Introduction

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This book is motivated by the simple hope that the cloud of the global financial crisis may yet have a silver lining. In short, we hope that political leaders as well as economists and management scholars might seize the opportunity to reflect critically on the assumptions, practices, and infrastructures that have precipitated the crisis, and thereby to imagine and enact new conceptual models as well as new forms of organization that sustainably enhance the well-being of all global stakeholders.

We must admit, however, that this hope has been dampened somewhat by the reactions of world economic political leaders and the economics community since the crisis began several years ago. Leading economists—including Alan Greenspan, and the British Economics Association, in response to the queen—have acknowledged that they did not anticipate the crisis or understand exactly how and why it could have happened. One after another, sovereign leaders as well as industry titans have sought to restore their national economies and marketplaces to some semblance of their precrisis conditions by relying on political and economic strategies that are grounded in that same blind spot. These strategies, and the arguments through which they are advanced in public discourse and policy, rest on a set of basic assumptions that must be subjected to critical scrutiny, lest the seeds of the next crisis be sown precisely in the market stabilization policies themselves.

Raising Basic Questions

According to the prevailing narrative, the global financial crisis originated in the U.S. real estate and financial sectors in the first few years of the twenty-first century. The failures of the financial icons Lehman Brothers and Merrill Lynch in September 2008 were the highest-profile manifestations of crisis onset. Within two months, more than an estimated $10 trillion, fully 40 percent of the wealth in the global financial markets, had been lost. The U.S. economy went into a deep recession and pulled other interdependent economies with it. Over the past two years, desperate attempts have been made to revive economies, stabilize markets, bolster financial regulations, and shore up near-bankrupt banks and financial companies. Despite huge infusions of cash by governments, the economies of many nation-states continue to face tremendous pressures. Iceland declared bankruptcy in 2009; Greece was bailed out by Germany in 2010; and as we write, Spain, Portugal, Ireland, Italy, and Hungary all find themselves in dire economic straits. The current financial crisis is clearly not over yet, and there are compelling reasons to believe that it may intensify and spread to other regional economies and industry sectors in the coming years.

In this light, a series of very basic questions remain unanswered. What exactly was the process through which the crisis emerged? What were its causes? What are its consequences? Could it have been avoided? How can it be managed? What can companies and governments do about it? What kinds of organizations and economies do we need to create to resolve the crisis and avoid similar crises in the future? What kind of leadership do we need to raise and collectively address these difficult questions?

As noted above, these questions are commonly answered by economists and financial experts in ways that do not involve or require any critical reflection on underlying ontological, epistemological, and ethical assumptions. For example, "market stabilization" and "containment" solutions have proliferated around the world over the past two years. In the United States alone, the range of proposed solutions included the bailout of banks (valued at $900 billion), an increase of the money supply ($1 trillion), government purchase of short-term commercial paper ($700 billion), and short-term loans by the Federal Reserve Bank to money-market mutual funds ($500 billion), totaling about $3 trillion by the end of 2008. Similarly dramatic measures have been taken by government-run central banks around the world, including in the United Kingdom, China, European Union, and the United Arab Emirates.

For example, in October 2008, the EU "directive on credit guarantees" was modified to safeguard all deposits. Dozens of European and U.S. financial companies have been bailed out with government funds (e.g., BNP Paribas, Northrock, AIG, Goldman Sachs). Hungary, Latvia, and Romania have received loans totaling €25.5 billion, €7.5 billion, and €20 billion, respectively, from the International Monetary Fund, the World Bank, and the European Union. Finally, all major economies, including the United States and the European Union, have issued new regulations on transparency and risk management in the financial services industry. It is only the most superficial irony that such measures have under other circumstances been derided as socialist or communist, as pertaining more appropriately to planned economies than to liberalized market economies.

As economists and finance experts struggle to put the Humpty Dumpty of the global financial system back together, we suggest humbly that the sources of knowledge that guided the design and operation of those same markets may be insufficient to the task. Indeed, the open question—currently being debated as we write—concerning the potential value of regulatory oversight in the derivatives markets seems relatively simple to resolve compared to the deeper questions concerning the systemic risk involved with a globalized financial system. Not only does the neoliberal Washington consensus on the merits of privatization and deregulation seem suddenly inadequate, but commonly accepted assumptions concerning the scope and exercise of national sovereignty, the balance of public and private interests, and the capacity of economic actors to act rationally on the basis of available information must be critically reevaluated in light of the current crisis.

Moreover, the challenges confronting the evolution of the global political economy go beyond the concepts and methods associated with the academic discipline of economics. The economy of the future will increasingly have to be designed to contend with limitations and constraints associated with the physical situation of the earth. Physical and biological ecosystems that provide the basis for all economic value creation are already under severe pressure, disruption, and outright extinction. These phenomena include depleting oil reserves, overharvesting of forests and fisheries, loss of agricultural land, loss of biodiversity, and polluting emissions at the root of global climate change (Worldwatch Institute 2007; Brown 2006; Brown and Carver 2009). And beyond ecological constraints, the future global economy will also need to contend with the rampant poverty and social inequity that threaten political stability (Thorbecke and Charumilind 2002). The current situation in which nearly 4 billion people live on less than \$10 per day, and nearly 1 billion live on less than \$1 per day, is simply untenable. What will happen to these economic systems, and to the ideologies that frame our management of these systems, if current demographic forecasts come true and 9 billion people live on the earth within the next thirty years? Today already, even the core supporters of the past economy, the 40 percent in the so-called middle classes, are stagnating at 1970-level living standards (Baker 2007). Indeed, as income disparities widen in the United States, how much longer will government and business leaders be able to muster the political will to support business as usual on Wall Street?

More broadly, should we struggle to re-create an economy with easy credit, high debt, and leverage? Should we re-create an economy where the ecological footprint is wildly unsustainable? Should we continue in the ideology of untrammeled "growth" without concern for the optimal size of the economy and the equitable distribution of wealth?

Articulating New Responses

This volume originated not in a coherent, theoretically grounded response to these basic questions but in a conviction that there must be other sources of knowledge from which to draw. Provocatively put, political questions about the global economy are too dangerous to be left exclusively to either economists or politicians. Our attempt to mitigate this risk by integrating other voices into the dialogue about the principles that will guide the design of the future economy rests on three basic premises.

The first premise is that the global financial crisis shows the limits of very specific and very pervasive metaphysical and epistemological assumptions that reduce the complexity of organizational (and economic) life, zero out the richness of lived experience in production function equations, and ultimately engender more quantity rather than better quality. These assumptions function at an individual and intersubjective level as constraints on the possibilities for thought and action. They beg for philosophical and aesthetic critique and for a renewed understanding of economies and organizations that includes emotional and somatic dimensions of human experience.

The second premise is that at the heart of the financial crisis is the issue of failures caused by lack of organizational and institutional resilience and reliability. In more than twenty years of research on high-reliability systems and crisis management, organizational scholars have accumulated a large amount of knowledge about regulation, surveillance, preparedness, risk management, safety in depth, rescue and emergency response, crisis communication, and conflict resolution. These principles, systems, and structures give shape and meaning to group-, firm-, and industry-level organizational phenomena, and they are relevant to the global financial crisis.

The third premise is that past levels of excessive credit and leverage, overconsumption by a few, and unfettered economic growth are not physically viable nor morally justifiable. There is growing research on the global ecological situation and the need for sustainability at the enterprise level and the economywide level. We need to build toward sustainable and equitable development appropriate for the world's 6.7 billion people.

Working from these basic premises, we seek to develop responses to the crisis that are creative, reliable, and sustainable. Rather than drawing on traditional source theories from economics, finance, organizational theory, and political science, this volume draws on arts and aesthetics, crisis management, and sustainability studies. Again, we do not intend to present this grouping of alternative approaches as a fully integrated set of theoretical propositions. Instead, we present the volume as a provocation to engage in inter- and multidisciplinary dialogue.

There is a huge reservoir of human creativity in the arts and aesthetics, but this source has remained almost entirely untapped by politicians, economists, and business leaders because of metaphysical and epistemological assumptions about how knowledge is and should be developed. Similarly, as the complexity of organizational life has intensified in recent years, so, too, has the potential for multiple types of failures, including human errors, misjudgments, equipment and materials failures, policy and regulatory failures, infrastructure failures, and so on. An interest in practical wisdom (Statler and Roos 2006) has developed among practitioners as well as academic researchers around these problems, but the lessons that have been learned have not yet been integrated into the overall considerations about how to design and manage economies. Finally, a diverse community of scholars and innovative practitioners have long recognized that the design of economic systems is not just about managing financial outcomes but about managing equitable financial and economic evolution under conditions of extreme ecosystem stress, using human creativity and organizational resilience. And yet the challenge of sustainable development has only begun to be addressed seriously by mainstream political economists, and the potential of human creativity to build new fulfilling relationships with nature (Brown and Carver 2009) remains untapped.

By seeking insights from these three disciplines, we hope to foster a dialogue among economics and finance experts about alternative solutions to the global crisis. This attempt is hardly as radical as it may seem—indeed, the economy is anchored in natural ecosystems and inextricably linked to them. From a design perspective, the purpose of any economy is to fulfill human needs within the constraints of natural ecology. In this light, the appropriate size of the global economy has to be pegged to the earth's capacity to sustainably produce and reproduce goods and services. To be truly sustainable, the value generated by the exchange of those goods and services must be distributed equitably among stakeholders, including present and future generations, as well as the millions of other species that inhabit the earth.

In this light, the practices associated with art and aesthetics, crisis management, and sustainability may provide intellectual as well as emotional resources that support the design and management of future economies and organizations.

Structure of the Book

The subtitle of this volume—"Creatively, Reliably, and Sustainably"—serves as an organizing structure for the various contributions. The basic logic behind this structure is a progression of scale from the microlevel issues that pertain to individuals and teams who act creatively to the mesolevel issues that pertain to the structures, practices, and processes associated with reliable organizations, and to the macrolevel issues that pertain to the interdependent ecological systems that are sustainable in various contexts and over time.

We recognize that these distinctions exist to facilitate the analysis of phenomena that, in practice, remain difficult, if not impossible, to separate. And yet we believe that together they emphasize the importance of developing holistic responses to the financial crisis that do not attempt to solve a relatively local problem while ignoring other problems that may exist in other localities or at the level of the entire global system.

The three sections each contain full-length chapters exploring key issues in depth as well as shorter commentaries that focus on more practical issues. This structure serves to create a textured discourse, and it also offers a reality check on the chapters and extends the appeal of the book to practitioners.

Creatively

In “Truth, Beauty, and the Financial Crisis: Evaluating What Works,” Robert Richardson and Matt Statler take as a point of departure the claim made by the Nobel laureate Paul Krugman (2009) that the global financial crisis resulted from a confusion among economists who have allowed their own appreciation of the beauty of theoretical models to cloud their judgment about the truth of those models. Although organizational theorists have considered the relationship between truth and beauty periodically over the years, few attempts have yet been made to take stock of and integrate the debates among contemporary philosophers about the distinction between facts and values (see Putnam 2002). In this chapter, Richardson and Statler trace out the history of these philosophical debates, seeking to develop a pragmatic theory of meaning that has general implications for organizational theory and specific implications in view of the ongoing financial crisis.

In “Aesthetic Leadership: Walking Toward Economic Recovery,” Ralph Bathurst and Margot Edwards explore the idea of communitarian artistic co-creativity and partnership as a means of addressing the global financial crisis. Beginning with the notion that an excessive emphasis on instrumental rationality and economic growth has resulted in an unsustainable contemporary situation, they explore the potential for leadership practice that is demonstrated by aesthetic engagement between “self” and “other.” Specifically, they focus on the aesthetic practices demonstrated by the Maori artist Peter Robinson and the Detroit-based artist Tyree Guyton, who engage in dialogic art that helps create community by provoking critical reflection. They close by inquiring into how this dialogical notion of leadership might be applied to the situation currently faced by U.S. President Barack Obama and the chair of the U.S. Federal Reserve Bank, Ben Bernanke.

In “Smashing Moneytheist Mirrors: How Artists Help Us Live with Financial Schizophrenia,” Pierre Guillet de Monthoux reflects critically on what he refers to as moneytheism, an ideology that represents the world in exclusively financial terms and reduces the value of human life to matters that can be measured in terms of money. He explores art and aesthetics as an alternative approach to value, focusing on insider artists who work within organizational and economic systems and seek using gestures and provocations to open up new public spaces for dialogue and experience. The chapter closes with an illustration by artist Michelangelo Pistoletto, who staged a performance at the

2009 Venice Biennale in which he used a sledgehammer to smash a number of huge mirrors hung in gilded frames.

In the provocatively titled "Hence God Exists," Skip McGoun offers a historically anchored and trenchant critique of the mathematization of finance and its disastrous consequences. He suggests that beginning in the first quarter of the twentieth century and continuing to date, mathematics has moved from being a tool of analysis to being an end in itself. Finance research and practice uncritically use mathematical models to ineffectively represent reality, which leads to false and ideologically biased conclusions. He argues that mathematical equations are not axiomatic laws but rather interpretive metaphors. They are not the truth, although they may express useful ideas. The finance profession needs to recognize the limits of mathematics and the metaphors that have been used to implement mathematics in the management of financial systems.

In "The Art of Finance," Steven S. Taylor picks up this thread and introduces a distinction between art and craft to reflect on the practices associated with accounting and finance. Where craft involves the use of skills in an established process to produce a desired result, art involves engaging the senses as well as the imagination to depart in a new direction. Viewed in this sense, the creation of financial derivatives appears as a form of art, albeit one that has become unmoored from its material and ethical ground to an extent that it has invited both academic critique and moral condemnation. Taylor argues that unless finance can embrace its own roots as a craft that produces sustainable growth for societal stakeholders, we have learned nothing from the crisis.

In "The Play Ethic and the Financial Crisis," Pat Kane considers how bankers and traders have placed the infinite game of creative innovation in the service of the finite game of winner-take-all shareholder capitalism and points out that the increased importance of regulators and arbiters in sports as well as finance is driven by a similar tendency to innovate beyond the application of existing rules. Whereas free-market advocates have tended to rely on game theory and complex adaptive systems theory to justify the evolutionary creation and destruction of specific organizational and institutional forms, Kane raises a series of questions about the ground of play in embodied, materially potentiating human beings. Indeed, what is the healthiest arrangement between the free play of financial speculation and the rule-based structure of financial regulation for human life? In response to this question, Kane frames stakeholder capitalism in terms of the Danish phrase *leg godt* (good play), which he interprets as "sharing nicely."

In "Cassim's Law," the Berlin-based artist and management scholar Henrik Schrat presents an account of what he calls Cassim's law, referring to Ali Baba's brother in the classic fable, who greedily escalates a situation until it extends beyond his own understanding and ends up chopped into pieces by thieves. On Schrat's reading of the crisis, it is not sufficient to cast the bankers as thieves; instead, we must reflect on greed as such, on consumerism, and on the counting imperative that drives us all to want more and more over time. Schrat recalls the notion articulated by the Austrian economist Wilhelm Ropke that moral reserves must be built up in areas such as the environment and the family to counterbalance the rapacious tendencies that market systems tend to unleash. But ultimately, Schrat argues, following Georges Bataille, that the crisis exemplifies a kind of potlatch in which cosmic energy is expended catastrophically, and the captains of the financial industry as well as the small-time investors and market participants literally expend themselves in tragedy.

Reliably

In "Managing the Global Financial Crisis: Lessons from Technological Crisis Management," Paul Shrivastava, Bill Gruver, and Matt Statler take lessons from the past thirty years of research on technological crisis management and apply it to the current global financial crisis. They illustrate parallels and similarities in technological and financial crisis antecedent conditions, crisis causes, and prevention and management strategies. They suggest policies for mitigating the impacts of financial crisis, including long-term planning for managing the crisis process, regulating risk and leverage, building surveillance systems, improving global communications, and redesigning a new sustainable global economic order.

Nathaniel I. Bush, Peter F. Martelli, and Karlene H. Roberts, in their chapter "Failures of High Reliability in Finance," examine the deep organizational problems in the culture and tools of high finance that limit reliable performance only within a very narrow set of system conditions. They suggest that overspecialization, control and conformity, insensitivity to unknown risks, and lack of flexibility in response contribute to systemic failures in the financial services industry. To prevent future systemic breakdowns, they recommend process auditing, long-term-oriented reward systems, monitoring of quality, multiple (and even conflicting) perspectives on risk assessment and mitigation, redundancy in auditing systems, and training on high-reliability issues.

Ian I. Mitroff and Can M. Alpaslan, in "Wrong Assumptions and Risk Cultures: Deeper Causes of the Global Financial Crisis," examine the incorrect assumptions and risk cultures that are the deep and hidden root causes of the financial crisis. They argue that the crisis was caused not simply by technical economic and regulatory failures but rather by the unconscious psychological assumptions and cultural assumptions prevalent in financial companies and financial markets. These assumptions are reductionist and incomplete in portraying human motivation reduced to self-interest, complex human emotions reduced to fear and greed, all available information about asset values reduced to market prices, and all information about the riskiness of assets reduced to asset price volatility. Such obsessive reductionism created a fatally flawed approach to defining and measuring risk, and eventually led to the failure of risk management. As a solution, they propose moving financial companies from a culture of risk, selfishness, and narcissism to a culture of trust.

Michael Berkowitz, in "A Busy Decade: Lessons Learned from Crisis Planning and Response from 1999 to 2009," presents an account of the lessons that have been learned from the past decade of practice in the field of crisis management. This discipline, which in organizational contexts often focuses on operational risks, has undergone a series of significant transformations in response to the rise of global terrorism as well as the myriad threats associated with flu pandemics and climate change. Berkowitz was working for the New York City Office of Emergency Management on September 11, 2001, and he subsequently transitioned into the private sector, where he currently serves as the director of business continuity and crisis management for Deutsche Bank in Asia. He focuses his chapter on the tension between all-hazards and hazard-specific protocols, on the relevance of testing the crisis management system on low-grade incidents, and on the importance of communications. These lessons appear generically applicable to the ongoing management of the global financial crisis, although it remains to be seen whether functional crisis management systems can be built across institutional and national boundaries within the financial markets, much less in other markets.

Brett Messing, in "A Critique of Managing the Global Financial Crisis: Lessons from Technological Crisis Management," provides an insightful critique of the comparison of financial and technological crises. He goes further into exploring the ultracomplexity of some trading businesses, such as debt securitization and derivatives. These, he explains, have evolved in complexity beyond the understanding of risk managers and bank chief executive officers. He suggests that transparency into the balance sheets of investment banks can lead to a more optimal capital structure that is better equipped to handle financial market meltdowns.

Sustainably

Perry Sadorsky's chapter, "Green Financing After the Global Financial Crisis," focuses on the critical topic of green financing. This type of financing (often part of the stimulus spending) is increasingly necessary for the world economy to move toward sustainability. He examines four economic recovery scenarios (U-shaped recovery, V-shaped recovery, stagflation, and deflation) and the impacts that each of these scenarios will have on the future of green financing. Some countries are seeing stimulus investing as an opportunity to morph into sustainable economies. South Korea, for example, has devoted 20 percent of its stimulus spending to environmental measures and thus has the greenest fiscal stimulus package.

Aida Sy and Tony Tinker, in "Leveraging Ourselves out of Crisis—Again!" frame the ongoing crisis as only the most recent instantiation of a recurrent phenomenon, a flaw that is intrinsic to capitalist economies that encourage leveraged speculation. They identify three contradictions that consistently jeopardize the process of growth through which capital is accumulated: the falling rate of profit, the need to dispose of overproduction, and the concentration and centralization of capital. Most poignant, they argue that the stabilization strategies that have been employed to mitigate the current crisis have not only deferred the impacts but also have increased the potential for systemic risk and thus increased the likelihood that other "time bombs" will soon implode, especially in nations such as Switzerland, where bank leverage vastly exceeds the gross domestic product.

Andreas Georg Scherer and Emilio Marti, in their chapter "The Normative Foundation of Finance: How Misunderstanding the Role of Financial Theories Distorts the Way We Think About the Responsibility of Financial Economists," provide a trenchant critique of how financial economists have misunderstood the role of financial models and abdicated their intellectual responsibilities. They draw on the philosophy of science to clarify these responsibilities to include critical reflections on the problems of practice and closely tie theories to practical problems. In pursuing the widely adopted, largely abstract efficient market hypothesis, based on unrealistic assumptions, financial economists have largely neglected this responsibility.

Mark Starik, in his chapter "A Multilevel, Multisystems Strategic Approach to a Sustainable Economy," analyzes the recent global financial crisis at these levels, focusing on natural environment-related inputs, processes, and outputs. He also explicates other systems-oriented phenomena at each level to provide a holistic systems framework for understanding the financial crisis and its connections to sustainability. This permits a more comprehensive analysis of crisis causes and necessity of multifocal solutions that include residential, commercial, industrial, and institutional investments in improving the quality of air, water, land, and other natural resources. He argues for greater emphasis on eating lower on the food chain, for both human and natural environmental health benefits, both of which may have long-lasting financial effects.

In "The Global Financial Crisis: A Perspective from India," Murali Murti and N. V. Krishna focus their analysis on resilience to the global financial crisis based on experiences of the Indian economy. Through assessment of commonly used measures such as gross domestic product growth rate; unemployment rate; fall in property values; value destruction of financial assets; current account deficits; and the failure of institutions, corporations, banks, and so on, they consider the relatively high resilience of the Indian economy (as compared to that of the United States and Europe). In this resilience lie some lessons. They include high savings rate and lower credit exposure, a strong regulatory framework and an effective central bank responsible for monetary policy, policy emphasis on stability rather than growth, and lowering of economic dependence on exports. Although these lessons may not be applicable universally, they contain kernels of wisdom that many developing countries can implement in building economic resilience.

Opening a New Conversation

The Chinese symbol for crisis has two characters that signify both danger and opportunity. Hard as it might be to imagine at this time, the ongoing global financial crisis is also an opportunity to conceptualize and reach global consensus around the principles that can guide the design and operation of financial systems that can truly contribute to the well-being of all participants in the global economy.

The book raises some fundamental questions about how to reconstruct the global economy from multiple disciplinary perspectives. We don't have any clear and definite solutions. Our goal is to gather and present these perspectives in the hopes of provoking a conversation in response to vital questions about how to re-create the global economy. It is this conversation—engaging managers, employees, customers, and the public at large—that can develop local solutions to global challenges. We hope these chapters will open up a vibrant and much needed dialogue that breaks down the conventional disciplinary silos and bridges the academic–practitioner divide.

Pragmatically, the book includes lessons for managers working in a broad range of industries affected by the global financial crisis, including financial services, insurance, real estate, infrastructure, economic development, and so on. The book also contains ideas for shaping economic and financial policies and regulations that can be used by policy makers, including members of executive and legislative branches of local, regional, and national governments, as well as national and international regulatory agencies. The book also contains a set of provisional strategies that managers and affiliates of third-sector organizations, including nonprofits, activism groups, and associations can use to address the impacts of the global financial crisis through direct service and/or advocacy. Finally, the book provides managers of organizations already engaged in practices associated with the three source disciplines (i.e., arts and aesthetics, sustainability, and high reliability and crisis management) with new responses to the basic questions that arise in view of the future of the global economy.

The global financial crisis is also a global financial opportunity. But the opportunity is not for some countries to rush back to the growth economics of the past. It is not in uncritically building resource- and energy-intensive, wasteful consumer societies. The opportunity is to rethink creatively the parameters of a globally sustainable economy. Such an economy will limit the size and scale of its eco-footprint. It will provide work opportunities that effectively use the creative potential of human resources. It will have organizational and social systems that offer high reliability and deep resilience. The chapters in this book open up a new series of possibilities to develop that future economy, and we hope that they move readers to experiment and transform their own lives and organizations in ways that are creative, reliable, and sustainable.

References

Baker, Dean. 2007. *The United States since 1980*. Cambridge: Cambridge University Press.

Brown, L. 2006. *Plan B 2.0: Rescuing a planet under stress and a civilization in trouble.* Washington, D.C.: Earth Policy Institute.

Brown, Peter G., and G. Carver. 2009. *Right relationship: Building the whole earth economy.* San Francisco: Berrett-Koehler Publishers.

Intergovernmental Panel on Climate Change. 2007. *Fourth synthesis report.* Geneva: IPCC.

Statler, M., and J. Roos. 2006. Re-framing strategic preparedness: An essay on practical wisdom. *International Journal of Management Concepts and Philosophy* 2 (2): 99–117.

Stern, N. 2006. *The Stern review on the economics of climate change.* London: HM Treasury. http://www.hm-treasury.gov.uk/sternreview_index.htm.

Thorbecke, Erik, and Chutatong Charumilind. 2002. Economic inequality and its socioeconomic impact. *World Development* 30 (9): 1477–95.

Worldwatch Institute. 2007. *State of the Earth report.* Washington, D.C.: Worldwatch Institute.