

## **DANGEROUS YEARS: CLIMATE CHANGE,**

**The Long Emergency, and the Way Forward**

**David W. Orr**

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To anyone who has been paying attention to the mounting evidence of climate change and planetary destabilization, David W. Orr's book comes as no surprise. Orr, a leading environmentalist, is the Paul Sears Distinguished Professor of Environmental Studies and Politics Emeritus as well as a senior advisor to the president of Oberlin College. He is the author of eight books, a founding editor of the journal *Solutions*, and the founder of the Oberlin Project, a joint venture in the City of Oberlin working towards creating a thriving, resilient, and sustainable community.

Orr has been sounding the alarm on climate change for decades while devoting his entire career to the issues of sustainability and education. The central theme of the book is that this period of rapid climate destabilization is simply the manifestation of deeper systemic and structural problems embedded in our economy, politics, education and philosophy. In this book, Orr rallies the call for a radical approach of reform that is required in our governance, economy, and education for us to have any hope for the planet to recover from the political, economic, and social impacts of current climate crisis in the coming years.

In the prologue, Orr cautions the reader that the journey to sustainability will be a long and arduous transition through uncharted territory. Although humans will face challenges of immense scale and complexity, Orr believes that "with foresight, hard work, and luck, it could also be a story about the transition to an ecologically sustainable world" (p. xvii). In chapters 1 and 2, Orr points out climate change and ecological deterioration, nuclear proliferation, and artificial intelligence as three inextricably linked challenges to the long-term viability of human civilization. However, he argues that the climate emergency poses the biggest and the most urgent challenge to sustainability as it will magnify each and every political, ecological, and economic problem.

In Chapter 3, Orr introduces the need for resilience to create sustainable systems which are able to make ongoing adjustments to changing conditions. Resilience could be easily integrated in the economy, urban systems, electrical grids, and other infrastructure via technological solutions and design. However, he emphasizes that the real challenge lies in improving the resilience by tackling and reforming deeper structural issues of governance and political

processes. In Chapter 4 “The Problem of Denial”, Orr laments how we have failed to act given the overwhelming evidence on the magnitude and severity of planetary destabilization and the impending crisis that lies ahead. The web of climate denial laid out by entities with large stakes in fossil fuel industries has sown confusion regarding climate change. Orr adds that “we have so far failed to act in ways commensurate with the scale and projected duration of the crisis and the extent of death and suffering further procrastination will cause” (38). At the same time, Orr also raises concern about strategies that offer delusional optimism that evade the harsh long-term consequences and realities of climate destabilization.

In Chapters 5 to 8, Orr details the shortcomings of the current economic system, governance, educational system, and philanthropic giving, and the systemic changes necessary in these areas to tackle the planetary emergency. In Chapter 5 “Economy”, Orr details the historical roots of the current mainstream neoclassical economic theory and discusses why it is flawed and hence unsustainable given that it is divorced from biophysical reality and principles. This economic model was built “on the foundations of self-interest not sympathy, individual desires not public interest, private wealth not commonwealth, and the present not the future” (46). It has adopted assumptions of endless growth and infinite substitutions for resources on a finite planet. Orr also defines the role corporations have played in laying the political and legal foundations for an industrial-extractive economy, particularly in the case of fossil fuels. Orr calls for a version of economic theory which is more closely grounded within the principles of ecology and seeks to preserve the basic rights of present and future generations. In particular, he recommends that the current economy must conform to the larger system which takes into account limits to unchecked growth and externalities to reflect the full costs of human activities. Orr also urges the need for our economy to be non-violent by diverting current extractive resource practices in favor of more nonviolent and natural methods.

In Chapter 6 “Governance”, Orr discusses the lack of action by governments in Western democracies in tackling the climate crisis. He views the crisis as “a massive political and governmental failure” (77). He states that “climate change is the perfect problem: scientifically complex, politically divisive, economically costly, and morally contentious” (77). Orr explains that a main part of this problem stems from how the regulatory power of governments in improving public goods and services has been diminished in recent decades in favor of corporations, market, and financial institutions. He is also critical of the lack of creativity, action, or capacity shown by governments at the scale and complexity required in dealing with systemic problems owing to climate destabilization. In the context of the United States, Orr details the flaws of the U.S. Constitution in how it does not provide a strong foundation for federal environmental protection law, while giving too much power to private rights as opposed to public goods. Despite the limitations of the government to manage the challenges ahead, Orr argues that a strong, transformed democracy remains our best hope for governance during this long emergency. This climate crisis requires a properly led and funded government with participatory democracy of its engaged citizens that demands collective action on an unprecedented scale.

In Chapter 7 “Mind”, Orr reminds us that our contemporary model of education, which is only offering skills for a job market fitted for an industrial-technology world, is inherently

incapable of training the coming generations to be caring stewards of the planet. A sustainable global civilization is only possible with an education that prepares the younger generation for planetary emergency and connects learning with appreciation of the natural world and its physical system. The greening of higher education has mostly been successful and transformative in reducing energy, water, and material waste in physical infrastructures and buildings across educational institutions. However, Orr suggests that only a transformed liberal education and curriculum that is reflective and thought-provoking can reform the current educational model if “education is to play a positive role in a ‘Great Turning’ toward a sustainable global civilization” (104). Orr’s proposed solutions include the need for colleges and universities to be fertile grounds for institution-wide conversations on complex questions beyond the conventional silos of thought and research, to become a learning organization by which they become more responsible and sustainable, and to graduate students who are ecologically literate. In Chapter 8 “Heart”, Orr criticizes the response of foundational grants and programs that have vastly ignored the enormity of the issues stemming from climate destabilization. Although they may have the right intentions, he argues that the efforts necessary to confront the current climate crisis lacks priority among philanthropic networks. In Orr’s view, true philanthropy is one that requires good judgment and investigation, protects the natural systems, and provides stewardship to secure the planet for future generations.

In Chapter 9 “The Long Revolution”, Orr details the required knowledge for the long transition as we head into this period of climate destabilization. Owing to the multidimensional nature of this crisis, Orr’s proposed solutions also include a multi-pronged approach of rapid expansion of renewable energy, educational reform, competent governments, and ecological governance. However, all of this is only possible with what he calls a metanoic transformation “by which we come to our senses causing a tectonic shift in moral consciousness” (149). At the societal scale, he envisions slow tectonic shifts in thought and behavior “until they spark social movements and revolutionary behavioral and political change” (163). Orr also reviews some of the major challenges governments will face in the long emergency which will entail ensuring social stability amidst environmental and economic crises, improving efficiency, accountability and transparency, and leading research and innovation during this transition. In Chapter 10, he reiterates his belief that a competent national government rooted in local democracy is critical in laying down the foundations for effective policy innovation, public engagement, and regulations. One facet of the government Orr is very critical towards is excessive military spending and the supply chain of violence which supports the military-corporate complex in what he refers to as the “American security state” (177). Orr stresses that the transition to a non-violent world, along with the abolition of nuclear weapons, is also equally important in creating a sustainable civilization.

In Chapters 11 and 12, Orr provides a glimpse of what some of the proposed solutions at the community and city-wide scale looks like. He cites the revitalization of the city of Chattanooga, Tennessee into a green city as an example of green urbanism pioneered by David Crockett (to whom the book is also dedicated). In doing so, Orr adds his voice to others before him such as Donella Meadows and Jay Forrester who have argued for systems thinking and analysis for urban as well as regional governance. The book ends with a summary of the Oberlin

Project, an exemplary effort of regional collaboration of the City of Oberlin, Oberlin College, and private and institutional partners. The project was formed to improve food systems, sustainability, resilience, and the economy as an integrated response to the challenges posed by the climate crisis and provides a blueprint for other cities and regions with a bottom-up catalyst in our transition to sustainability.

While Orr is a proponent of radical systemic changes, he rests our best hopes on grassroots movements, organizing, and gradual shifts in thinking that eventually leads to political change. Although these sorts of movements are ultimately what is required, it is less clear whether they will occur with the speed and immediacy required to divert our current pathway from the crisis. Such fundamental changes which would include a radical reset to our economy and has also been deemed necessary by others. One of them is Naomi Klein, a Canadian author and social activist, who has thrown her full support behind the Green New Deal (Klein, 2020). It is a holistic vision and bold agenda championed by progressive Democrats that proposes federal policies and a 10-year national mobilization of massive societal resources to curb carbon emissions and create a fair and just economy. Although Orr does not specifically discuss the Green New Deal in this book, he makes a case here that suggests that success for any reform depends first and foremost on a competent government and sustainable democracy. The book is written mostly in the context of Western countries, in particular the United States, and Orr's recommendations are mostly applicable to the rest of the world. However, for weaker democracies in the developing world, a lack of capital and technology and poor governance over the economy and resource exploitation pose a much steeper challenge.

This book reflects the dedication of Orr's lifelong scholarship and passion and his vision of the necessary changes for humankind to transition into a sustainable planet. This is an excellent book for an introduction to the long-term challenges owing to our collective failure in foresight and leadership thus far in handling this climate crisis. It also provides a philosophical, thoughtful, and hopeful manifesto of the urgency we must show to overcome it. Orr emphasizes time and time again that we require radical changes in governance, the economy, and education systems to have any chance of self-correction against this crisis. This book could be a required text in an undergraduate classroom which provides a foundation for discussions in disciplines of environmental sciences, geography, and economics. It is also a great resource for scholars, students, policymakers, practitioners and anyone looking for guidance, solidarity, and a call to action as we head into the dangerous years ahead.

## References

- Klein, N., 2020. *On fire: the (burning) case for a green new deal*. New York, NY: Simon & Schuster.
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