Project. *Environmental Education Research*, 17, 829-849.
- Hasan, Q. M. (2019). The Power of Constitution for Enacting Energy Law and Managing Natural Resources: The Case of The Kurdistan Regional Government's Oil Contracts. *Energy policy*, 128, 744-751.
- Hassaballa, H. (2015) The Effect of Corruption on Carbon Dioxide Emissions in The MENA Region. *European Journal of Sustainable Development*, 4(2), 301-312.
- Hassan, K., & Salim, R. (2015). Population Ageing, Income Growth and CO2 Emission. *J.Econ. Stud.* 42 (1), 54-67.
- He, Q., Ghobadian, A., & Gallea, D. (2013). Knowledge Acquisition in Supply Chain Partnerships: The Role of Power. *International Journal of Production and Economics*, 141(2), 605-618.
- Heffron, R. J., & Talus, K. (2016) The Evolution of Energy Law and Energy Jurisprudence: Insights for Energy Analysts and Researchers, *Energy Research & Social Science*, 19, 1, 3 and 5.
- Heffron, R. J., Johnston, A., Mccauley, D., & Jenkins, K. (2013). Policy Delivery for Low Carbon Energy Infrastructure in the UK, April 5th 2013: Conference Overview. *Energy Policy*, 61, 1367-1369.
- Heffron, R. J., (2018). A treatise for Energy Law, *Journal of World Energy Law Bus.*, 11, 34, 40-48.

- Henderson, J. (2009). Food Tourism Reviewed. *British Food Journal*, 111 (4), 317–326.
- Hensher, M. (2020). Incorporating Environmental Impacts into The Economic Evaluation of Health Care Systems: Perspectives from Ecological Economics. *Resources, Conservation and Recycling*, 154.
- Herva, M., Franco, A., Carrasco, E.F., & Roca, E. (2011). Review of Corporate Environmental Indicators. *Journal of Cleaner Production*, 19, 1687-1699.
- Ho, P., Lin, C., & Tsai, W. (2016). Effect of Country Governance on Bank Privatization Performance. *International Review of Economics & Finance*, 43, 3-18.
- Hoepner, A., Oikonomou, I., Scholtens, B., & Schroder, M. (2016). The Effects of Corporate and Country Sustainability Characteristics on The Cost of Debt: An International Investigation. *Journal of Business Finance and Accounting*, 43, 158-190.
- Holzer, M., & Kloby, K. (2005). Public Performance Measurement an Assessment of The State-Of-The-Art and Models for Citizen Participation. *International Journal of Productivity and Performance Management*, 54(7), 517-32.
- Hovardas, T. (2016). Two Paradoxes with One Stone: A Critical Reading of Ecological Modernization, *Ecological Economics*. 130, 1-7.
- Hove, S., & Tursoy, T. (2019). An Investigation of The Environmental Kuznets Curve In Emerging Economies. *Journal of Cleaner Production*, 236, 117628.
- Hsu, A., Esty, D. C., de Sherbinin, A., & Levy, M. A. (2016). 2016 Environmental Performance Index: Global Metrics for the Environment. New Haven, CT: Yale Center for Environmental Law & Policy. <https://epi2016.yale.edu/>
- Huang, Y. F., Ye, X. B., Hu, B. R., & Chen, L. J. (2016). Fatigue Equivalent Crack Size Model for Pre-Corrosion Fatigue Life Prediction of Aluminium Alloy 7075-T6. *International Journal of Fatigue*, 88, 217–226.
- Huber, P. J. (1973). The Use of Choquet Capacities in Statistics. *Proceedings of the 39th Session of the ISI*, 45, 181-188.
- Husted, B. W., & Sousa-Filho, J.M. (2016). The Impact of Sustainability Governance, Country Stakeholder Orientation, And Country Risk on Environmental, Social, And Governance Performance. *Journal of Cleaner Production*, 1-10.
- Igoe, J., & Brockington, D. (2007). Neoliberal Conservation: A Brief Introduction. *Conservat. Soc.* 5 (4), 432–449.
- Integrated Food Security Phase Classification. (2012). *Technical Manual Version 2.0: Evidence and Standards for Better Food Security Decisions*. Global Partners, Rome.

- International Council on Mining and Metals. (2018). *Mining Contribution Index*. <https://www.icmm.com/en-gb/society-and-the-economy/role-of-mining-in-national-economies/mining-contribution-index>.
- International Energy Agency. (2018). *World Energy Outlook 2018*. Organisation for Economic Co-operation and Development, Paris.
- International Monetary Fund. (2016). *Fiscal Monitor: Debt–Use it Wisely*. Washington, DC. <https://www.imf.org/en/Publications/FM/Issues/2016/12/31/Debt-Use-it-Wisely>.
- Intharathirat, R., & Salam, P.A. (2015). Valorization of MSW-to-energy in Thailand: Status, Challenges and Prospects. *Waste Biomass Valorization*, 7, 31-57.
- Ioannou, I., & Serafeim, G. (2014). The Impact of Corporate Social Responsibility on Investment Recommendations: Analysts' Perceptions and Shifting Institutional Logics. *Strategic Management Journal*, 36(7), 1053-1081.
- Islam, M. N. (2015). Economic Growth, Repression, and State Expenditure in Nondemocratic Regimes. *European Journal of Political Economy*, 37, 68-85.
- Islam, M., Kanemoto, K., & Managi, S. (2016). Trade Openness and Sector Trade on Embodied Greenhouse Gases Emissions and Air Pollutants. *Journal of Industrial Ecology*, 20 (3), 494–505.
- Jackson, R. (2021). The Purpose of Policy Space for Developing and Developed Countries in a Changing Global Economic System. *Research in Globalization* 3, 100039.
- Jacobson, S. K., McDuff, M. D., & Monroe, M. C. (2015). *Conservation Education and Outreach Techniques*, 2nd ed. Oxford University Press, Oxford, UK.
- Jafari, S. A., & Ahmadpour, M. (2011). Comparison of Environmental Performance Index (EPI) in OIC Countries: Before and After Financial Crisis. *Advances in Environmental Biology*, 5(1): 201-208.
- Janssen, R., Graaf, R., Smit, M., & Voordijk, H. (2016). Why Local Governments Rarely Use PPPs in Their Road Development Projects. *International Journal of Managing Projects in Business*, 9 (1), 33–52.
- Jiang, C., Xiong, L., Wang, D., Liu, P., Guo, S., & Xu, C.Y. (2015). Separating the Impacts of Climate Change and Human Activities on Runoff Using the Budyko-Type Equations with Time-Varying Parameters. *Journal of Hydrology*, 522, 326–338.
- Johansson, G. (2002). Success Factors for Integration of Ecodesign in Product Development: A Review of State of The Art. *Environmental Management and Health*, 13, 98-107.

- Johnson, P. T. J., & Paull, S. H. (2011). The Ecology and Emergence of Diseases in Fresh Waters. *Freshwater Biology*, 56, 638–657.
- Jones, S. D., Atshabar, B., Schmid, B. V., Zuk, M., Amramina, A., & Stenseth, N. C. (2019). Living with Plague: Lessons from the Soviet Union's Antiplague System. *Proc. Natl. Acad. Sci.* 116, 9155–9163.
- Jong, M. D, Chen, Y., Joss, S., Lu, H., Zhao, M., Yang, Q., & Zhang, C., (2018). Explaining City Branding Practices in China's Three Mega-City Regions: The Role of Ecological Modernization. *Journal of Cleaner Production*, 179, 527-543.
- Jong, S., Wardenaar, T., & Horlings, E. (2016). Exploring the Promises of Transdisciplinary Research: A Quantitative Study of Two Climate Research Programmes. *Research Policy*, 45, 1397–1409.
- Kaika, D., & Zervas, E. (2013). The Environmental Kuznets Curve (EKC) Theory –Part A: Concept, Causes and The CO2emissions Case. *Energy Policy*, 62, 1392–1402.
- Kaiser, F.G., Roczen, N., & Bogner, F.X. (2008). Competence Formation in Environmental Education: Advancing Ecology-Specific Rather than General Abilities. *Umweltpsychologie*, 12, 56–70.
- Kasekende, E., Abuka, C., & Sarr, M. (2016). Extractive Industries and Corruption: Investigating the Effectiveness of EITI As a Scrutiny Mechanism. *Resources Policy*, 48, 117–128.
- Katrutsa, A., & Stijova, V. (2017). Comprehensive Study of Feature Selection Methods to Solve Multicollinearity Problem According to Evaluation Criteria. *Expert system with applications*, 76, 1-11.
- Kaufmann, D., & Kraay, A. (2007). Governance Indicators: Where Are We, Where Should We Be Going? Published in: World Bank Research Observer. Retrieved from <https://openknowledge.worldbank.org/handle/10986/7588>
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The Worldwide Governance Indicators: Methodology and Analytical Issues. Policy Research Working Paper, The World Bank, Washington, DC.
- Keating, J. W., & Valcarcel, V. J. (2017). What's so Great About the Great Moderation? *Journal of Macroeconomics*, 51, 115-142.
- Keese, M., & Schmitz, H. (2014). Broke, ill, And Obese: Is There an Effect of Household Debt on Health? *Review of Income and Wealth*, 60, 525-541.
- Khelif, W., Clarke, T., Karoui, L., Kan, K. A. S., & Ingley, C. (2019). Governing Complexity to Challenge Neoliberalism? Embedded Firms and The Prospects of Understanding New Realities. *European Management Journal*, 37(5), 601-610.

- Khokhar, T., & Tabary, M. E. (2016). *Five forest figures for the International Day of Forests*, *World Bank Blogs*. Retrieved from <https://blogs.worldbank.org/opendata/five-forest-figures-international-day-forests>.
- Knight, A. T., Cook, C. N., Redford, K. H., Biggs, D., Romero, C., Ortega-Argueta, A., Norman, C.D., Parsons, B., Reynolds, M., Eoyang, G., & Keene, M. (2019). Improving Conservation Practice with Principles and Tools from Systems Thinking and Evaluation. *Sustainability Science*, 14(6), 1531-1548.
- Kolstad, I., & Wiig, A. (2016) Does Democracy Reduce Corruption? *Democratization*, 23(7), 1198-1215.
- Kolstad, I., & Wiig, A. (2012). What Determines Chinese Outward FDI? *Journal of World Business*, 47(1), 26–34.
- Koshida, S., Arima, H., Fuji, T., Ito, Y., Murakami, T., & Takahashi, K. (2019). Impact of Advanced Maternal Age on Adverse Infant Outcomes: A Japanese Population-Based Study. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 242, 178–181.
- Kostka, G., & Mol, A. (2013). Implementation and Participation in China's Local Environmental Politics: Challenges and Innovations. *Journal of Environmental Policy and Planning*, 15. 3-16.
- Kraus, S., Rehman, S. U., & Garcia, F. J. S. (2020). Corporate Social Responsibility and Environmental Performance: The Mediating Role of Environmental Strategy and Green Innovation. *Technological Forecasting & Social Change*, 160, 120262.
- Krott, M., & Giessen, L. 2014. Learning From Practices: Implications of the “Practice-Based Approach” For Forest and Environmental Policy Research. *Forest Policy and Economics*, 49, 12-16.
- Kunanuntakij, K., Varabuntoonvit, V., Vorayos, N., Panjapornpon, C., & Mungcharoen, T. (2017). Thailand Green GDP Assessment Based on Environmentally Extended Input-Output Model. *Journal of Cleaner Production*, 167, 970-977.
- Kutner, M. H., Nachtsheim, C. J., Neter, J., & Li, W. (2005). *Applied Linear Statistical Models*, 5th ed. McGraw-Hill, 408–409.
- Lahouel, B. B., Bruna M., & Zaied, Y.B. (2020). The Curvilinear Relationship Between Environmental Performance and Financial Performance: An Investigation of Listed French Firms Using Panel Smooth Transition Model. *Finance Research Letters*, 35, 101455.
- Lai, K., Wong, C. W. Y., & Cheng, T. C. E. (2012). Ecological Modernisation of Chinese Export Manufacturing Via Green Logistics Management and Its Regional Implication. *Technological Forecasting & Social Change*, 79, 766–770.

- Le, T. N. P. (2008). *Determinants of Dropping Out of School: The Case of Vietnam (Doctoral dissertation)*. Kansas State University, Google scholar.
- Lee, C., Wang, C., & Ho, S., (2020). Country Governance, Corruption, and the Likelihood of Firms' Innovation. *Economic Modelling*, 92(C), 326-338.
- Lee, H. F., Fei, J., Chan, C. Y., Pei, Q., Jia, X., & Yue, R. P. (2017). Climate Change and Epidemics in Chinese History: A Multi-scalar Analysis. *Soc. Sci. Med.* 174, 53–63.
- Lee, K., & Min, B. (2015). Green R&D for Eco-innovation and its Impact on Carbon Emissions and Firm Performance. *Journal of Cleaner Production*, 108.
- Lee, T., Markowitz, E., Howe, P., Ko, C., & Leiserowitz, A. (2015). Predictors of Public Climate Change Awareness and Risk Perception Around the World. *Natural Climate Change*, 5, 1014-1020.
- Lemos, M. C., Arnott, J. C., Ardoin, N. M., Baja, K., Bednarek, A. T., Dewulf, A. R. P. J., Fieseler, C., Goodrich, K. A., Jagannathan, K., Klenk, N., & Turnhout, E. (2018). To Co-produce or Not to Co-produce. *Nature Sustainability*, 1, 722–724.
- Leonello, A., (2018). Government Guarantees and The Two-Way Feedback Between Banking and Sovereign Debt Crises. *Journal of Financial Economics*, 130(3), 592-619.
- Lestringanta, P., Delaruseb, J., & Heymann, H. (2019). 2010–2015: How Have Conventional Descriptive Analysis Methods Really Been Used? A Systematic Review of Publications. *Food Quality and Preference*, 71, 1-7.
- Li, B., & Wu, K.K. (2017). The Price of Environmental Sustainability: Empirical Evidence from Stock Market Performance in China. *Sustainability-Basel*, 9 (8).
- Li, D., Zhao, Y., Sun, Y., & Yin, D. (2017). Corporate Environmental Performance, Environmental Information Disclosure, And Financial Performance: Evidence from China. *Human and Ecological Risk Assessment*, 23, 323-339.
- Li, J., Shi, X., Wu, H., & Liu L., (2020). Trade-off Between Economic Development and Environmental Governance in China: An Analysis Based on The Effect of River Chief System. *China Economic Review*, 60, 101403.
- Li, K., Fang, L., & He, L. (2019). How Population and Energy Price Affect China's Environmental Pollution? *Energy Policy* 129, 386–396.
- Li, M. (2021). Uses and Abuses of Statistical Control Variables: Ruling Out or Creating Alternative Explanations? *Journal of Business Research*, 126, 472-488.
- Li, M. (2015). Moving Beyond the Linear Regression Model: Advantages of The Quantile Regression Model. *Journal of Management*, 41(1), 71–98.

- Li, Y., Chen, C., Wang, Y., & Liu, Y. (2014). Urban-rural Transformation and Farmland Conversion in China: The Application of The Environmental Kuznets Curve. *Journal of Rural Study*, 36, 311–317.
- Li, Z., & Yao, J. (2019). Testing for Heteroscedasticity in High-Dimensional Regressions. *Econometrics and Statistics*, 9, 122-139.
- Liddle, B. (2011). Consumption-driven Environmental Impact and Age Structure Change in OECD Countries: A Cointegration-STIRPAT Analysis. *Demogr. Res.* 24, 749–770.
- Liu, J., & Yang, W. (2012). Water Sustainability for China and Beyond. *Science*, 337, 649–650.
- Liu, T., Pan, S., Hou, H., & Xu, He. (2020). Analysing the Environmental and Economic Impact of Industrial Transfer Based on An Improved CGE Model: Taking the Beijing–Tianjin–Hebei Region as An Example. *Environmental Impact Assessment Review*, 83, 106386.
- Liu, Y., Li, H., Huang, S., An, H., Santagata, R., & Ulgiati, S. (2020). Environmental and Economic-Related Impact Assessment of Iron and Steel Production. A Call for Shared Responsibility in Global Trade. *Journal of Cleaner Production*, 269, 122239.
- Lixin, Z., & Zhenghao, Y. (2019). Research on the Synergy Between High-Tech Industry Innovation and Ecological Efficiency. Dalian University of Technology. *Journal of Social Science*, 40 (5), 36–43.
- Locatelli, B., Pavageau, C., Pramova, E., & Di Gregorio, M. (2015). Integrating Climate Change Mitigation and Adaptation in Agriculture and Forestry: Opportunities and Trade-offs. *Wiley Interdiscip. Rev. Clim. Chang.* 6, 585–598.
- Long, J. T., Neogi, S., Caldwell, C. M., & DeLange, M. P. (2018). Variation Inflation Factor-Based Regression Modelling of Anthropometric Measures and Temporal-Spatial Performance: Modeling Approach and Implications For Clinical Utility. *Clinical Biomechanics*, 51–57.
- Loucks, E. B., Gilman, S. E., Howe, C. J., Kawachi, I., Kubzansky, L. D., Rudd, R. E., Martin, L. T., Nandi, A., Wilhelm, A., & Buka, S. L. (2015). Education and Coronary Heart Disease Risk: Potential Mechanisms Such as Literacy, Perceived Constraints, And Depressive Symptoms. *Health Education & Behavior*, 42(3), 370–379.
- Lund-Thomsen, P., & Lindgreen, A. (2014). Corporate Social Responsibility in Global Value Chains: Where Are We Now and Where Are We Going? *Journal of Business Ethics*, 123 (1), 11–22.
- Luo, W. (2020). Inequality and Government Debt: Evidence from OECD Panel Data. *Economics Letters*, 186, 108869.

- MacLennan, C.A. (2014). *Sovereign Sugar: Industry and Environment in Hawaii*. University of Hawaii Press.
- Mallick, S., Mohanty, M. S., & Zampolli, F. (2017). Market Volatility, Monetary Policy and the Term Premium. *BIS Working Papers* 606. Bank for International Settlements.
- Marcinkowski, T., & Reid, A. (2019). Reviews of Research on The Attitude-Behavior Relationship and Their Implications for Future Environmental Education Research. *Environmental Education Research*, 25, 459–471.
- Mardones, C., & Del Rio, R. (2019). Correction of Chilean GDP for Natural Capital Depreciation and Environmental Degradation Caused by Copper Mining. *Resources Policy*, 60, 143-152.
- Martinez-Alier, J., Pascual, U., Vivien, F. D., & Zaccai, E. (2010). Sustainable De-Growth: Mapping the Context, Criticisms and Future Prospects of An Emergent Paradigm. *Ecological Economics*, 69 (9), 1741-1747.
- Martinico-Perez, M. F. G., Schand, H., Fishman, T., & Tanikawa, H. (2018). The Socioeconomic Metabolism of An Emerging Economy: Monitoring Progress of Decoupling of Economic Growth and Environmental Pressures In The Philippines. *Ecol. Econ.* 147, 155–166.
- Martins, R., Quintal, C., Cruz, L., & Barata, E. (2016). Water Affordability Issues in Developed Countries - The Relevance of Micro Approaches. *Utilities policy*, 43, 117-123.
- Masron, T.A., & Abdullah, H. (2010). Institutional Quality as a Determinant for FDI Inflows: Evidence from ASEAN. *World Journal of Management*, 2(3), 115-128.
- Matthews, K. A., & Gallo, L.C. (2011). Psychological perspectives on pathways linking socioeconomic status and physical health. *Annual Review of Psychology*, 62, 501-530.
- Matzdorf, B., & Meyerl, C. (2014). The Relevance of The Ecosystem Services Framework for Developed Countries' Environmental Policies: A comparative case study of the US and EU. *Land use policy*, 38, 509–521.
- Mazzarino, J. M., Turatti, L., & Petter, S. T. (2020). Environmental Governance: Media Approach on the United Nations Programme for the Environment. *Environmental Development*, 33, 100502.
- McCormick, J. (2018). *Environmental Politics and Policy*. Palgrave, London.
- McGowan, P. J. K., Stewart, G. B., Long, G., & Grainger, M. J. (2019). An Imperfect Vision of Indivisibility In The Sustainable Development Goals. *Nature Sustainability*, 2, 43–45.

- McManamay, R. A., Parish, E. S., DeRolph, C. R., Witt, A. M., Graf, W. L., & Burtner, A., (2020). Evidence-based Indicator Approach to Guide Preliminary Environmental Impact Assessments of Hydropower Development. *Journal of Environmental Management*, 265, 110489.
- McQuade, P., & Schmitz, M. (2017). The Great Moderation in International Capital Flows: A Global Phenomenon? *Journal of International Money and Finance*, 73, 188-212.
- Melina, G., Yang, S. S., & Zanna, L. (2016) Debt Sustainability, Public Investment, And Natural Resources in Developing Countries: The DIGNAR Model. *Economic Modelling*, 52, 630–649.
- Memon, P.A., Kirk, N. A., & Selsky, W. (2011). Limits to Ecological Modernisation as a Framework for Sustainable Fresh Water Governance. *Land Use Policy*, 28, 534-541.
- Meng, X. H., Zeng, S. X., Shi, J. J., Qi, G. Y., & Zhang, Z. B. (2014). The Relationship Between Corporate Environmental Performance and Environmental Disclosure: An Empirical Study in China. *Journal of Environmental Management*, 145, 357-367.
- Mesagan, P. E., Yusuf, A. I., & Ogbuji, A. I. (2019). Natural Resource Endowment and Output Growth: How Crucial Is Deficit Financing in Managing Resource-Rich African Economies? *Journal of Social and Economic Development*, 21 (2), 353–369.
- Miao, C. L., Fang, D. B., Sun, L. A., & Luo, Q. L. (2017). Natural Resources Utilization Efficiency Under the Influence of Green Technological Innovation. *Resources, Conservation & Recycling*, 126, 153-161.
- Miller, T. R., Minter, B. A., & Malan, L. C. (2011). The New Conservation Debate: The View from Practical Ethics. *Biol. Conserv.* 144, 948–957.
- Mirza, M.M.Q. (2011). Climate Change, Flooding in South Asia and Implications. *Reg. Environ. Change* 11 (1), 95–107.
- Mittermeier, R. A., Turner, W. R., Larsen, F. W., Brooks, T. M., & Gascon, C. (2011). *Global biodiversity conservation: The critical role of hotspots*. Doi: 10.1007/978-3-642-20992-5_1.
- Momber, A. W., Buchbach, S., Plagemenn, P., & Marquardt, T. (2017). Edge Coverage of Organic Coatings and Corrosion Protection Over Edges Under Simulated Ballast Water Tank Conditions. *Progress in Organic Coating*, 108, 90–92.
- Monroe, M. C., & Krasny, M. E. (2016). *Across the Spectrum: Resources for Environmental Education*, 3rd ed. North American Association for Environmental Education, Washington, DC.

- Morrissey, O. (2012). FDI In Sub-Saharan Africa: Few Linkages, Fewer Spill Over. *European Journal of Development Research*, 24 (1), 26–31.
- Muhammad, B., & Khan, S. (2019). Effect of Bilateral FDI, Energy Consumption, CO2 Emission and Capital on Economic Growth of Asia Countries. *Energy Reports*, 5, 1305–1315.
- Mukherjee, S., & Chakraborty, D. (2010). *Is there any Relationship between Environment, Human Development, Political and Governance Regimes? Evidences from a Cross-Country Analysis*, MPRA, Paper No. 1968.
- Mukherjee, S., & Chakraborty, D. (2013). Is Environmental Sustainability Influenced by Socioeconomic and Socio-Political Factors? Cross-Country Empirical Analysis. *Sustainable Development*, 21 (6), 353–371.
- Mula, I., & Tilbury, D. (2009). A United Nations Decade of Education for Sustainable Development (2005-14). What difference will it make? *Journal of Education for Sustainable Development*, 3 (1), 87-97.
- Mustunsir, M. A. (2015). Sustainability Vs Economic Growth: A Third World Perspective. *World Journal of Entrepreneurship, Management and Sustainable Development*, 11(4), 312- 324.
- Nasreen, S., Anwar, S., & Ozturk, I. (2017). Financial Stability, Energy Consumption and Environmental Quality: Evidence from South Asian Economies. *Renewable and Sustainable Energy Reviews*, 67, 1105–1122.
- Navas-Aleman, L. (2011). The Impact of Operating in Multiple Value Chains for Upgrading: The Case Of The Brazilian Furniture And Footwear Industries. *World Development*, 39 (8), 1386–1397.
- Ndikumana, L., & Sarrd, M. (2019) Capital flight, Foreign Direct Investment and Natural Resources in Africa. *Resources Policies*, 63, 101407.
- Ndikumana, L., Boyce, J. K., & Ndiaye, A. S. (2015). Capital Flight From Africa: Measurement and Drivers. In: Ajayi, S.I., Ndikumana, L. (Eds.), *Capital Flight from Africa: Causes, Effects and Policy Issues*. Oxford University Press, Oxford, 15–54.
- Ndjaboué, R., Brisson, C., & Vézina, M. (2012). Organisational Justice and Mental Health: A Systematic Review of Prospective Studies. *Occupational and Environmental Medicine*, 69, 694–700.
- Nerini, F. F., Sovacool, B., Hughes, N., Cozzi, L., Cosgrave, E., Howells, M., Tavoni, M., Tomei, J., Zerriffi, H., & Milligan, B. (2019). Connecting Climate Action with Other Sustainable Development Goals. *Nature Sustainability*, 2, 674–680.
- Neudorfer, N. S. (2018). Commodities and corruption – How the Middle Class and Democratic Institutions Lead to Less Corruption In Resource-Rich Countries. *Resources Policy*, 58, 175-191.

- Newbold, T., Sanchez-Ortiz, K., De Palma, A., Hill, S. L. L., & Purvis, A. (2019). The Biodiversity Intactness Index May Underestimate Losses. *Nature Ecology & Evolution*, 3, 864–865.
- Nguyen, H. A. T., Gheewala, S. H., Sophea, T., Areerob, T., Hashimoto, K., Pimonsree, S., & Prueksakorn, K. (2020). Comparative Carbon Footprint Assessment of Agricultural and Tourist Locations in Thailand. *Journal of Cleaner Production*, 269, 122407.
- Nielsen, P., & Wenzel, H. (2002). Integration of Environmental Aspects in Product Development: A Stepwise Procedure Based on Quantitative Life Cycle Assessment. *Journal of Cleaner Production*, 10, 247-257.
- Niemiec, R. M., Ardoin, N. M., Wharton, C. B., & Asner, G. P. (2016). Motivating Residents to Combat Invasive Species on Private Lands. *Ecol. Soc.*, 21, 30.
- Nino, F. (2016). *United Nations Sustainable Development Goals—Goal 8: Promote Inclusive And Sustainable Economic Growth, Employment and Decent Work For All*. United Nations.
- Nolan, B., Roser, M., & Thewissen, S. (2018). *GDP per capita versus median household income: what gives rise to the divergence over time and how does this vary across OECD countries?* Review of Income and Wealth.
- Norwegian Petroleum Directorate. (2011). *Facts 2011*. Retrieved from <http://www.npd.no/en/Publications/Facts/Facts-2011>.
- Nyasha, S., & Odhiambo N. M. (2014). Bank-based Financial Development and Economic Growth. *Journal of Financial Economic Policy*, 6(2) 112 – 132.
- O'Connor, R. E., Bord, R. J., Yarnal, B., & Wiefek, N. (2002), Who Wants to Reduce Greenhouse Gas Emissions? *Social Science Quarterly*, 83, 1-17.
- O'Donnell, T. (2019). Coastal Management and The Political-Legal Geographies of Climate Change Adaptation in Australia. *Ocean & Coastal Management*. 175, 127–135.
- Organisation for Economic Co-operation and Development (OECD). (2019), *OECD Economic Outlook, Volume 2019 Issue 1, No. 105*, OECD Publishing, Paris. <https://doi.org/10.1787/b2e897b0-en>.
- OECD, UNEP and World Bank (2018). *Financing climate futures: Rethinking infrastructure-policy highlights*. www.oecd.org/environment/cc/climate-futures.
- Oge, K. (2016). Which Transparency Matters? Compliance With Anti-Corruption Efforts in Extractive Industries. *Resources Policy*, 49, 41–50.

- Oikawa, K., & Managi, S. (2015). R&D in Clean Technology: A Project Choice Model with Learning. *Journal of Economic Behavior and Organization.*, 117, 175–195.
- Okereke, C., & Coventry, P. (2016). Climate Justice and The International Regime: Before, During, And After Paris: Climate Justice and The International Regime. *Wiley Interdisciplinary Reviews: Climate Change*, 7.
- Okuyama, Y., & Santos, J. R. (2014). Disaster Impact and Input-Output Analysis. *Economic Systems Research*, 26, 1-12.
- Oluwatobi, S., Efobi, U., Olurinola, I., & Alege, P. (2015). Innovation in Africa: Why Institutions Matter. *South African Journal of Economics*, 83 (3), 390–410.
- Omri, A., & Mabrouk, N. B., (2020). Good Governance for Sustainable Development Goals: Getting Ahead of The Pack or Falling Behind? *Environmental Impact Assessment Review*, 83, 106388.
- Ortas, E., Etxeberria, I. A., Jaussaud, J., & Garayar, A. (2015). The Impact of Institutional and Social Context on Corporate Environmental, Social and Governance Performance of Companies Committed to Voluntary Corporate Social Responsibility Initiatives. *Journal of Cleaner Production*, 108.
- Page, S.E. (2005). Are We Collapsing? A Review of Jared Diamond's Collapse: How Societies Choose to Fail or Succeed. *Journal of Economic Literature*, 43, 1049–1062.
- Pahl-Wostl, C. (2017). An Evolutionary Perspective on Water Governance: From Understanding to Transformation. *Water Resources Management*, 31, 2917–2932.
- Panayides, P. M., Parola, F., & Lam, J. S. L. (2015). The Effect of Institutional Factors on Public-Private Partnership Success in Ports. *Transportation Research Part A*, 71, 110–127.
- Pao, H.-T., & Tsai, C. M. (2011). Multivariate Granger Causality Between CO2 Emissions, Energy Consumption, FDI (Foreign Direct Investment) And GDP (Gross Domestic Product): Evidence from A Panel of BRIC (Brazil, Russian Federation, India, and China) countries. *Energy*, 36, 685–693.
- Paris Climate Change Agreement. (2015). *Article 2*. https://unfccc.int/sites/default/files/english_paris_agreement.pdf.
- Park, M., & Lee, H. (2014). Forest Policy And Law for Sustainability Within the Korean Peninsula. *Sustainability*, 6 (8), 5162–5168.
- Patten, D. M. (2015), An Insider's Reflection on Quantitative Research in The Social and Environmental Disclosure Domain. *Critical Perspectives on Accounting*, 32, 45–50.

- Pauly, L., & Reich, S. (1997). National Structures and Multinational Corporate Behaviour: Enduring Differences in the Age of Globalization. *International Organization*, 51(10), 1–30.
- Perez, D., & Ottonello, P. (2016). The Currency Composition of Sovereign Debt. *2016 Meeting Papers 596, Society for Economic Dynamics*.
- Pham-Truffert, M., Metz, F., Fischer, M., Rueff, H., & Messerli, P. (2020). Interactions Among Sustainable Development Goals: Knowledge for Identifying Multipliers and Virtuous Cycles. *Sustain. Dev.* 28, 1236-1250.
- Phillips, M. A., & Ritala, P. (2019). A Complex Adaptive Systems Agenda for Ecosystem Research Methodology. *Technological Forecasting and Social Change*, 148, 119739.
- Picheta, R. (2020) CNN Travel, People in India can see the Himalayas for the First Time in 'Decades,' as the Lockdown Eases Air Pollution. *CNN Travel*. <https://edition.cnn.com/travel/article/himalayas-visible-lockdown-india-scli-intl/index.html>
- Pimentel, D., Berger, B., Filiberto, D., Newton, M., Wolfe, B., Karabinakis, E., Clark, S., Poon, E., Abbett, E., & Nandagopal, S. (2013). Water Resources: Agricultural and Environmental Issues. *Bioscience*, 54, 909–918.
- Potscher, B. M., & Preinerstorfer, D. (2017). Controlling the Size of Autocorrelation Robust Tests. *Journal of Econometrics*, 207, 406-431.
- Prakash, A., & Potoski, M. (2007). Investing Up: FDI and the Cross-Country Diffusion of ISO 14001 Management Systems. *International Studies Quarterly*, 51(3), 723–744.
- Pressey, R.L., Weeks, R., & Gurney, G.G. (2017). From Displacement Activities to Evidence Informed Decisions in Conservation. *Biological Conservation*, 212, 337–348.
- Psychoyios, D., Missioub, O., & Dergiades, T. (2019). Energy Based Estimation of The Shadow Economy: The Role of Governance Quality. *The Quarterly Review of Economics and Finance*.
- Pulok, M. (2012). *The Impact of Corruption on Economic Development of Bangladesh: Evidence on the Basis of an Extended Solow Model*. MPRA Paper 28755, University Library of Munich, Germany.
- Purnomo, H., Okarda, B., Dermawan, A., Ilham, Q. P., Pacheco, P., Nurfatriani, F., & Suhendang, E. (2020). Reconciling Oil Palm Economic Development and Environmental Conservation in Indonesia: A Value Chain Dynamic Approach. *Forest Policy and Economics*, 111, 102089.
- Qi, T., Zhang, X., & Karplus, V. J. (2014). The Energy and CO2 Emissions Impact of Renewable Energy Development in China. *Energy Policy*, 68:60–69.

- Qi, S., & Ongena, S. (2019). Will Money Talk? Firm Bribery and Credit Access. *Financ. Manag.* 48 (1), 117–157.
- Queiros, A. M., Strong, J. E., Mazik, K., Carstensen, J., Bruun, J., Somerfield, P. J., Bruhn, A., Ciavatta, S., Flo., E., Bizsel, N., Ozaydinli, M., Chuseve, R., Muxika, I., Nygard, H., Papadopoulou, N., Pantazi, M., & Krause-Jensen. D. (2016). An Objective Framework to Test the Quality of Candidate Indicators Of Good Environmental Status. *Frontiers in Marine Science*, 3, 73.
- Rafiq, M. S. (2011). Sources of Economic Fluctuations in Oil-Exporting Economies: Implications for Choice Of Exchange Rate Regimes. *International Journal of Economics and Finance*, 16 (1), 70–91.
- Rahman, M. M. (2017), Do population density, economic growth, energy use and exports adversely affect environmental quality in Asian populous countries? *Renewable and Sustainable Energy Reviews*, 77, 506–514.
- Ramirez-Monsalve, P., Raakjar, J., Nielsen, K. N., Laksa, U., Danielsen, R., Degnbol, D., Ballesteros, M., & Degnbol, P. (2016). Institutional Challenges for Policy-Making and Fisheries Advice to Move to A Full EAFM Approach Within the Current Governance Structures for Marine Policies. *Marine Policy*, 69, 1- 12.
- Reimer, A. (2015). Ecological Modernization in U.S. Agri-Environmental Programs: Trends in the 2014 Farm Bill. *Land Use Policy*, 47, 209-217.
- Ren, S. G., Li, X. L., Yuan, B. L., Li, D. Y., & Chen, X. H. (2018). The Effects of Three Types of Environmental Regulation on Eco-Efficiency: A Cross-Region Analysis in China. *Journal of Cleaner Production*, 173, 245-255.
- Richardson, B. J. (2016). The Emerging Age of Ecological Restoration Law. Review of European 25. *Comparative and International Environmental Law*, 277–290.
- Rinaldi, C. (2017). Food and Gastronomy for Sustainable Place Development: A Multidisciplinary Analysis of Different Theoretical Approaches. *Sustainability*, 9 (10).
- Rio, R. D., & Mardones, C. (2019). Correction of Chilean GDP for Natural Capital Depreciation and Environmental Degradation Caused by Copper Mining. *Resources Policy*, 60, 143-152.
- Ripple, W. J., Wolf, C., Newsome, T.M., Galetti, M., Alamgir, M., Crist, E., Mahmoud, M. I., & Laurance, W.F. (2017). World Scientists' Warning to Humanity: A Second Notice. *Bioscience* 67, 1026-1028.
- Roberto, D., & Majid, M. (2020). Natural Resources, Rent Seeking and Economic Development. An Analysis of The Resource Curse Hypothesis for Iran. *Macroeconomics and Finance in Emerging Market Economies* 15(1), 47-65.

- Robinson, J.A., Torvik, R., & Verdier, T. (2017). The Political Economy of Public Income Volatility: With an Application to The Resource Curse. *Journal of Public Economics*, 145, 243–252.
- Robinson, J.G. (2011). Ethical Pluralism, Pragmatism, and Sustainability in Conservation Practice. *Biol. Conserv.* 144, 958–965.
- Rockström, J., Steffen, W., Noone, K., Chapin, F. S. I. I. I., Nykvist, B., de Wit, C. A., Hughes, T., van der Leeuw, S., Rodhe, H., Sorlin, S., Snyder, P. K., Costanza, R., Svedin, U., Falkenmark, M., Karlberg, L., Correll, R. W., Fabry, V. J., Hansen, J., Walker, B., Liverman, D., Richardson, K., Crutzen, P., & Foley, J. (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society*, 14, 32.
- Roczen, N., Kaiser, F. G., Bogner, F. X., & Wilson, M. (2014). A Competence Model for Environmental Education. *Environment and Behaviour*, 46, 972–992.
- Rodriguez-Pose, A., & Zhang, M. (2020). The Cost of Weak Institutions for Innovation in China. *Technological Forecasting and Social Change*, 153, 119937.
- Romero-Ávila, D., & Strauch, R. (2008). Public Finances and Long-Term Growth in Europe: Evidence from A Panel Data Analysis. *European Journal of Political Economy*, 24, 172–191.
- Roy, R., & Heuty, A. (2009). Fiscal Space: *Policy Options for Financing Human Development*. Earthscan, London.
- Russia Briefing (2016). *Chinese and South Koreans to export water from Lake Baikal*. <https://www.russia-briefing.com/news/chinese-south-koreans-export-water-lake-baikal.html/>
- Sachs, J. D., Schmidt-Traub, G., Mazzucato, M., Messner, D., Nakicenovic, N., & Rockstroem, J. (2019). Six Transformations to Achieve the Sustainable Development Goals. *Nature Sustainability*, 2, 805–814.
- Sadorsky, P. (2009). Renewable Energy Consumption, CO2 Emissions and Oil Prices in The G7 Countries. *Energy Economic*, 31(3), 456–462.
- Sadorsky, P. (2014) The Effect of Urbanization on CO2 Emissions in Emerging Economies. *Energy Econ.* 41, 147–153.
- Sala, S., Reale, F., Cristobal-Garcia, J., Marelli, L., & Pant, R. (2016). Life Cycle Assessment for the Impact Assessment of Policies. *Publications Office of the European Union, Luxembourg*, ISBN 978-92-79-64813-7.
- Salgo, M., & Gillespie, J. (2018). Cracking the Code: A Legal Geography and Political Ecological Perspective on Vegetation Clearing Regulations. *Australian Geographic*, 49, 483–496.

- Samimi, J.A., Monfared, M., Moghaddasi, R., & Azizi, K. (2011). Political stability and FDI in OIC Countries. *Journal of Social and Development Sciences*, 1 (1).
- Sanfilippo, M. (2010). Chinese FDI to Africa: What is the Nexus with Foreign Economic Cooperation? *African Development Review*, 22, 599–614.
- Santangelo, G., & Andersson, U. (2013). *Anti-competitive Regulations and Subsidiary Relational Embeddedness Strategies*. In: *AIB 2013 Annual Meeting*. Academy of International Business.
- Sarhan, A. A., Ntim, C. G., & Al-Najjar, B. (2019). Antecedents of Audit Quality in MENA Countries: The Effect of Firm- and Country-Level Governance Quality. *Journal of International Accounting, Auditing and Taxation*, 35, 85-107.
- Sarkodie, S. A., & Strezoy, V. (2019). Effect of Foreign Direct Investments, Economic Development and Energy Consumption on Greenhouse Gas Emissions in Developing Countries. *Science of the Total Environment* 646, 862–871.
- Satti, S. L., Farooq, A., Loganathan, N., & Shahbaz, M. (2014). Empirical Evidence on the Resource Curse Hypothesis in Oil Abundant Economy. *Economic Models*, 42, 421–429.
- Scherer, L., Behrens, P., de Koning, A., Heijungs, R., Sprecher, B., & Tukker, A. (2018). Trade-offs Between Social and Environmental Sustainable Development Goals. *Environ. Sci. Pol.* 90, 65-72.
- Schoneveld, G. C. (2017). Host Country Governance and the African Land Rush: 7 Reasons Why Large-Scale Farmland Investments Fail to Contribute to Sustainable Development. *Geoforum*, 83, 119-132.
- Schreifels, J.J., Fu, Y., & Wilson, E.J. (2012). Sulfur Dioxide Control in China: Policy Evolution During the 10th and 11th Five-Year Plans and Lessons for the Future. *Energy Policy*, 48, 779-789.
- Schumm, M. F., & Bogner, F. X. (2016). How Environmental Attitudes Interact with Cognitive Learning in A Science Lesson Module. *Education Research International*, 7.
- Sena, V., Duygun, M., Lubrano, G., Marra, M., & Shaban, M. (2018). Board Independence, Corruption and Innovation: Some Evidence on UK Subsidiaries. *Journal of Corporate Finance*, 50, 22–43.
- Sengupta, S. (2019). *Life in a City Without Water: Anxious, Exhausting and Sweaty*. The New York Times.
- Sephton, P., & Mann, J. (2018). Gold And Crude Oil Prices After the Great Moderation. *Energy Economics*, 71, 273-281.

- Shahbaz, M., Loganathan, N., Muzaffar, A. T., Ahmed, K., & Jabran, M. A. (2016). How Urbanization Affects CO₂ Emissions in Malaysia? The Application of STIRPAT Model. *Renew. Sust. Energ. Rev.* 57, 83–93.
- Shephard, K., Harraway, J., Jowett, T., Lovelock, B., Skeaff, S., Slooten, L., Strack, M. & Furnari, M. (2015). Longitudinal Analysis of The Environmental Attitudes of University Students. *Environmental Education Research*, 21 (6), 805-820.
- Shepherd, J. P., & Sumner, S. A. (2017). Policing and Public Health-strategies for Collaboration. *J. Am. Med. Assoc.* 317, 1525-1526.
- Shine, K. P. (2009). The Global Warming Potential - The Need for An Interdisciplinary Retrial. *Climatic Change*, 96, 467–472.
- Shirzadi, N. (2018). Optimal Planning of Hybrid Renewable Energy Infrastructure for Urban Sustainability: Green Vancouver. *Renewable and Sustainable Energy Reviews*, 95. 254-264.
- Shuman, E. K. (2010). Global Climate Change and Infectious Diseases. *New England Journal of Medicine*, 362 (12), 1061–1063.
- Smidt, S. J., Haacker, E. M. K., Kendall, A. D., Deines, J. M., Pei, L., Cotterman, K. A., Li, H., Liu, X., Basso, B., & Hyndman, D. W. (2016). Complex Water Management in Modern Agriculture: Trends in The Water-Energy-Food Nexus Over the High Plain’s Aquifer. *Science of the Total Environment*, 566–567, 988–1001.
- Smith, K. R., Desai, M. A., Rogers, J. V., & Houghton, R. A. (2013). Joint CO₂ and CH₄ accountability for global warming. *Proceedings of the National Academy of Sciences of the United States of America*, 110 (31), E2865– E2874.
- Smith, K. R., Woodward, A., Campbell-Lendrum, D., Chadee, D. D., Honda, Y., Liu, Q., Olwoch, J. M., Revich, B., & Sauerborn, R. (2014). *Human Health: Impacts, Adaptation, and Co-benefits. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D. J. Dokken, K. J. Mach, M. D. Mastrandrea, T. E. Bilir, M. Chatterjee, K.L. Ebi, Y. O. Estrada, R. C. Genova, B. Girma, E.S. Kissel, A. N. Levy, S. MacCracken, P. R. Mastrandrea, and L. L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA,709-754.
- Snyder, H. (2019). Literature Review as A Research Methodology: An Overview and Guidelines. *Journal of Business Research*, 104, 333-339.
- Sobol, A. (2008). Governance Barriers to Local Sustainable Development in Poland. *Management of Environmental Quality: An International Journal*, 19(2), 194-203.

- Socolow, R. H., & Lam, S. H. (2007). Good Enough Tools for Global Warming Policy Making. *Philosophical Transactions of the Royal Society of London. Series A: Mathematical and Physical Sciences*, 365(1853), 897–934.
- Song, C., Chang, C., & Gong, Q., (2020). Economic Growth, Corruption, and Financial Development: Global evidence. *Economic Modelling*, 94, 822-830, ISSN 0264-9993, Doi: <https://doi.org/10.1016/j.econmod.2020.02.022>.
- South China Morning Post. (2019). *Best of frenemies: Official Relations Are Good, But Russians Grow Wary of Chinese Investments*. <https://www.scmp.com/news/china/diplomacy/article/3002975/best-frenemies-official-relations-are-good-russians-grow-wary>.
- Sovacool, B. K., & Andrews, N. (2015). Does Transparency Matter? Evaluating The Governance Impacts of the Extractive Industries Transparency Initiative (EITI) in Azerbaijan and Liberia. *Resources Policy*, 45, 183–192.
- Spector, P. E., & Brannick, M. T. (2011). Methodological Urban Legends: The misuse of Statistical Control Variables. *Organizational Research Methods*, 14(2), 287–305.
- Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O., & Ludwig, C. (2015). The Trajectory of the Anthropocene: The Great Acceleration. *Anthropology Review*, 2, 81–98.
- Stough-Hunter, A., Lekies, K. S., & Donnermeyer, J.F. (2014). When Environmental Action Does Not Activate Concern: The Case of Impaired Water Quality in Two Rural Watersheds. *Environmental Management*, 54,1306–1319.
- Sukmadilaga, C., Pratama A., & Mulyani S. (2015), Good Governance Implementation in Public Sector: Exploratory Analysis of Government Financial Statements Disclosures Across ASEAN Countries. *Social and Behavioral Sciences*, 211, 513 – 518.
- Sultan, B., & Gaetani, M. (2016). Agriculture in West Africa in the Twenty-first Century: Climate Change and Impacts Scenarios, and Potential for Adaptation. *Front. Plant Sci.* 7, 1262.
- Sun, B., Zhang, L., Yang, L., Zhang, F., Norse, D., & Zhu, Z. (2012). Agricultural Non-point Source Pollution in China: Causes and Mitigation Measures. *Ambio* 41, 370–379.
- Surroca, J., Tribo, J., & Waddock, S. (2010). Corporate Responsibility and Financial Performance: The Role of Intangible Resources. *Strategic Management Journal*, 31. 463-490.
- Sweet, E., Nandi, A., Adam, E. K., & McDade, T. W. (2013). The high Price of Debt: Household Financial Debt and Its Impact on Mental and Physical Health. *Social Science & Medicine*, 91, 94–100.

- Tarpo, M., Friis, T., Georgakis, C., & Brincker, R. (2020). The Statistical Errors in The Estimated Correlation Function Matrix for Operational Modal Analysis. *Journal of Sound and Vibration*, 466, 115013.
- Taylor, J. B. (2016). Slow Economic Growth as A Phase in A Policy Performance Cycle. *Journal of Policy Modelling*, 38, 649-655.
- Tetyana, B., Kussul, E., & Wunsch, D. C. (2019). Intelligent Automation in Renewable Energy. *Computational Intelligence Methods and Applications*. Springer International Publishing.
- The Diplomat. (2020). *China's 'Development Approach' to the Mekong Water Disputes*. <https://thediplomat.com/2020/03/chinas-development-approach-to-the-mekong-water-disputes/>
- The Real Russia Today. (2019). *Public Backlash Prompts Officials in Irkutsk to Audit Construction of Bottling Plant That Would Have Exported Lake Baikal Water to China*. <https://meduza.io/en/feature/2019/03/13/public-backlash-prompts-officials-in-irkutsk-to-audit-construction-of-bottling-plant-that-would-have-exported-lake-baikal-water-to-china>.
- The Times of Indian World. (2016). *Chinese Cities Shut Down Factories Ahead of G20 Summit*. http://timesofindia.indiatimes.com/articleshow/53913311.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Thiel, M. (2017). Accelerating Environmental Responsibility Through Societal Governance. *Journal of Global Responsibility*, 8 (1), 96-110.
- Thomas, R. E. W., Teel, T., Bruyere, B., & Laurence, S. (2018). Metrics and Outcomes of Conservation Education: A Quarter Century of Lessons Learned. *Environ. Educ. Res.* 25, 172-192.
- Thomson, O. P., Petty, N. J., Ramage, C. M., & Moore, A. P. (2011). Qualitative Research: Exploring the Multiple Perspectives of Osteopathy. *International Journal of Osteopathic Medicine*, 14(3), 116-24.
- Thomson, S., Foubisterand, T., & Mossialos, E. (2010). Can User Charges Make Health Care More Efficient? *British Medical Journal*, 341.
- Tian, Y. Y., Jiang, G. H., Zhou, D. Y., Ding, K. S., Su, S., Zhou, T., & Chen, D. B. (2019). Regional Industrial Transfer in The Jingjinji Urban Agglomeration, China: An Analysis Based on A New "Transferring Area-Undertaking Area-Dynamic Process" Model. *Journal of Cleaner Production*, 235, 751-766.
- Tiba, S. (2019). Modeling the Nexus Between Resources Abundance and Economic Growth: An Overview from the PSTR Model. *Resour. Pol.* 64, 101503.

- Tol, R. S. J., Berntsen, T. K., O'Neill, B. C., Fuglestvedt, J. S., & Shine, K. P. (2012). A Unifying Framework for Metrics for Aggregating the Climate Effect of Different Emissions. *Environmental Research Letters*, 7(4), 044006.
- Toomey, A. H., Knight, A. T., & Barlow, J. (2017). Navigating the Space Between Research and Implementation in Conservation. *Conservation Letter*, 10, 619–625.
- Topcu, E., Altinoz, B., & Aslan, A. (2020). Global Evidence from the Link Between Economic Growth, Natural Resources, Energy Consumption, And Gross Capital Formation. *Resources Policy*, 101622.
- Truong, M. A., & Clayton, S. (2020). Technologically Transformed Experiences of Nature: A Challenge for Environmental Conservation? *Biological Conservation*, 08532.
- Tsani, S. (2013). Natural Resources, Governance and Institutional Quality: The Role of Resource Funds. *Resource Policy*, 181–195.
- Tung, T. M., & Yaseen, Z. M. (2020). A Survey on River Water Quality Modelling Using Artificial Intelligence Models: 2000–2020. *J. Hydrol.* 585, 124670.
- Turatti, L., & Mazzarino, J. M. (2017). Water Governance: Assumptions to Assign a New Meaning to it. *Ciencias Naturales*. 1–7.
- Ulman, S., & Bujanca, G. (2014). The Corruption Influence on the Macroeconomic Environment. Empirical Analysis on Countries Development Stages. *Procedia Economics and Finance*. 16. 427–437.
- UN-Habitat. (2016). *Urbanization and Development: Emerging Futures. World Cities Report 2016*. United Nations Human Settlements Programme (UN-Habitat), Nairobi, Kenya.
- United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015*. https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/70/1
- United Nations. (2015). *Sustainable Development Goals*. <https://sustainabledevelopment.un.org/?menu=1300>.
- United Nations. (2017). *World Population Prospects: The 2017 Revision. Key Findings and Advance Tables*. Department of Economic and Social Affairs, Population Division, New York, United States.
- United Nations Department of Economic and Social Affairs. (2015). *Green Growth, United Nations Department of Economic and Social Affairs, New York, NY*. <https://sustainabledevelopment.un.org/index.php?menu=41447>.

- United Nations Development Programme. (2014). *Human Development Report 2014: Sustaining Human Progress-Reducing Vulnerabilities and Building Resilience*. UNDP, New York. Retrieved from <http://hdr.undp.org/en/content/human-development-report-2014>.
- United Nations Framework Convention on Climate Change (UNFCCC). (2015). *COP 21*. <https://unfccc.int/process-and-meetings/conferences/past-conferences/paris-climate-change-conference-november-2015/cop-21>
- United Nations General Assembly. (2021). *Transforming Our World: The 2030 Agenda for Sustainable Development*. <https://www.refworld.org/docid/57b6e3e44.html>
- United Nations. (2017). Resolution N. 2997 (XXVII), 1972. 2997 (XXVII). *Institutional and financial arrangements for international environmental cooperation*. <http://www.un-documents.net/a27r2997.htm>.
- US Energy Information Administration. (2009). *Residential Energy Consumption Survey (RECS) Technical Documentation Summary, 2013*. <https://www.eia.gov/consumption/residential/methodology/2009/pdf/techdoc-summary010413.pdf>.
- Vaghefi, N., Shamsudin, M. N., Radam, A., & Rahim, K. A. (2013). Modelling the Impact of Climate Change on Rice Production: An Overview. *Journal of Applied Sciences*, 13. 5649-5660.
- Vaghefi, N., Siwar, C., & Aziz, S. (2015). Green GDP and Sustainable Development in Malaysia. *Current World Environment*, 1-8.
- Van den Bergh, J. C. J. M., & Botzen, W. J. W. (2018). Global Impact of a Climate Treaty if the Human Development Index Replaces GDP as a welfare Proxy. *Climate Policy*, 76-85.
- Van der Ploeg, F. (2011). Natural Resources: Curse or Blessing? *Journal of Economic Literature*, 366-420.
- Van Seventer, J. M., & Hochberg, N. S. (2017). Principles of Infectious Diseases: Transmission, Diagnosis, Prevention, and Control. *Int. Encycl. Public Health* 22-39.
- Vardar, B., & Zaccour, G. (2018). The Strategic Impact of Adaptation in a Transboundary Pollution Dynamic Game. *Environ. Model. Assess.* 23, 653-669.
- Vaughter, P., Wright, T., McKenzie, M., & Lidstone, L. (2013). Greening the Ivory Tower: A Review of Educational Research on Sustainability in Post-Secondary Education. *Sustainability*, 2252-2271.
- Villarini, G., Smith, J. A., Serinaldi, F., Bales, J., Bates, P. D., & Krajewski, W. F. (2009). Flood Frequency Analysis for Nonstationary Annual Peak Records in An Urban Drainage Basin. *Advances of Water Resources*, 1255-1266.

- Villarini, G., Smith, J. A., Serinaldi, F., Ntelekos, A. A., & Schwarz, U. (2012). Analyses of Extreme Flooding in Austria Over the Period 1951 to 2006. *International Journal of Climatology*, 1178–1192.
- Waddock, S., & Graves, S. (1997). The Corporate Social Performance—Financial Performance Link. *Strategic Management Journal*, 303-319.
- Wade, R. (2019). *Catch-up and Constraints in the Twentieth and Twenty-First Centuries. In How Nations Learn: Technological Learning, Industrial Policy, and Catch-Up*. Edited by Arkebe Oqubay and Kenichi Ohno. Oxford, UK: Oxford University Press.
- Wallstam, M., Ioannides, D., & Pettersson, R. (2018). Evaluating the Social Impacts of Events: In Search of Unified Indicators for Effective Policymaking. *Journal of Policy Research in Tourism Leisure and Events*.
- Wals, A. E. J. (2013). Sustainability in Higher Education in The Context of The UN Decade of Education for Sustainable Development (DESD): A Review of Learning and Institutionalization Processes. *Journal of Cleaner Production*, 1-8.
- Wang, J. P., Huang, D., Chang, S., & Brant, L. (2013) On-Site Earth Quake Early Warning with Multiple Regression Analysis: Featuring Two User-Friendly Applications for Excel. *Computers & Geosciences*, 1–7.
- Wang, Y., Huang, Q., & Liu, C.M., (2002). Research On Load Capacity Analysis of Water Resources Based on Maximum Supportable Population. *J. Soil Water Conserv.* 16 (6), 54–57.
- Wang, J., & Dong, K. (2018). What Drives Environmental Degradation? Evidence from 14 Sub-Saharan African Countries. *Sci. Total Environ.* 656, 165–173.
- Wang, K. L., Yin, H. C., & Chen, Y. W. (2019). The Effect of Environmental Regulation on Air Quality: A Study of New Ambient Air Quality Standards in China. *Journal of Cleaner Production*, 268-279.
- Wang, P., Dai, H., Ren, S., Zhao, D., & Masui, T. (2015). Achieving Copenhagen Target Through Carbon Emission Trading: Economic Impacts Assessment in Guangdong Province of China. *Energy*, 212-227.
- Wang, W. X., Yu, B., Yao, X. L., Niu, T., & Zhang, C. T. (2018). Can Technological Learning Significantly Reduce Industrial Air Pollutants Intensity in China? Based on a Multi-Factor Environmental Learning Curve. *Journal of Cleaner Production*, 137-147.
- Wang, X., & Luo, Y. (2020). Has Technological Innovation Capability Addressed Environmental Pollution from the Dual Perspective Of FDI Quantity And Quality? Evidence from China. *Journal of Cleaner Production*, 258, 0959-6526.

- Ward, H., & Dorussen, H. (2015). Public Information and Performance: The Role of Spatial Dependence in the Worldwide Governance Indicators among African Countries. *World Development*, 253-263.
- Watson, J., Byrne, R., Ockwell, D., & Stua, M. (2015). Lessons from China: Building Technological Capabilities for Low Carbon Technology Transfer and Development. *Climate Change*, 387-399.
- Wendling, Z. A., Emerson, J. W., Esty, D. C., Levy, M. A., & De Sherbinin, A. (2018). *Environmental Performance Index*. New Haven, CT: Yale Center for Environmental Law & Policy. <https://sedac.ciesin.columbia.edu/data/set/epi-environmental-performance-index-2018>.
- West, S.E. (2015). Understanding Participant and Practitioner Outcomes of Environmental Education. *Environmental Education Research*, 45-60.
- Whiteside, J. H., Olsen, P. E., Eglinton, T., Brookfield, M., E., & Sambrotto, R. N. (2010). Compound-specific Carbon Isotopes from Earth's Largest Flood Basalt Eruptions Directly Linked to the End-Triassic Mass Extinction. *Proceedings of the National Academy of Sciences of the United States of America*. 107(15), 6721-6725.
- Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key Competencies in Sustainability: A Reference Framework for Academic Program Development. *Sustainability Science*, 203-218.
- Wilhite, H. L., & McNeill, D. (2015). *Making Sense of Sustainable Development in a Changing World*. In: Hansen, Arve, Wethal, Ulrikke Bryn (Eds.), *Emerging Economies and Challenges to Sustainability: Theories, Strategies, Local Realities*. Routledge, London, 34-51.
- Wilkinson, R. G., & Pickett, K. E. (2010). *The Spirit Level: Why Equality Is Better for Everyone*. Penguin, London.
- Wooldridge, J. M. (2009). *Introductory Econometrics: A Modern Approach*. South Western Pub.
- World Bank. (2020). *Environment Overview*. <https://www.worldbank.org/en/topic/environment/overview>.
- World Bank. (2008). *Economically, Socially and Environmentally Sustainable Coal Mining Sector in China*. World Bank, Washington D. C., US.
- World Bank. (2012). *Inclusive Green Growth: The Pathway to Sustainable Development*. Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/6058> License: CC BY 3.0 IGO.”
- World Bank. (2015). *World Development Indicators*. <http://data.worldbank.org/data-catalog/world-development-indicators>.

- World Bank. (2017). *World Bank Group Engagement in Greece*. <https://www.worldbank.org/en/region/eca/brief/world-bank-group-engagement-greece>.
- World Bank. (2019). *How Does the World Bank Classify the Countries?* <https://datahelpdesk.worldbank.org/knowledgebase/articles/378834-how-does-the-world-bank-classify-countries>.
- World Bank. (2019). *World Development Indicators*. <http://databank.worldbank.org/source/world-development-indicators>.
- World Bank. (2020). *Quarterly External Debt Statistics*. <https://datacatalog.worldbank.org/dataset/quarterly-external-debt-statistics-sdds>.
- World Commission on Environment and Development (WCED). (1987). *Our Common Future*. Oxford University Press, Oxford (1987). <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>
- World Economic Situation and Prospects. (2019). *Department of Economic and Social Affairs Economic Analysis, United Nations*. <https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-2019/>
- World Health Organisation (WHO). (2019). *Climate Change: Overview*. https://www.who.int/health-topics/climatechange#tab=tab_1.
- World Resources Institute. (2019). *Confronting A New Reality, WRI 2019-2020 Annual Report*. <https://www.wri.org/annualreport/2019-20>.
- Worldometers. (2019). *Current World Population*. <http://www.worldometers.info/world-population/>.
- Worldwide Governance Indicator (WGI). (2017). *What is Mean by Governance?* <http://info.worldbank.org/governance/WGI/#faq-1>
- Wu, J., Deng, Y., Huang, J., Morck, R., & Yeung, B. (2014). Incentives and Outcomes: China's Environmental Policy. *Capital. Soc.* 9, 1–41.
- Wu, L., Ma, T., Bian, Y., Li, S., & Yi, Z. (2020). Improvement of Regional Environmental Quality: Government Environmental Governance and Public Participation. *Science of The Total Environment*, 717, 137265.
- Xia, J., & Zhu, Y.Z. (2002). The Measurement of Water Resources: A Study and Challenge On Water Resources Carrying Capacity. *J. Nat. Resour.* 17 (3), 262–269.

- Xie, Q., Xu, X., & Liu, X. (2019). Is There an EKC Between Economic Growth and Smog Pollution in China? New Evidence from Semiparametric Spatial Autoregressive Models. *Journal of Cleaner Production*, 220, 873-883.
- Xie, R. H., Yuan, Y. J., & Huang, J. J. (2017). Different Types of Environmental Regulations And Heterogeneous Influence On “Green” Productivity: Evidence from China. *Ecological economics*, 132, 104–112.
- Xu, G., & Yano, G. (2017). How Does Anti-Corruption Affect Corporate Innovation? Evidence from Recent Anti-Corruption Efforts in China. *Journal of Comparative Economics*, 45(3), 498–519.
- Xu, J. Q., Murphy, S. L., Kochanek, K. D., & Arias, E., (2015). *Mortality in the United States. NCHS Data Brief, No 267, National Center for Health Statistics, Hyattsville, MD, 2016.* Retrieved from <https://www.cdc.gov/nchs/products/databriefs/db267.htm>.
- Xu, L., Yu, B., & Yue, W. (2010). A Method of Green GDP Accounting Based on Eco-Service and A Case Study of Wuyishan, China. *Procedia Environmental Sciences*, 2, 1865-1872.
- Xu, X., Xub, X., Chen, Q., & Che, Y. (2016). The Research on Generalized Regional “Resource Curse” in China’s New Normal Stage. *Resour. Pol.* 49, 12–19.
- Yang, C., & Poon, J.P.H. (2009). A Regional Analysis of China’s Green GDP. *Eurasian Geography and Economics*, 50, 547-563.
- Yang, L., Manika, D., & Athanasopoulou, A. (2020). Are They Sinners or Saints? A Multi-Level Investigation of Hypocrisy in Organisational and Employee Pro-Environmental Behaviours. *Journal of Business Research*, volume 114, 336-347.
- Yasir, M., Majid, A., Yasir, M., & Qudratullah, H., (2020). Promoting Environmental Performance in Manufacturing Industry of Developing Countries Through Environmental Orientation and Green Business Strategies. *Journal of Cleaner Production*, 275, 123003.
- Yates, J. S., & Harris, L. M. (2018). Hybrid Regulatory Landscapes: The Human Right to Water, Variegated Neoliberal Water Governance, and Policy Transfer in Cape Town, South Africa, and Accra, Ghana. *World Development*, 110, 75-87.
- Yazdi, S. K., Tahmasebi, Z., & Mastorakis, N. (2010). Public Healthcare Expenditure and Environmental Quality in Iran. *Recent advances in applied economics*, 126-134.
- Yoeli, E., Budescu, D. V., Carrico, A. R., Delmas, M. A., DeShazo, J. R., Ferraro, P. J., Forster, H. A., Kunreuther, H., Larrick, R. P., Lubell, M., Markowitz, E. M., Tonn, B., Vandenbergh, M. P., & Weber, E. U. (2017). Behavioural Science Tools to Strengthen Energy & Environmental Policy. *Behav. Sci. Policy*, 3, 68–79.

- Yuan, R., Behrens, P., Tukker, A., & Rodrigues, J. F. D. (2018). Carbon Overhead: The Impact of The Expansion in Low-Carbon Electricity in China 2015e2040. *Energy Policy*, 119, 97-104.
- Zeng, K., & Eastin, J. (2012). Do Developing Countries Invest Up? The Environmental Effects of Foreign Direct Investment from Less-Developed Countries. *World Development*. 40 (11), 2221-2233.
- Zeng, K., & Eastin, J. (2007). International Economic Integration and Environmental Protection: The Case of China. *International Studies Quarterly*, 51(4), 971–995.
- Zhang, J., Cheng, M., & Yu, N. (2020). Internet Use and Lower Life Satisfaction: The Mediating Effect of Environmental Quality Perception. *Ecological Economics*, 176, 106725.
- Zhao, F., Xu, M., Zheng, Y., Wong, M. H. G., & Chi, Y. (2013). Improving the Environmental Kuznets Curve for Evaluating the Relationships Between Carbon Dioxide Emissions and Economic Development. *Journal of Food, Agriculture and Environment*, 11 (2), 1193–1199.
- Zheng, T.F., Zhao, Y., & Li, J.R. (2019). Rising Labour Cost, Environmental Regulation and Manufacturing Restructuring of Chinese Cities. *Journal of Cleaner Production*, 214, 583-592.
- Zuo, N., & Zhong, H. (2020). Can Resource Policy Reverse the Resource Curse? Evidence from China. *Resour. Pol.* 68, 101733.
- Zuo, X., Hua, H., Dong, Z., & Hao, C. (2017). Environmental Performance Index at The Provincial Level for China 2006–2011. *Ecol. Indic.* 75, 48–56.

APPENDICES

Relationship of Sustainable Economic Development and Environmental Performance via Moderating Effect of Governance in Developing and Developed Countries

