Decoupling Of Deforestation And Soy Production In The

'Rural youth' is a new focus area within the CGIAR (and in the wider academic literature), yet there are few studies which examine young people’s roles and relationships to trees, forests and agroforests. This background report suggests ways the CGIAR Research Program on Forests, Trees, and Agroforestry (FTA) can involve rural young people into its research and action. This is at a time when academic and government reports note the widening gaps between the aspirations young people have as compared to the realities of the job markets in much of the Global South. For rural and marginal areas, these trends are especially acute as agriculture and forestry sectors decline and many rural young people desire stable, paid employment., suggesting now is a critical time to involve young people into FTA’s research and action. In doing so, the report examines how rural youth are studied from a variety of angles: in contemporary agrarian, youth and development literatures, and examines how young people are studied by five large development agencies; and by some of CGIAR’s Research Programs. In learning from these studies, the report offers four major lessons for FTA. These lessons focus on how to study rural youth and their various contexts, conceptually and methodologically; how to engage local to regional rural development activities; and how to support local to national level partnerships. All of these activities give means and networks of support for rural young people’s development and employment. In sum, the report offers key
questions and starting points for engaging with young people in each of FTA’s Flagships, which can not only move the Gender Equality and Social Inclusion Strategy forward, but help study and address the challenges facing rural livelihoods and landscapes now and in the future. Covering recent developments in satellite observation data undertaken for monitoring forest areas from global to national levels, this book highlights operational tools and systems for monitoring forest ecosystems. It also tackles the technical issues surrounding the ability to produce accurate and consistent estimates of forest area changes, which are needed to report greenhouse gas emissions and removals from land use changes. Written by leading global experts in the field, this book offers a launch point for future advances in satellite-based monitoring of global forest resources. It gives readers a deeper understanding of monitoring methods and shows how state-of-art technologies may soon provide key data for creating more balanced policies. Soy in South America constitutes one of the most spectacular booms of agro-industrial commodity production in the world. It is the pinnacle of modernist agro-industrial practices, serving as a key nexus in food–feed–fuel production that underpins the agribusiness–conservationist discourse of "land sparing" through intensification. Yet soy production is implicated in multiple problems beyond deforestation, ranging from pesticide drift and contamination to social exclusion and conflicts in frontier zones, to concentration of wealth and income among the largest landowners and corporations. This book explores in depth the complex dynamics of soy production from its diverse social settings to its transnational connections, examining the politics of commodity and knowledge production, the role of the state, and the reach of corporate power in everyday life across soy landscapes in South America. Ultimately, the collection encourages us to search and struggle for agroecological alternatives through which we may overcome the pitfalls of this massive transnational capitalist agro-industry. This book was originally published as a special issue of The Journal of Peasant Studies. Forests hold a significant proportion of global biodiversity and terrestrial carbon stocks and are at the forefront of human-induced global change. The dynamics and distribution of forest vegetation determines the habitat for other organisms, and regulates the delivery of ecosystem services, including carbon storage. Presenting recent research across temperate and tropical ecosystems, this volume synthesises the numerous ways that forests are responding to global change and includes perspectives on: the role of forests in the global carbon and energy budgets; historical patterns of forest change and diversification; contemporary mechanisms of community assembly and implications of underlying drivers of global change; and the ways in which forests supply ecosystem services that support human lives. The chapters represent case studies drawn from the authors’ expertise, highlighting exciting new research and providing information that will be valuable to academics, students, researchers and practitioners with an interest in this field. This latest Fifth Assessment Report of the IPCC will again form the standard reference for all those concerned with climate change and its consequences. Hundreds of millions of people still suffer from chronic hunger and food insecurity despite sufficient levels of global food production. The poor's inability to afford adequate diets remains the biggest constraint to solving hunger, but the dynamics of global food insecurity are complex
and demand analysis that extends beyond the traditional domains of economics and agriculture. How do the policies used to promote food security in one country affect nutrition, food access, natural resources, and national security in other countries? How do the priorities and challenges of achieving food security change over time as countries develop economically? The Evolving Sphere of Food Security seeks to answer these two important questions and others by exploring the interconnections of food security to security of many kinds: energy, water, health, climate, the environment, and national security. Through personal stories of research in the field and policy advising at local and global scales, a multidisciplinary group of scholars provide readers with a real-world sense of the opportunities and challenges involved in alleviating food insecurity. In sub-Saharan Africa, for example, management of HIV/AIDS, the establishment of an equitable system of land property rights, and investment in solar-powered irrigation play an important role in improving food security---particularly in the face of global climate change. Meanwhile, food price spikes associated with the United States' biofuels policy continue to have spillover effects on the world's rural poor with implications for stability and national security. The Evolving Sphere of Food Security traces four key areas of the food security field: 1) the political economy of food and agriculture; 2) challenges for the poorest billion; 3) agriculture's dependence on resources and the environment; and 4) food in a national and international security context. This book connects these areas in a way that tells an integrated story about human lives, resource use, and the policy process.

Bioenergy is coming to be seen as a priority on the international agenda, with the use of liquid biofuels a key strategy in the attempt to meet both the demand for environmental sustainability and the energy needs of countries. The growth in the production and use of biofuels around the world has led to increased interest and discussion about this subject. Given the dynamics of this phenomenon, the organizers of this book, based on more than 10 years experience of joint research on this subject, seek to address key issues relating to the production and marketing of liquid biofuels using the Brazilian experience with ethanol and biodiesel as an illustrative case, as well as the experiences of the leading producers and consumers of biofuels. The topics to be covered in this book include the role of public policies in fostering the emergence of the biofuels industry, the main socio-economic, environmental, technological aspects and the prospects for the sector. The conceptual and methodological bases that provide analytical support to the book are based on recent research published in indexed journals. The structure and content of the book seek to address some central issues regarding: How the biofuel industries have emerged and developed in different countries? What factors have been crucial to the success or failure of different production initiatives? What are the main socio-economic-environmental impacts of the production and consumption of liquid biofuels? How are national and international markets for liquid biofuels being structured? To what extent and/or in what conditions can the experiences and lessons learned at the national level be transferred and adapted in other countries? Finally, based on the scenarios, the prospects for liquid biofuels will be discussed. Choosing appropriate practices and policies for biofuel production requires an understanding of how soils, climate, farm types, infrastructure, markets and social organisation affect the
establishment and performance of these crops. The book highlights land use
dynamics, cultivation practices related to conversion and wider impacts. It explores
how biofuel production chain development is steered by emerging technologies and
management practices and how both can be influenced by effective policies designed
to encourage sustainable biofuel production. The book highlights major biofuel
production chains including: cane cultivation in Brazil corn ethanol in the USA
wheat and rapeseed in Europe oil palm in the Far East cane in Asia and Africa SRC
and other lignocellulosic crops. In each case the development, cropping systems and
impacts are discussed, system dynamics are shown and lessons drawn for the way
things could or should change. Biofuel Cropping Systems is a vital resource for all
those who want to understand the way biofuels are produced and how they impact
other elements of society and especially how improvements can be made. It is a
handbook for students, biofuel producers, researchers and policymakers in energy
and agriculture. This latest Fifth Assessment Report of the Intergovernmental Panel
on Climate Change (IPCC) will again form the standard reference for all those
concerned with climate change and its consequences, including students, researchers
and policy makers in environmental science, meteorology, climatology, biology,
ecology, atmospheric chemistry and environmental policy. It is increasingly
recognized that the economic value of forests is not merely the production of timber.
Forests provide other key ecosystem services, such as being sinks for greenhouse
gases, hotspots of biodiversity, tourism and recreation. They are also vitally
important in preventing soil erosion and controlling water supplies, as well as
providing non-timber forest products and supporting the livelihoods of many local
people. This handbook provides a detailed, comprehensive and broad coverage of
forest economics, including traditional forest economics of timber production,
economics of environmental role of forests, and recent developments in forest
economics. The chapters are grouped into six parts: fundamental topics in forest
resource economics; economics of forest ecosystems; economics of forests, climate
change, and bioenergy; economics of risk, uncertainty, and natural disturbances;
economics of forest property rights and certification; and emerging issues and
developments. Written by leading environmental, forest, and natural resource
economists, the book represents a definitive reference volume for students of
economics, environment, forestry and natural resource economics and
management. Water Footprint Assessment is a young research field that considers
how freshwater use, scarcity, and pollution relate to consumption, production, and
trade patterns. This book presents a wide range of studies within this new field. It is
argued that collective and coordinated action—at different scale levels and along all
stages of commodity supply chains—is necessary to bring about more sustainable,
efficient, and equitable water use. The presented studies range from farm to
catchment and country level, and show how different actors along the supply chain of
final commodities can contribute to more sustainable water use in the chain. Over the
last two decades global production of soybean and palm oil seeds have increased
enormously. Because these tropically rainfed crops are used for food, cooking, animal
feed, and biofuels, they have entered the agriculture, food, and energy chains of most
nations despite their actual growth being increasingly concentrated in Southeast Asia

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and South America. The planting of these crops is controversial because they are sown on formerly forested lands, rely on large farmers and agribusiness rather than smallholders for their development, and supply export markets. The contrasts with the famed Green Revolution in rice and wheat of the 1960s through the 1980s are stark, as those irrigated crops were primarily grown by smallholders, depended upon public subsidies for cultivation, and served largely domestic sectors. The overall aim of the book is to provide a broad synthesis of the major supply and demand drivers of the rapid expansion of oil crops in the tropics; its economic, social, and environmental impacts; and the future outlook to 2050. After introducing the dramatic surge in oil crops, chapters provide a comparative perspective from different producing regions for two of the world's most important crops, oil palm and soybeans in the tropics. The following chapters examine the drivers of demand of vegetable oils for food, animal feed, and biodiesel and introduce the reader to price formation in vegetable oil markets and the role of trade in linking consumers across the world to distant producers in a handful of exporting countries. The remaining chapters review evidence on the economic, social, and environmental impacts of the oil crop revolution in the tropics. While both economic benefits and social and environmental costs have been huge, the outlook is for reduced trade-offs and more sustainable outcomes as the oil crop revolution slows and the global, national, and local communities converge on ways to better managed land use changes and land rights. In a rapidly changing world, there is an ever-increasing need to monitor the Earth’s resources and manage it sustainably for future generations. Earth observation from satellites is critical to provide information required for informed and timely decision making in this regard. Satellite-based earth observation has advanced rapidly over the last 50 years, and there is a plethora of satellite sensors imaging the Earth at finer spatial and spectral resolutions as well as high temporal resolutions. The amount of data available for any single location on the Earth is now at the petabyte-scale. An ever-increasing capacity and computing power is needed to handle such large datasets. The Google Earth Engine (GEE) is a cloud-based computing platform that was established by Google to support such data processing. This facility allows for the storage, processing and analysis of spatial data using centralized high-power computing resources, allowing scientists, researchers, hobbyists and anyone else interested in such fields to mine this data and understand the changes occurring on the Earth’s surface. This book presents research that applies the Google Earth Engine in mining, storing, retrieving and processing spatial data for a variety of applications that include vegetation monitoring, cropland mapping, ecosystem assessment, and gross primary productivity, among others. Datasets used range from coarse spatial resolution data, such as MODIS, to medium resolution datasets (Worldview -2), and the studies cover the entire globe at varying spatial and temporal scales. After the United Nations adopted the 17 Sustainable Development Goals (SDGs) to "end poverty, protect the planet, and ensure prosperity for all," researchers and policy makers highlighted the importance of targeted investment in science, technology, and innovation (STI) to make tangible progress. Science, Technology, and Innovation for Sustainable Development Goals showcases the roles that STI solutions can play in meeting on-the-ground socio-
economic and environmental challenges among domestic and international organizations concerned with the SDGs in three overlapping areas: agriculture, health, and environment/energy. Authors and researchers from 31 countries tackle both big-picture questions, such as scaling up the adoption and diffusion of new sustainable technologies, and specific, localized case studies, focusing on developing and middle-income countries and specific STI solutions and policies. Issues addressed include renewable energy, automated vehicles, vaccines, digital health, agricultural biotechnology, and precision agriculture. In bringing together diverse voices from both policy and academic spheres, this volume provides practical and relevant insights and advice to support policy makers and managers seeking to enhance the roles of STI in sustainable development.

This book presents a collection of essays exploring the legal, economic, socio-environmental, and ethical dimensions of human-animal interaction in Brazil. As one of the primary global producers and exporters of beef, with a level of biodiversity in its rain-forests found nowhere else under threat, the importance of Brazil for animal life is unquestionable. Shedding light on the profound transformations in the consumption and production of animal-sourced foods that have taken place over the last five decades, the authors examine the consequences of this phenomenon for the lives of animals, the health of the population, and the environment. The book also offers an analysis of the animal welfare and animal protection legislation in Brazil, before presenting a number of notable cases involving animal advocacy and activism in recent years. An important and timely collection, this book concludes with an exploration of the historical, socio-cultural and economic aspects that influence the Brazilian ethos regarding the morality of the treatment of animals.

This book contributes to broadening the interdisciplinary knowledge basis for the description, analysis and assessment of land use practices. It presents conceptual advances grounded in empirical case studies on four main themes: distal drivers, competing demands on different scales, changing food regimes and land-water competition. Competition over land ownership and use is one of the key contexts in which the effects of global change on social-ecological systems unfold. As such, understanding these rapidly changing dynamics is one of the most pressing challenges of global change research in the 21st century. This book contributes to a deeper understanding of the manifold interactions between land systems, the economics of resource production, distribution and use, as well as the logics of local livelihoods and cultural contexts. It addresses a broad readership in the geosciences, land and environmental sciences, offering them an essential reference guide to land use competition.

During Latin America’s China-led commodity boom, governments turned a blind eye to the inherent flaws in the region’s economic policy. Now that the commodity boom is coming to an end, those flaws cannot be ignored. High on the list of shortcomings is the fact that Latin American governments—and Chinese investors—largely fell short of mitigating the social and environmental impacts of commodity-led growth. The recent commodity boom exacerbated pressure on the region’s waterways and forests, accentuating threats to human health, biodiversity, global climate change and local livelihoods. China and Sustainable Development in Latin America documents the social and environmental impact of the China-led commodity boom in the region. It also highlights important areas of
innovation, like Chile’s solar energy sector, in which governments, communities and investors worked together to harness the commodity boom for the benefit of the people and the planet. The Amazon region is the focus of intense conflict between conservationists concerned with deforestation and advocates of agro-industrial development. This book focuses on the contributions of environmental organizations to the preservation of Brazilian Amazonia. It reveals how environmental organizations such as Greenpeace, Friends of the Earth, WWF and others have fought fiercely to stop deforestation in the region. It documents how the history of frontier expansion and environmental struggle in the region is linked to Brazil’s position in an evolving capitalist world-economy. It is shown how Brazil’s effort to become a developed country has led successive Brazilian governments to devise development projects for Amazonia. The author analyses how globalization has led to the expansion of international commodity chains in the region, particularly for mineral ores, soybeans and beef. He shows how environmental organizations have politicized these commodity chains as weapons of conservation, through boycotting certain products, while other pro-development groups within Brazil claim that such organizations threaten Brazil’s sovereignty over its own resources. How an ordinary mammal manipulated nature to become technologically sophisticated city-dwellers -- and why our history points to an optimistic future in the face of environmental crisis. Our species long lived on the edge of starvation. Now we produce enough food for all 7 billion of us to eat nearly 3,000 calories every day. This is such an astonishing thing in the history of life as to verge on the miraculous. The Big Ratchet is the story of how it happened, of the ratchets -- the technologies and innovations, big and small -- that propelled our species from hunters and gatherers on the savannahs of Africa to shoppers in the aisles of the supermarket. The Big Ratchet itself came in the twentieth century, when a range of technologies -- from fossil fuels to scientific plant breeding to nitrogen fertilizers -- combined to nearly quadruple our population in a century, and to grow our food supply even faster. To some, these technologies are a sign of our greatness; to others, of our hubris. MacArthur fellow and Columbia University professor Ruth DeFries argues that the debate is the wrong one to have. Limits do exist, but every limit that has confronted us, we have surpassed. That cycle of crisis and growth is the story of our history; indeed, it is the essence of The Big Ratchet. Understanding it will reveal not just how we reached this point in our history, but how we might survive it. This latest Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) will again form the standard reference for all those concerned with climate change and its consequences, including students, researchers and policy makers in environmental science, meteorology, climatology, biology, ecology, atmospheric chemistry and environmental policy. Handbook of Green Economics reveals the breadth and depth of advanced research on sustainability and growth, also identifying opportunities for future developments. Through its multidimensional examination, it demonstrates how overarching concepts, such as green growth, low carbon economy, circular economy and others work together. Some chapters reflect on different discourses on the green economy, including pro-growth perspectives and transformative approaches that entail de-growth. Others argue that green policies can spark economic innovation,
particular in developing and emerging market economies. Part literature summary, part analysis and part argument, this book shows how the right conditions can stimulate economic growth while achieving environmental sustainability. This book will be a valuable resource for graduate students and academic researchers whose focus is on the green economy. With an increasing interest in the topic among researchers and policymakers, users will find different theoretical perspectives and explore policy implications in this growing subject area. Covers the failures of the past, the challenges of the present, and the opportunities of the future. Surveys 10 aspects of the green economy, including conceptualization, natural capital, poverty and inequality, welfare, and finance. Emphasizes the theoretical and empirical aspects of greening approaches that are policy-relevant. This book provides a detailed overview of aspects related to the overall provision chain for biokerosene as part of the global civil aviation business. Starting with a review of the current market situation for aviation fuels and airplanes and their demands, it then presents in-depth descriptions of classical and especially new types of non-edible biomass feedstock suitable for biokerosene provision. Subsequent chapters discuss those fuel provision processes that are already available and those still under development based on various biomass feedstock materials, and present e.g. an overview of the current state of the art in the production of a liquid biomass-based fuel fulfilling the specifications for kerosene. Further, given the growing interest of the aviation industry and airlines in biofuels for aviation, the experiences of an air-carrier are presented. In closing, the book provides a market outlook for biokerosene. Addressing a broad range of aspects related to the pros and cons of biokerosene as a renewable fuel for aviation, the book offers a unique resource. In 1972, The Limits to Growth introduced the idea that world resources are limited. Soon after, people became aware of the threats to the world’s rainforests, the biggest terrestrial repositories of biodiversity and essential regulators of global air and water cycles. Since that time, new research and technological advances have greatly increased our knowledge of how rainforests are being affected by changing patterns of resource use. Increasing concern about climate change has made it more important than ever to understand the state of the world’s tropical forests. This book provides an up-to-date picture of the health of the world’s tropical forests. Claude Martin, an eminent scientist and conservationist, integrates information from remote imaging, ecology, and economics to explain deforestation and forest health throughout the world. He explains how urbanization, an increasingly global economy, and a worldwide demand for biofuels put new pressure on rainforest land. He examines the policies and market forces that have successfully preserved forests in some areas and discusses the economic benefits of protected areas. Using evidence from ice core records and past forest cover patterns, he predicts the most likely effects of climate change. Claude Martin brings his wealth of experience as an ecologist, director of the WWF, and advisor to various conservation organizations to bear on the latest research from around the world. Contributions from eight leading experts provide additional insight. Energy has become a central concern of many strands of geographical inquiry, from global climate change to the effects of energy decisions on our lives. However, many aspects of the ‘black box’ of relationships at the energy-society interface remain unopened, especially in terms of
the spatial underpinnings of energy production and consumption within nations, cities and regions. Debates focusing on the location and nature of energy flows frequently fail to consider the multiple geographical networks that illustrate and explain the distribution of fuels and services around the world. Providing an integrated perspective on the complex interdependencies between energy and geography, The Routledge Research Companion to Energy Geographies offers a timely conceptual framework to study the multiple facets of energy geography, including security, space and place, planning, environmental science, economics and political science. Illustrating how a geographic approach towards energy can aid decision-making pathways in the domains of social justice and environment, this book provides insights that will help move the international community toward greater cooperation, stability, and sustainability. This book examines recent developments in Latin American biofuel production. Taking “sustainable development” as a central theme, each chapter considers one country in the region and explores how biofuel production is evolving given concerns about food sovereignty, trade and other social issues. Environmental conservation, as well as an increasingly complex and globalized economic structure, is also taken into account. The contributions to this volume critically explore the ways in which biofuel production in Latin America impact social, economic and environmental systems: the so-called “three pillars of sustainability”. Numerous stakeholders, drawn from government, industry, civil society and academia have attempted to define “Sustainable Development” in the context of biofuel production and to operationalize it through a series of principles, criteria, and highly specific indicators. Nevertheless, it remains a fluid and contested concept with deep political and social ramifications, which each chapter explores in detail. This is an invitation to readers to ponder universal questions about human relations with rivers and water for the precarious times of the Anthropocene. The book asks how humans can learn through sensory embodied encounters with local waterways that shape the architecture of cities and make global connections with environments everywhere. The book considers human becomings with urban waterways to address some of the major conceptual challenges of the Anthropocene, through stories of trauma and healing, environmental activism, and encounters with the living beings that inhabit waterways. Its unique contribution is to bring together Australian Aboriginal knowledges with contemporary western, new materialist, posthuman and Deleuzian philosophies, foregrounding how visual, creative and artistic forms can assist us in thinking beyond the constraints of western thought to enable other modes of being and knowing the world for an unpredictable future. Riverlands of the Anthropocene will be of particular interest to those studying the Anthropocene through the lenses of environmental humanities, environmental education, philosophy, ecofeminism and cultural studies. This book examines the effects that land-use changes (notably agricultural intensification, logging, soil erosion, urbanisation and mining) have on soil characteristics and processes in tropical and savannah environments. It covers a range of geographical regions and environments as impacts of land use change are often site specific. The effects of land use change on various aspects of the soil ecosystem from both a chemical and biological perspective will be examined. In this authoritative book, leading
international experts examine the use of scenario analyses and modelling in environmental assessments. Including chapters with a global or regional focus as well as in-depth case studies from Africa, Asia, Australia, Europe, North and South America, contributors analyse the latest research on the applications of scenarios and models and explore the opportunities and challenges in using them for policy relevant research and action. The CEO of the Nature Conservancy and the author of The Future of the Wild demonstrate how profitable business can coexist with environmentalism, explaining the economic importance of responsible natural resource stewardship while sharing guidelines for corporate decision-making that is both economically and environmentally sound. In its second volume, this book aims to link the academic research with development in the real world and provide a historical and institutional background that can enrich more formal research. The first section will include an assessment of the evolution and the state of the nascent second-generation biofuel as well as a perspective on the evolution of corn ethanol and sugarcane ethanol in Brazil. It will also include a historical and institutional background on the biofuel industry in Brazil that has global lessons, and later, provide a technical overview of major analytical tools used to assess the economic, land use and greenhouse gas implications of biofuel policies at a regional and global level. Additionally, the book analyzes the various drivers for land use change both at a micro-economic level and at a macro-economic level. It presents studies that apply regional and global economic models to examine the effects of biofuel policies in the US, EU and Brazil on regional and global land use, on food and fuel prices and greenhouse gas emissions. These papers illustrate the use of partial and general equilibrium modeling approaches to simulate the effects of various biofuel policies, and includes studies showing the effects of risk aversion, time preferences and liquidity constraints on farmers decision to grow energy crops for biofuel production. By presenting the tools of lifecycle analysis for assessing the direct greenhouse gas intensity of biofuels, this handbook investigates the types of indirect or market mediated effects that can offset or strengthen these direct effects. It will include tools to assess the direct and indirect effects of biofuel production on greenhouse gas emissions in the US and Brazil, and ultimately provide a comprehensive background to understand the state of biofuel in the present and how to analyze their implication. This book analyses the socio-economic and political forces driving the climate emergency, developing the concept of 'sociogenic climate change' to show how societies create the crisis and are challenged by it; the development of inequalities within and between countries are at the heart of generating the emergency and in obstructing its resolution. The ITF Transport Outlook provides an overview of recent trends and near-term prospects for the transport sector at a global level as well as long-term prospects for transport demand to 2050. The analysis covers freight (maritime, air, surface) and passenger transport (car, rail, air) as well as the various transport modes. This book presents recent estimates on the rate of change of major land classes. Aggregated globally, multiple impacts of local land changes are shown to significantly affect central aspects of Earth System functioning. The book offers innovative developments and applications in the fields of modeling and scenario construction. Conclusions are also drawn about the most pressing implications for the design of
appropriate intervention policies. This book has been developed from a workshop on Technological change in agriculture and tropical deforestation organised by the Center for International Forestry Research and held in Costa Rica in March, 1999. It explores how intensification of agriculture affects tropical deforestation using case studies from different geographical regions, using different agricultural products and technologies and in differing demographic situations and market conditions. Guidance is also given on future agricultural research and extension efforts. This latest Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) will again form the standard reference for all those concerned with climate change and its consequences, including students, researchers and policy makers in environmental science, meteorology, climatology, biology, ecology, atmospheric chemistry and environmental policy. In recent years the concept of the resource "nexus" has been both hotly debated and widely adopted in research and policy circles. It is a powerful new way to understand and better govern the myriad complex relationships between multiple resources, actors and their security concerns.

Particular attention has been paid to water, energy and food interactions, but land and materials emerge as critical too. This comprehensive handbook presents a detailed review of current knowledge about resource nexus-related frameworks, methods and governance, including a broad set of inter-disciplinary perspectives. Written by an international group of scholars and practitioners, the volume focuses on rigorous research, including tools, methods and modelling approaches to analyse resource use patterns across societies and scales from a "nexus perspective". It also provides numerous examples from political economy to demonstrate how resource nexus frameworks can illuminate issues such as land grabs, mining, renewable energy and the growing importance of economies such as China, as well as to propose lessons and outlooks for sound governance. The volume seeks to serve as an essential reference text, source book and state-of-the-art, science-based assessment of this increasingly important topic – the resource nexus – and its utility in efforts to enhance sustainability of many kinds and implement the United Nations Sustainable Development Goals in an era of environmental and geopolitical change.

How Latin American countries became leading voices and innovators on addressing climate change—and what threatens their leadership. Latin American countries have increased their influence at the United Nations climate change negotiations and offered potential solutions on coping with global warming. But in the face of competing priorities, sometimes these climate policies are jettisoned, undermined, or simply ignored. A Fragmented Continent focuses on Latin America's three major blocs at the U.N. climate negotiations and how they attempt to balance climate action with building prosperity. Brazil has reduced its deforestation but continues its drive for economic growth and global recognition. A leftist group led by Venezuela, Bolivia, and Ecuador decries the injustice of climate change but is highly dependent on the export of fossil fuels. A new group, including Chile, Costa Rica, and Peru and supported by Mexico, offers sharp reductions in their carbon emissions in return for greater action by others; these countries now have to deliver on their promises. Weaving together issues of politics and economy, trade, foreign policy, civil society, and environmental protection, A Fragmented Continent offers a long-missing
Download Free Decoupling Of Deforestation And Soy Production In The perspective on one of this century's greatest challenges and neglected regions. Recent claims regarding convergence and divergence between land change science and political ecology as approaches to the study of human-environment relationships and sustainability science are examined and analyzed in this innovative volume. Comprised of 11 commissioned chapters as well as introductory and concluding/synthesis chapters, it advances the two fields by proposing new conceptual and methodological approaches toward integrating land change science and political ecology. The book also identifies areas of fundamental difference and disagreement between fields. These theoretical contributions will help a generation of young researchers refine their research approaches and will advance a debate among established scholars in geography, land-use studies, and sustainability science that has been developing since the early 2000s. At an empirical level, case studies focusing on sustainable development are included from Africa, Central and South America, and Southeast Asia. The specific topics addressed include tropical deforestation, swidden agriculture, mangrove forests, gender, and household issues. "Latin America has a unique historical and cultural context, is home to emerging global powers such as Brazil and Mexico, and is tied to world regions including China, India, and Africa. Global Latin America considers this regional interconnectedness and examines its meaning and impact in a global world. Its innovative essays, interviews, and stories highlight the insights of public intellectuals, political leaders, artists, academics, and activists, thereby allowing students to gain an appreciation of the diversity and global relevance of Latin America in the twenty-first century"--Provided by publisher. Copyright code: ad0d721916fd22a85a3d31e0a9fa7a1f