

Survey Questionnaire Climate Change Version

Climate Change and Agriculture in Africa Impact Assessment and Adaptation Strategies Earthscan

This dissertation reports research about the translation of climate change in science education. Public controversies about climate change education raises questions about the lived experiences of teachers in Oklahoma and the role of science education in increasing public understanding. A mixed methods research design included rhetorical analysis of climate change denial media, key informant interviews with science education stakeholders, and a survey questionnaire of secondary science teachers. Final analysis was further informed by archival research and supplemented by participant observation in state-wide meetings and science teacher workshops. The results are organized into three distinct manuscripts intended for publication across the fields of communication, science education, and climate science. As a whole the dissertation answers the research question, how does manufactured scientific controversy about climate change present specific challenges and characterize negotiations in secondary science education in Oklahoma? Taken together, the findings suggest that manufactured controversy about climate change introduces a logic of non-problematicity, challenges science education policy making, and undermines scientific consensus about global warming. Climate change poses many challenges that affect society and the natural world. With these challenges, however, come opportunities to respond. By taking steps to adapt to and mitigate climate change, the risks to society and the impacts of continued climate change can be lessened. The National Climate Assessment, coordinated by the U.S. Global Change Research Program, is a mandated report intended to inform response decisions. Required to be developed every four years, these reports provide the most comprehensive and up-to-date evaluation of climate change impacts available for the United States, making them a unique and important climate change document. The draft Fourth National Climate Assessment (NCA4) report reviewed here addresses a wide range of topics of high importance to the United States and society more broadly, extending from human health and community well-being, to the built environment, to businesses and economies, to ecosystems and natural

resources. This report evaluates the draft NCA4 to determine if it meets the requirements of the federal mandate, whether it provides accurate information grounded in the scientific literature, and whether it effectively communicates climate science, impacts, and responses for general audiences including the public, decision makers, and other stakeholders.

This book offers insights into the educational dimensions of climate change and promotes measures to improve education in this context. It is widely believed that education can play a key role in finding global solutions to many problems related to climate change. Indeed, education as a process not only helps young people to better understand and address the impact of global warming, but also fosters better attitudes and behaviours to aid efforts towards mitigating climate change and adapting to a changing environment. But despite the central importance of education in relation to climate change, there is a paucity of publications on this theme. Against this background, the book focuses on the educational aspects of climate change and showcases examples of research, projects and other initiatives aimed at educating various audiences. It also provides a platform for reflections on the role education can play in fostering awareness on a changing climate. Presenting a wide range of valuable lessons learned, which can be adapted and replicated elsewhere, the book appeals to educators and practitioners alike.

Do Scientists Agree about Climate Change?

Handbook of Research on Climate Change Impact on Health and Environmental Sustainability

Advances in Climate Change and Global Warming Research and Application: 2012 Edition

The Arctic in the Anthropocene

Long-Term Economic Development of Divergence and Convergence

This book shows how industries perceive 'weather' as they pose their positioning in climate change adaptation. With empirical analysis, this book extends policy discussion. Weather and climate related industries are clearly knowledge intensive service sectors that have not blossomed yet. Holding his Ph.D. degree from the LBJ School (Dec. 1997), Junmo Kim is a Professor at the Dept. of Public Admin, Konkuk University, in Seoul, Korea. Before coming to the University, he has served as an Associate Research fellow at two government funded research institutes, the Science & Technology Policy Institute (STEPI) and Korea Inst. of Public Admin (KIPA). His areas of interests include Science, Industrial &

Technology Policy, Regional Development, Wage analysis, and Policy Evaluation. At the university, he teaches Science & Technology Policy, Policy Evaluation, Regional Development, and E-government issues. His major publications include The South Korean Economy (Ashgate 2002), Globalization and Industrial Development (iUniverse 2005) and contributing chapters in Inequality and Industrial Change (Cambridge 2001, James K. Galbriath ed.) and Learning and Knowledge for the Network Society (Purdue University Press 2004).

This book is the first attempt to highlight the Great Divergence between Europe and China from the perspective of environmental change. The author discusses the agrarian economy while considering the effects of climate change in both Europe and China at a long-term scale. The findings in the book supplement current knowledge and discussion on the Great Divergence across Eurasia. The book further aims to empirically review the climatic impacts on the human community in the past as the relevant historical reference by which to understand human-nature linkages in the current Anthropocene epoch. The statistical analysis in the book will contribute to the development of relevant subjects, such as environmental humanities, quantitative history, and historical geography. The book thus is suitable to all levels of students, undergraduate and postgraduate, in the university. In summary, by combining multiple disciplines in both methods and knowledge, this book becomes an interesting reference to students, academic staff, and even the general public. It may also appeal to policymakers, who aim to address the impacts of climate change according to past societal experiences.

The Carbon Capture and Sequestration Technologies Program in the Laboratory for Energy and the Environment at MIT conducted a survey of public attitudes on energy use and environmental concerns. Over 1,200 people, representing a general population sample of the United States, responded. The survey asked a representative sample of the American public seventeen questions about the environment, global warming, and climate change-mitigation technologies. The analysis in this thesis uses the survey responses to draw conclusions about the level of public understanding and awareness of global climate change and carbon dioxide capture and storage and to suggest implications for public outreach. The survey results show that carbon dioxide capture and storage and carbon sequestration are largely unknown to the general public, and there is significant confusion over which environmental issue the technology is intended to address. The environment is not a top priority for the U.S. public, and global warming is not the top environmental concern, even for those concerned about the environment. The public's willingness to pay to solve global warming increases when an individual is concerned about the environment or believes that immediate action is necessary to address global warming. An experiment within the survey shows that a large portion of the public supports investment in renewable energy technologies but that support decreases when cost information for all climate mitigation technologies is provided.

Questions surrounding the issue of climate change are evolving from "Is it happening?" to "What can be done about it?" The primary obstacles to addressing it at this point are not scientific but political and economic; nonetheless a quick resolution is unlikely. Ignorance and confusion surrounding the issue -- including a lack of understanding of climate science, its implications for the environment and society, and the range of policy options available -- contributes to the political morass over dealing with climate change in which we find ourselves. Climate Change Policy addresses that situation by bringing together a wide range of new

writings from leading experts that examine the many dimensions of the topics important in understanding climate change and policies to combat it. Chapters consider: climate science in historical perspective analysis of uncertainties in climate science and policy the economics of climate policy North-South and intergenerational equity issues the role of business and industry in climate solutions policy mechanisms including joint implementation, emissions trading, and the so-called clean development mechanism Regardless of the fate of the Kyoto Protocol, the issues raised in that debate will persist as new climate protection regimes emerge; this volume treats most of those topics. Tying the chapters together is a shared conclusion that climate change is a real and serious problem, and that we as a society have an obligation not merely to adapt to it but to mitigate it in whatever intelligible ways we can develop. Cost-effectiveness is not disdained, but neither is the imperative for valuing species threatened by rapid climate change.

Impact Assessment and Adaptation Strategies

Limits to Climate Change Adaptation

Evidence from the Middle East and North Africa

Vulnerability and Adaptation to Climate Change in Bangladesh

Review of the Draft Fourth National Climate Assessment

A user guide to the CCAFS Gender and Climate Change Survey data

This book is a printed edition of the Special Issue "Climate Change Mitigation and Adaptation - ZEMCH 2016" that was published in Sustainability

This edited collection brings together a diverse set of original research and review articles that contribute towards a unified objective of redesigning the future health workforce. Our fundamental premise is that the future health workforce needs to be more closely aligned to population needs and be able to address emerging challenges of the 21st century. • The collection includes 13 articles (11 original research; 2 review) from nine countries. • Original research articles that contributed to this special issue came from Australia, Brazil, Canada, China, Japan, South Korea, Sweden, the United Kingdom and the United States of America. • The collection features a range of health professionals including medical, dental, nursing, allied health, social work, and health management workforce. This unique piece of scholarship adds to ongoing global efforts on health workforce integration, universal health coverage, and creating sustainable and people-centric health systems

Climate change places demand on existing governance structures to reform and work more effectively than in the past. In response, greater attention to and funding for climate change adaptation—including the efforts of National Adaptation Programmes of Action (NAPAs), the Least Developed Country Fund, the Special Climate Change Fund, the

Adaptation Fund, and the E.U. Global Climate Change Alliance—provide an opportunity for institutional, organizational, and human-capacity strengthening. This study was conducted to explore the challenges and opportunities for building human, organizational, and institutional capacity for more effective climate change adaptation in developing countries. It is part of a larger research project titled “Enhancing Women’s Assets to Manage Risk under Climate Change: Potential for Group-Based Approaches,” which is being conducted to help organizations better understand ways in which development projects can assist rural households in adapting to and managing the effects of climate change. This report provides some reflections and insights on the level of awareness, practices, and organizational and institutional issues being faced by countries as they adapt to climate change, based on interviews with 87 practitioners working in government agencies, local organizations, international organizations, and think tanks reporting involvement in climate change adaptation. Data were collected in Bangladesh, Ethiopia, Kenya, and Mali using both an e-survey platform and face-to-face interviews. Responses reveal active work within these organizations on climate change adaptation and emphasize their important role in the countries’ efforts to address and adapt to climate change. Responses also reveal strong awareness among these organizations of different aspects of climate change adaptation along the different stages in a climate change adaptation project cycle, which may be a reflection of the active discussions and awareness campaigns during NAPA development in these countries. However, despite the awareness and presence of national strategies and action plans, there seem to be no explicit and clearly defined policy and strategy within these organizations outlining their role in and contribution to the national and collective efforts and, more importantly, no explicit and measurable targets and monitoring and evaluation (M&E) system to track progress and outcomes over time. Reported capacity gaps can be grouped into two categories: training needs and institutional challenges. In many organizations, there is limited awareness of and emphasis on the need for participation of target groups and beneficiaries during design and planning of climate change adaptation projects. In addition, many respondents reported a need for greater

attention to issues related to profitability, financial sustainability, and market access from climate change project design to M&E. Finally, respondents emphasized that climate change projects should pay greater attention to gender, social, political, and cultural issues in their design and implementation. Reflections of respondents also highlighted the need for organizational capacity strengthening for those local organizations working in and providing services to rural communities, and for promoting a culture of impact and M&E within these organizations, in addition to the reported training needs in climate change management and in gender and social analysis. While this report provides some insights, further empirical analyses are needed to discover more details on strategies that could help trigger mind-set and organizational culture change and to capture the complexity of organizational and institutional issues hindering climate change adaptation efforts that aim at reducing vulnerability and contributing to development outcomes.

Psychology and Climate Change: Human Perceptions, Impacts, and Responses organizes and summarizes recent psychological research that relates to the issue of climate change. The book covers topics such as how people perceive and respond to climate change, how people understand and communicate about the issue, how it impacts individuals and communities, particularly vulnerable communities, and how individuals and communities can best prepare for and mitigate negative climate change impacts. It addresses the topic at multiple scales, from individuals to close social networks and communities. Further, it considers the role of social diversity in shaping vulnerability and reactions to climate change. Psychology and Climate Change describes the implications of psychological processes such as perceptions and motivations (e.g., risk perception, motivated cognition, denial), emotional responses, group identities, mental health and well-being, sense of place, and behavior (mitigation and adaptation). The book strives to engage diverse stakeholders, from multiple disciplines in addition to psychology, and at every level of decision making - individual, community, national, and international, to understand the ways in which human capabilities and tendencies can and should shape policy and action to address the urgent and very real issue of climate change. Examines

the role of knowledge, norms, experience, and social context in climate change awareness and action Considers the role of identity threat, identity-based motivation, and belonging Presents a conceptual framework for classifying individual and household behavior Develops a model to explain environmentally sustainable behavior Draws on what we know about participation in collective action Describes ways to improve the effectiveness of climate change communication efforts Discusses the difference between acute climate change events and slowly-emerging changes on our mental health Addresses psychological stress and injury related to global climate change from an intersectional justice perspective Promotes individual and community resilience Tracing the Flow

Climate Change Adaptation, Resilience and Hazards Drawdown

Climate Change Economics between Europe and China

A Survey of Attitudes Toward Climate Change Mitigation

China's Transition on Climate Change Communication and Governance

This book serves the purpose of showcasing some of the works in respect of applied research, field projects, and best practice to foster climate change adaptation across the region. Climate change is having a much greater impact in the Mediterranean than the global average. In the Paris Climate Agreement, the UN member states pledged to stop global warming at well below two degrees, if possible at 1.5 degrees. This mark, which is expected elsewhere only for 2030 to 2050, has already been reached in the region. The situation could worsen in the coming years if the global community does not limit its emissions. The above state of affairs illustrates the need for a better and more holistic understanding of how climate change affects countries in the Mediterranean region on the one hand, but also on the many problems it faces on the other, which prevent adaptation efforts. There is also a perceived need to showcase successful examples of how to duly address and manage the many social, economic, and political problems posed by climate change in the region, in order to replicate and even upscale the successful approaches used. It is against this background that the book "Climate Change in the Mediterranean and Middle Eastern Region" has been produced. It contains papers prepared by scholars, practitioners, and members of governmental agencies, undertaking research and/or executing climate change projects, and working across the region.

The IPCC (2007) warned that the Ganges Brahmaputra Meghna (GBM) basin will be at greatest risk due to increased flooding, and that the region's poverty would reduce its adaptation capacity. This book investigates autonomous adaptation using a multi-method technique comprising PRA and a questionnaire survey

applied in the case study area 'Islampur' Upazila in Bangladesh. The study has four key approaches. First, it reviews the flood literature for Bangladesh from 1980 to 2014. Second, it examines farmers' crop adaptation processes in a case study area at Islampur, Bangladesh. Third, it assesses the vulnerability and adaptation (V & A) in response to three extreme flood events (EFEs). Fourth, the book assesses the economic consequences of failure effects of autonomous crop adaptation in response to EFEs. The results show that Bangladeshi farmers are highly resilient to EFEs, but the economic consequences of failure effects of autonomous crop adaptation (FEACA) on marginal farmers are large. The book contributes to current knowledge by filling three important research gaps as follows, 1) farmers' autonomous crop adaptation processes in response to various types of extreme floods; 2) methodological contribution for assessing vulnerability and adaptation through PRA; and 3) the economic consequences of the failure effects of autonomous crop adaptations. "This book provides a good account of 'autonomous adaptation' and its impact on flood vulnerable communities in Bangladesh. Anyone wishing to fully understand the impact of climate change should read the book." Professor Muhammad Yunus, Nobel Laureate, Yunus Centre, Bangladesh

Once ice-bound, difficult to access, and largely ignored by the rest of the world, the Arctic is now front and center in the midst of many important questions facing the world today. Our daily weather, what we eat, and coastal flooding are all interconnected with the future of the Arctic. The year 2012 was an astounding year for Arctic change. The summer sea ice volume smashed previous records, losing approximately 75 percent of its value since 1980 and half of its areal coverage. Multiple records were also broken when 97 percent of Greenland's surface experienced melt conditions in 2012, the largest melt extent in the satellite era. Receding ice caps in Arctic Canada are now exposing land surfaces that have been continuously ice covered for more than 40,000 years. What happens in the Arctic has far-reaching implications around the world. Loss of snow and ice exacerbates climate change and is the largest contributor to expected global sea level rise during the next century. Ten percent of the world's fish catches comes from Arctic and sub-Arctic waters. The U.S. Geological Survey estimated that up to 13 percent of the world's remaining oil reserves are in the Arctic. The geologic history of the Arctic may hold vital clues about massive volcanic eruptions and the consequent release of massive amount of coal fly ash that is thought to have caused mass extinctions in the distant past. How will these changes affect the rest of Earth? What research should we invest in to best understand this previously hidden land, manage impacts of change on Arctic communities, and cooperate with researchers from other nations? The Arctic in the Anthropocene reviews research questions previously identified by Arctic researchers, and then highlights the new questions that have emerged in the wake of and expectation of further rapid Arctic change, as well as new capabilities to address them. This report is meant to guide future directions in

U.S. Arctic research so that research is targeted on critical scientific and societal questions and conducted as effectively as possible. The Arctic in the Anthropocene identifies both a disciplinary and a cross-cutting research strategy for the next 10 to 20 years, and evaluates infrastructure needs and collaboration opportunities. The climate, biology, and society in the Arctic are changing in rapid, complex, and interactive ways. Understanding the Arctic system has never been more critical; thus, Arctic research has never been more important. This report will be a resource for institutions, funders, policy makers, and students. Written in an engaging style, The Arctic in the Anthropocene paints a picture of one of the last unknown places on this planet, and communicates the excitement and importance of the discoveries and challenges that lie ahead.

This volume presents nine chapters prepared by international authors and highlighting various aspects of climate change and water resources. Climate change models and scenarios, particularly those related to precipitation projection, are discussed and uncertainties and data deficiencies that affect the reliability of predictions are identified. The potential impacts of climate change on water resources (including quality) and on crop production are analyzed and adaptation strategies for crop production are offered. Furthermore, case studies of climate change mitigation strategies, such as the reduction of water use and conservation measures in urban environments, are included. This book will serve as a valuable reference work for researchers and students in water and environmental sciences, as well as for governmental agencies and policy makers.

*Climate Change Policies and Challenges in Indonesia
Global Warming*

*Insights from Practitioners' Survey in Bangladesh, Ethiopia, Kenya, and Mali
From Zero to Hero*

*Climate Change, Service Economy and Industry
Development and Implementation*

Climate change and migration are major concerns in the MENA region, yet the empirical evidence on the impact of climate change and extreme weather events on migration remains limited. Information is broadly lacking on how households in vulnerable areas perceive changes in the climate, how they are affected by extreme weather events, whether they benefit from community and government programs to help them cope with and adapt to a changing climate, and how these conditions influence the decision of household members to migrate, either temporarily or permanently. This introductory chapter summarises briefly the main results of the study which relied on existing data as well as focus groups and new household surveys collected in 2011 in Algeria, Egypt, Morocco, Syria, and Yemen. The results suggest that households do perceive important changes in the climate, and that many households are being affected by extreme weather events resulting in losses in income, crops, and livestock. The coping and adaptation strategies used by households to deal with weather shocks are diverse, but also limited, with most households not able to recover from the negative impact of weather shocks. The ability of community level responses and government programs to support households is also very limited. Finally, while climate change is not today the

main driver of migration flows, it does appear to contribute substantially to these flows, so that worsening climatic conditions are likely to exacerbate future migration flows. **Advances in Climate Change and Global Warming Research and Application / 2012 Edition** is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Climate Change and Global Warming. The editors have built **Advances in Climate Change and Global Warming Research and Application / 2012 Edition** on the vast information databases of ScholarlyNews.™ You can expect the information about Climate Change and Global Warming in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of **Advances in Climate Change and Global Warming Research and Application / 2012 Edition** has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at <http://www.ScholarlyEditions.com/>.

• New York Times bestseller • The 100 most substantive solutions to reverse global warming, based on meticulous research by leading scientists and policymakers around the world “At this point in time, the Drawdown book is exactly what is needed; a credible, conservative solution-by-solution narrative that we can do it. Reading it is an effective inoculation against the widespread perception of doom that humanity cannot and will not solve the climate crisis. Reported by-effects include increased determination and a sense of grounded hope.” —Per Espen Stoknes, Author, *What We Think About When We Try Not To Think About Global Warming* “There’s been no real way for ordinary people to get an understanding of what they can do and what impact it can have. There remains no single, comprehensive, reliable compendium of carbon-reduction solutions across sectors. At least until now. . . . The public is hungry for this kind of practical wisdom.” —David Roberts, *Vox* “This is the ideal environmental sciences textbook—only it is too interesting and inspiring to be called a textbook.” —Peter Kareiva, Director of the Institute of the Environment and Sustainability, UCLA In the face of widespread fear and apathy, an international coalition of researchers, professionals, and scientists have come together to offer a set of realistic and bold solutions to climate change. One hundred techniques and practices are described here—some are well known; some you may have never heard of. They range from clean energy to educating girls in lower-income countries to land use practices that pull carbon out of the air. The solutions exist, are economically viable, and communities throughout the world are currently enacting them with skill and determination. If deployed collectively on a global scale over the next thirty years, they represent a credible path forward, not just to slow the earth’s warming but to reach drawdown, that point in time when greenhouse gases in the atmosphere peak and begin to decline. These measures promise cascading benefits to human health, security, prosperity, and well-being—giving us every reason to see this planetary crisis as an opportunity to create a just and livable world.

This book provides a two-level analytical framework and empirical study to analyze the reason and process of China’s transition that is from a follower to driver in the field of global climate governance, and is especially valuable the dialogues and cooperation between the government, media and civil society. Nowadays, China shows strong leadership to push the process of global climate governance. It’s the first and fastest time in the past 40-year history of China’s Opening-up that China wins the international respect and trust in one of the issues of global governance. What experiences can be

summarized? What dynamic situations and new possibilities emerged after Trump, the U.S. president announced to withdraw from the Paris Agreement? How to move forward based on the existing success? This timely book offers new lens for international readers to understand China's effort domestically and internationally in the field of climate change and illustrate the outlook of the climate governance in the frame of win-win co-governance model.

**Climate Change Actor-networks in Oklahoma Secondary Science Education
A Survey**

Introduction to Modern Climate Change

Climate Change and Sub-Saharan Africa: The Vulnerability and Adaptation of Food Supply Chain Actors

Climate Change and Migration

Climate Change in the Mediterranean and Middle Eastern Region

Climate change is not only one of the greatest threats to modern civilization; it is also a great challenge to economic development in the 21st century. Global warming can lead to periods of both drought and intense rain, causing crops to fail and ruining the livelihoods of many in underdeveloped countries. The Handbook of Research on Climate Change Impact on Health and Environmental Sustainability is an authoritative reference source that offers a comprehensive and timely analysis of various aspects of global warming and its consequences. Featuring such topics as assessment of and adaption to climate change, water and its socio-economic impact, the environmental effects of climate change on human health, and the mitigation of climate change on both a local and global level, this expansive handbook is an essential reference source for students, researchers, academicians, engineers, government executives, and other practitioners looking to make a difference in the treatment of our environment. This publication features timely research on subjects including, but not limited to, climate change and its effect on both urbanization and the trade competitiveness of different regions, water-related diseases flourishing due to climate change, health risks and rethinking health service provision, losses from natural disasters, farmers' views on the environment, drought management policies, groundwater resource management, trends in long-term rainfall, fishery management and productivity, preserving biodiversity, and sustainable forest use.

'This is a well researched, thorough and impressive work on climate change and agriculture in Africa. I recommend it to students, researchers and practitioners working on climate change issues' Jabavu Clifford Nkomo, senior programme specialist, IDRC This landmark book encompasses a comprehensive assessment of the potential economic impacts of future climate change, and the value of adaptation measures in Africa for different zones, regions, countries and farm types. Researchers developed and applied multiple analytical procedures to assess quantitatively how climate affects current agricultural systems in Africa, enabling them to predict how these systems may be affected in the future by climate change under various global warming scenarios, and suggesting what role adaptation could play. The study is the first to combine spatially referenced household survey data with climatic data at both national and international levels. This book provides vital knowledge about the impacts of climate change on Africa, serving as a guide to policy intervention strategies and investment in adaptation measures. It makes a major contribution to the analysis of climate change impacts and developing adaptation strategies, especially in the highly vulnerable farming communities in the developing world. Published with CEEPA and supported by the World Bank.

This book presents the preservation principles and the current environmental challenges relating to monitoring heritage sites and buildings under the effects of climate change. It provides a clear overview of conservation action levels and the importance of participation

and cooperation between them, and discusses evaluation and management methods, thermal comfort for the common usages, and conceptual methods for enhancing the built heritage. The research presented employed the “ Zoom In, Zoom Out ” approach for monitoring the Syrian coastal heritage sites threatened by the direct and indirect effects of climate change. Lastly, the book establishes the basic principles and conservation strategies for preserving the coastal heritage sites and buildings. As such, it is a valuable reference resource for researchers, developers, architects, and conservators involved in protecting the architectural heritage in coastal areas. It can also be used as a guidebook on preserving and monitoring built heritage sites at both macro and micro levels.

Despite the findings on global climate change presented by the scientific community, there remains a significant gap between its recommendations and the actions of the public and policy makers. So far scientists and the media have failed to successfully communicate the urgency of the climate change situation in such a way that long-term, comprehensive, and legally binding policy commitments are being made on the national and international level. This book examines the way the public processes information, how they perceive threats and other perceptual factors that have a significant effect on how and to what degree climate change mitigation and adaptation strategies are supported. Understanding public risk perception plays a vital role in communicating the challenges of global climate change. Using a diverse range of international case studies, this book explores the nature of public perceptions of climate change and identifies the perception factors which have a significant impact on the public ’ s willingness to support global climate change policies or commit to behavioral changes to reduce greenhouse gas emissions and improve urban resiliency. The comparative study of social and cultural factors, beliefs, attitudes and trust provides an international overview of best practices regarding the design, implementation and generation of public support for climate change policies at a global level. Offering valuable insight into climate change and risk communication, the book should be of interest to students and scholars of environment studies, politics, urban planning, and media and cultural studies.

2021 WHO health and climate change global survey report

Building resilience and adaptation to climate change in Malawi: Quantitative baseline report

Applying Stated Preferences in the Presence of Uncertainty

Climate Change Adaptation Measures in Vietnam

Climate Change and Agriculture in Africa

Public Perceptions from a New Hampshire Survey

"Carsey Institute researchers, working with the University of New Hampshire Survey Center and the University Office of Sustainability, recently began a new initiative tracking public perceptions about climate change as they change over time. A series of regional surveys ... includes a set of three questions about climate change. Unlike questions on some earlier surveys, the questions in UNH's new survey initiative focus on the central point...: what is happening now - not some time in the future - due to climate change." --P.[1].

The CCAFS Gender and Climate Survey data were collected in 4 sites in Africa South of the Sahara in early 2013 as part of the CGIAR Research Program on Climate Change Agriculture and Food Security (CCAFS) under the project on Increasing Women’s Resilience to Confront Climate Change.² The survey grew out of collaboration, organized by CCAFS, between researchers participating in the program from the International Food Policy Research Institute (IFPRI) and the International Livestock Research Institute (ILRI). The project aimed to enhance

understanding of gendered climate change perceptions, impacts, coping and adaptation strategies, and the constraints to adaptation within selected CCAFS baseline sites in Kenya, Senegal and Uganda. These issues are areas where CCAFS interventions may lead to gender transformative outcomes. Specifically, the survey was designed to answer the following questions: How do men and women perceive climate change and, particularly, the livelihood risks associated with climate change? What are the gender disparities in access to and control over assets and how and to what degree does the disparity in assets affect how men and women experience climate shocks and change? How and to what degree does asset disparity determine how men and women respond to climate shocks and change? Which coping strategies and adaptation options are favored by women and men, respectively, and why? The survey collected detailed gender-disaggregated data on these issues to inform strategies to increase climate change resilience among both women and men farmers. Multiple members of each household were surveyed to capture gendered views and experiences. The data, therefore, offer valuable insights into the ways in which men and women perceive and adopt innovations differently.

GKSS SCHOOL OF ENVIRONMENTAL RESEARCH The National Research Laboratory GKSS (member of the Hermann von Helmholtz-Association of German Research Centres) located in Geesthacht, near Hamburg, is engaged in environmental research. The main interest of the research center focuses on regional climatology and climate dynamics, interdecadal variations in the state of the Baltic and North Sea and related estuaries, and the flow of heavy metals, nutrients, and other materials in river catchments to the coastal zones. This research aims at developing an understanding of changes in the environment, both as a result of internal (natural) dynamics and as a result of anthropogenic interference. In an effort to disseminate the results of these research activities, as well as to initiate a broad discussion among senior scientists in the field, and younger colleagues from all areas of the globe, the Institutes of Hydrophysics and Atmospheric Physics at GKSS have instituted the GKSS School of Environmental Research. Applied environmental research has always contained an element of awareness of the societal implications and boundary conditions associated with environmental concerns. Consequently, the School of Environmental Research adheres to the philosophy that all discussion regarding environmental change should incorporate a social component. This necessity has been well acknowledged and is apparent by the incorporation of social scientists into the series of lectures. Senior scientists from Europe and North America were invited to give lectures to "students" from all parts of the globe.

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influence the decision of household members to migrate, either temporarily or permanently. This introductory chapter summarizes briefly the main results of the study which relied on existing data as well as focus groups and new household surveys collected in 2011 in Algeria, Egypt, Morocco, Syria, and Yemen. The results suggest that households do perceive important changes in the climate, and that many households are being affected by extreme weather events resulting in losses in income, crops, and livestock. The coping and adaptation strategies used by households to deal with weather shocks are diverse, but also limited, with most households not able to recover from the negative impact of weather shocks. The ability of community level responses and government programs to support households is also very limited. Finally, while climate change is not today the main driver of migration flows, it does appear to contribute substantially to these flows, so that worsening climatic conditions are likely to exacerbate future migration flows.

Climate Change Policy

Public Perception of Climate Change

Valuing Climate Change Mitigation

Climate Change and Conservation of Coastal Built Heritage

The Future Health Workforce: Integrated Solutions and Models of Care

Anthropogenic Climate Change

This book describes the iterative steps that were successfully undertaken to develop adaptation measures to climate change in two Vietnamese provinces. The methodology used to develop the scientific basis and the societal agreement of the need to adapt to climate change is applicable also to other regions in Vietnam, Asia and worldwide. The uncertainties of climate change models make it difficult to justify investments to finance protection from uncertain impacts. Setting out with the projected climate change impacts in Vietnam, which is one of the most vulnerable countries to climate change, the book describes a methodological approach to assess and evaluate local vulnerabilities of natural resources to climate change and socio-economic impacts, engaging local stakeholders in the development of locally acceptable and economically feasible adaptation measures. The methodological approach to understand the vulnerabilities and to develop climate change adaptation measures was scenario workshops that supported the communication between scientists and stakeholders. The development of climate change adaptation strategies is nearly state-of-the-art in many countries, but often there is still a large step towards implementing climate change adaptation measures on the local level. The challenge in the development of adaptation measures lies in their acceptability by local stakeholders and decision makers. Climate change adaptation measures also usually demand investments. To understand potential future risks the communication methodology was to first get a good understanding of the natural resources (mainly surface and groundwater) and their potential vulnerabilities (current and future). This was followed by developing a common understanding of current risk patterns, as well as underlying vulnerabilities and hazards. Socio-economic developments have an equally strong, and in the short term mostly even stronger, impact on the living environment and natural resources as long-term climate change impacts. The scenario workshops developed a holistic approach on current and potential future risk patterns, with a special focus on surface and groundwater quantities and qualities, natural hazards and sea level rise. Land-use planning was identified as playing a decisive role in minimizing current and future risks. Finally, first adaptation measures for two Vietnamese provinces were developed and shall be implemented

over the next years. The methodology that led to these adaptation measures shall be applied in other Vietnamese provinces.

This book sheds new light on the limits of adaptation to anthropogenic climate change. The respective chapters demonstrate the variety of and interconnections between factors that together constitute the constraints on adaptation. The book pays special attention to evidence that illustrates how and where such limits have become apparent or are in the process of establishing themselves, and which indicates future trends and contexts that might prove helpful in understanding adaptation limits. In particular, the book provides an overview of the most important challenges and opportunities regarding adaptation limits at different temporal, jurisdictional, and spatial scales, while also highlighting case studies, projects and best practices that show how they may be addressed. The book presents innovative multi-disciplinary research and gathers evidence from various countries, sectors and regions, the goal being to advance our understanding of the limits to adaptation and ways to overcome or modify them.

The thoroughly updated second edition of an invaluable textbook for any introductory survey course on the science and policy of climate change.

'This is a well researched, thorough and impressive work on climate change and agriculture in Africa. I recommend it to students, researchers and practitioners working on climate change issues'

Jabavu Clifford Nkomo, senior programme specialist, IDRC

This landmark book encompasses a comprehensive assessment of the potential economic impacts of future climate change, and the value of adaptation measures in Africa for different zones, regions, countries and farm types. Researchers developed and applied multiple analytical procedures to assess quantitatively how climate affects current agricultural systems in Africa, enabling them to predict how these systems may be affected in the future by climate change under various global warming scenarios, and suggesting what role adaptation could play. The study is the first to combine spatially referenced household survey data with climatic data at both national and international levels. This book provides vital knowledge about the impacts of climate change on Africa, serving as a guide to policy intervention strategies and investment in adaptation measures. It makes a major contribution to the analysis of climate change impacts and developing adaptation strategies, especially in the highly vulnerable farming communities in the developing world. Published with CEEPA and supported by the World Bank.

Emerging Research Questions

Climate Change Mitigation and Adaptation—ZEMCH 2016

Climate Change and Water Resources

Insights to Key Questions about Climate Change

Policy and Communication

The Most Comprehensive Plan Ever Proposed to Reverse Global Warming

Building Resilience and Adaptation to Climate Change (BRACC) is a five year program whose main objective is to strengthen the resilience of poor and vulnerable households to withstand current and future weather and climate-related shocks and stresses in four districts in Southern Malawi: Balaka, Chikwawa, Mangochi and Phalombe. Resilience is operationalized as the ability of households to smooth consumption in response to shocks and stresses. This baseline report introduces the evaluation context and describes the BRACC program, details the evaluation design, summarizes main findings from the baseline household survey, and tests whether the randomizations successfully balanced baseline observable characteristics across the treatment arms. The adverse effects of climate change and climate variability have become some of the biggest environmental and socio-economic challenges for society, and for food supply chain actors, in particular. Serving as a serious inhibitor to the attainment of food

security, climate change poses a fundamental threat to the availability, accessibility, stability and utilization of nutritious food and quality drinking water. The threat of this global phenomenon is not only apparent from the difficulties faced by all food supply chain actors, but is also felt acutely by households dependent on semi-subsistence agriculture. As evidenced by numerous studies conducted by the academic community, governmental and non-governmental organisations, climate change and climate variability will have disastrous effects on entire food supply chains across the world. This edited volume looks to address: How vulnerable are food supply chain actors to climate change and climatic variability? What adaptation strategies are they adopting? How is the resilience of food supply chains being supported? Are they being financed and/or supported by international organizations to cope with climate change? And what governmental support are they receiving to help cope with climate change? This book is an essential resource for students, lecturers, researchers, agribusinesses, marketing firms, agricultural institutions, climate change adaptation institutions, policymakers and many others with an interest in agricultural development and the global food industry. This book analyses the links between climate change adaptation, resilience and the impacts of hazards. The contributors cover topics such as climate change adaptation in coastal zones, the evaluation of community land models, climate change considerations in public health and water resource management, as well as conceptual frameworks for understanding vulnerabilities to extreme climate events. The book focuses on a variety of concrete projects, initiatives and strategies currently being implemented across the world. It also presents case studies, trends, data and projects that illustrate how cities, communities and regions have been striving to achieve resilience and have handled hazards.

This book demonstrates the challenges and opportunities of climate change actions in developing countries and primarily focuses on case studies in Indonesia, the world's fourth most populous country. The most important feature of the book is its examination of multiple facets of climate change issues in Indonesia, which allows readers to understand the complexity of climate change in developing countries: the synergies and trade-offs between different climate change actions as well as between climate and development priorities. Another unique feature is that it was jointly written by Indonesian and international authors, as well as by academics and development practitioners. This book addresses questions concerning mitigation measures in major sectors with original analyses of aspects including energy subsidies, sectoral energy efficiencies in manufacturing sectors, forest concessions, energy-saving labeling schemes, policy mixes for the urban transportation sector, and the introduction of waste-to-energy technologies. The book provides first-hand knowledge and data on energy and the institutional realities in Indonesia, which are not widely and readily available to an international audience. It offers a valuable reference guide for professionals working for governments and NGOs and donor agencies in the fields of climate change and development in developing countries. This work is also a valuable resource for undergraduate and graduate students of economics and environmental and development studies, in particular those who are interested in the synergies and conflicts between climate change and development.

Social Research Methods

Processes, Assessment and Effects

Climate Change and the Role of Education

Organizational and Institutional Issues in Climate Change Adaptation and Risk Management

Human Perceptions, Impacts, and Responses

Public Awareness of Carbon Capture and Storage

Text accompanied by a companion web site.

This enriching book presents a holistic overview of climate change uncertainty and offers a number of pathways that could be used to account for such uncertainties in the stated preference valuation research. It shows that uncertainty plays an important role in determining the values of climate change mitigation benefits and, as the authors say, 'If this uncertainty remains unaccounted for, there is a potential danger that the estimated economic values will misrepresent social preferences for public policy interventions to manage environmental externalities.' Valuing Climate Change Mitigation discusses the role of uncertainty in valuing the benefits of climate change mitigation policies using contingent valuation and choice experiments techniques. It treats climate change using three dimensions of uncertainty: scenario, policy and preference. Conceptual frameworks are advanced to account simultaneously for these various dimensions of uncertainty. The authors then explore the impact of introducing these uncertainties into benefit estimates for the Australian Carbon Pollutions Reduction Scheme. The authors present frameworks to account for multiple uncertainty in environmental decision analysis that will prove invaluable for academics and students in the fields of environmental economics and management. Policy makers will also gain invaluable methodological insight.

Psychology and Climate Change