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*Getting Out the Boats:
a Primer on Hard Times*

The first rule of holes: when you're in one, stop digging.

— MOLLY IVINS

Anything more than the truth would have seemed too weak.

— ROBERT FROST

Time to Get Out Our Boats

IN 2005, ABOUT SIX MONTHS BEFORE HURRICANE KATRINA DEVASTATED New Orleans, killed thousands of people, cost us billions of dollars and reshaped the American South, there was a television movie on Fox, called *Oil Storm*. This rather mediocre docudrama predicted what would happen when New Orleans and the Gulf Coast experienced a category 4 hurricane that destroyed the region, broke the levies and destroyed much of the region's oil refining and transporting infrastructure. The film created this scenario based on readily available analyses, including large quantities of government material describing the possible effects of a large storm in the Gulf. The focus of the movie was on what would happen to the nation after such a hurricane precipitated an energy crisis, but the film touched on the human costs of the destruction of New Orleans, showing citizens unable to evacuate being moved into sports stadiums.

All of which means that not only could the American leadership have known what could happen in New Orleans because they'd had briefings by the National Weather Service and the Army Corps of Engineers, but the information about what could happen was available to anyone who watched Fox.

This point matters a great deal, because if you were to ask most of our leaders whether we are on the brink of a crisis that will change our world utterly, make you and your family poorer and more vulnerable, and transform the lives of ordinary people into something currently unrecognizable, I doubt the answer would be yes. And here I come telling you that we are, in fact, on the brink of such a crisis and that we desperately need to prepare for it. Why on earth would you believe me and not our leaders?

The only answer I can give you is this — the government and the media aren't paying any more attention than they were before Katrina and, either by negligence or intent, do not understand what we face, even when the evidence is right in front of them. On the other hand, I'm paying attention because I don't have a choice. I'm watching the price of food go up because I have kids who have to eat. I'm watching data on oil depletion and price rises because I realize how much the whole society depends on cheap energy. I track data about the impact of Climate Change because my children and grandchildren are going to live in this new world we're creating. I have no choice but to know — and neither do you.

Naomi Klein, in her remarkable book *The Shock Doctrine: The Rise of Disaster Capitalism*, makes a compelling case that the disaster in New Orleans was permitted to happen by our government, and it is hard to believe otherwise. We must recognize that Hurricane Katrina was not an isolated incident, and that we cannot trust that distant leaders will protect us and act in our best interests. Whether by negligence or intent (and I am persuaded that some, at least, is by intent), the US is already falling apart — literally in some cases as we saw in the summer of 2007 with the Minnesota bridge collapse and the largest-ever oil leak coming out of underground Brooklyn oil lines — and we are not being protected. Klein quotes attorney Bill Quigley as saying,

What is happening in New Orleans is just a more concentrated, more graphic version of what is going on all over our country. Every city in our country has some serious similarities to New Orleans. Every city has some abandoned neighborhoods. Every city in our country has abandoned some public education, public housing, public healthcare and criminal justice. Those who do not support public education, healthcare and housing will continue to turn all of our country into the Lower Ninth Ward unless we stop them. (Klein, 221)

Actually, it is worse than that. Quigley and Klein are reckoning without Peak Oil and Climate Change and the effects that will occur throughout the

system. Unless we get to work both protecting our families and building existing mitigating structures, most of us may face lives that will make those of Katrina victims look rich and pleasant.

If we can take one message from Hurricane Katrina, it is that our government is probably not going to lead. And if our government does enact policy changes, it certainly isn't going to do it in time to protect your kids, or the rest of the world's kids. The sad truth is that governments mostly don't lead — they follow. And who do they follow? One way or another, most governments follow the will and anger of their people. That is, they are waiting for us to lead them, to tell them what we really care about. It is time — and past time — that we do. And it is past time that we protect ourselves and our communities, even if the government can't or won't.

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Talk to people about Peak Oil
and Climate Change, and
encourage them to prepare.
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It wasn't the federal government that was first on the scene in Hurricane Katrina. It was regular people with boats, or at least courage, who got out there and rescued their neighbors and people they'd never seen and would never see again. It was ordinary people who tended one another's hurts. It was ordinary people who sought solutions. It was ordinary people who led the way, and the government eventually followed. And now it is time for ordinary people like us to get out our boats again and lead the way — to save our kids and our neighbors' kids and the kids of people we've never met and never will. That's what this book is for — getting out the boats.

Facing Up to the Future

When my oldest son, Eli, was born, I was struck by how small and helpless he was. Of course, I'd expected that. What I hadn't expected was how small and helpless I would feel as a mother. I suspect anyone who has been a parent knows that queasy feeling of realizing that here's a tiny human being who needs your protection. But our children's future depends on a host of things that many of us have little control over.

Most of all, I want to provide stability, security, peace and comfort for my family, to give them the best possible future, but the world keeps growing in the other direction. Economic inequities mean it is harder for me and billions of other people to meet basic needs. Food, energy, medical and housing costs are rising far faster than most family incomes. I want to give my children security, but the harsh reality of Climate Change makes food and water

security increasingly unlikely in many places. The UN estimates that up to 1.5 billion people may be without clean, reliable sources of water in the future — and some of them will certainly be living near me. I want peace, but my country is on a quest for oil that seems likely to be endless. I want my family to have the comfort of a simple, clean, healthy life, but everywhere I turn there are more toxic chemicals in the air and food. Recent studies have shown that things as basic as plastic baby bottles and bath toys may contain endocrine disruptors and carcinogens.

And because I love my children so, I want other people who care equally for their families to have peace and security and health and sufficient food

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There is no need for children to know all the bad news. Make adaptation fun — talk about how nice the new way of doing things is, or discuss living like people did long ago. Older children need more truth than younger ones, but don't rush it — or overprotect them.

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and water too. But the choices we're making simply don't seem to be taking us in that direction. Even more frightening, no matter how we protest and how we vote, we seem to be getting less secure each year.

The chances are you want the same things for the people you care about, and are experiencing similar struggles. I needed to know the truth about the future for my kids, and so do you. As difficult as it sometimes is to hear the bad news, you and I and all the working families in this country and other countries

have to know this, because the consequences of ignorance are simply too terrible to bear.

If we wait for someone else to fix things, we may find that we are like the people in New Orleans, drowning because no one took the time to prepare. We must begin to prepare, both at the personal level in our own homes and communities and by advocating for larger solutions. But all of us have limited time and energy; so being able to narrow our focus and decide what we must do is as important as knowing that we must prepare. As I researched these issues for myself and my family, I encountered a lot of information that didn't seem entirely relevant — either it argued for the same old kinds of activism or it was survivalist, assuming that all was already lost and we were going to turn on each other. Neither of these perspectives interested me much.

Other writers focused on science and the economics of Peak Oil — fascinating and important, but not always applicable for an ordinary person who has already seen that we can't simply go on trusting that important people

will fix things for us. Though much of what I read was valuable, comparatively few analysts addressed the real questions, which are, Where do we go from here? How will this affect me and my family?

A lot of what I found described things that didn't seem very relevant to my life and the lives of the people I knew. Yes, news about funky electric cars was cool. But let's be honest — there's no way I could pay outright for a new, cutting-edge vehicle, and isn't part of the problem our national indebtedness? Yes, it was interesting to talk about putting solar power on my roof — but the \$20,000 or so it would take to power my house was out of the question. And it occurred to me that I am not the only person who must feel this way. As I began to write about this, I found that there are thousands of people who are worried about how to care for their families and communities, and whose basic priorities haven't changed — they want healthy kids, a decent future for their children, to be able to feed themselves and their families and meet basic medical needs. They want something to be hopeful for, but also an honest dose of the truth and a direction to go forward in.

For me, the central issue is protecting my family and other families — the ones who live next door and the ones who live around the world. At the root of our problem is the fact that we are simply not thinking about the future. We talk a good game about wanting better for the next generation, but we aren't living our lives as though we love our own kids, much less anyone else's. It seems to me that the only way to give the next generation a decent shot at life is for those of us who care most about them to take things into our own hands and prepare for the changes ahead. That's why I wrote this book — because I suspect that if enough of us can focus our eyes on the future, we can at least mediate some of the worst coming harm for our own families and for others, and perhaps, just perhaps, make our voices heard in a world where that seems increasingly difficult.

And how should we focus our resources? There are many possibilities, many of them high tech. Do we look to electric cars or high-speed rail? Do we put solar panels on every roof or heat our houses with biofuels? What is perhaps radical about this book is that my answer is no, none of the above. So far the message most of us have received about Climate Change and Peak Oil and our financial situation is “We can go on exactly as we have been, with just a few little changes to renewable energies.” Unfortunately, that's a fairy tale.

What I want to tell you is this: we are past the time at which we could hope to go on more or less as we have. For good or ill — and probably some

of both — we have to make real changes in our lives. Most of us living in rich nations are going to have to learn to live simpler lives, using much less energy. We will build some windmills and we will do some things with renewable power. But a life that can go on for generations, a life that is truly sustainable, is going to be very, very different from the one we live now, and much more like the way our grandparents and great-grandparents lived. Few people will say this, because it isn't an easy thing to get your mind around. But it is true, as I will show you.

For this sacrifice, for this enormous change, if we can make it, we get some things in return. With good luck, we get healthier lives, more time with our families, a better, tastier diet, a stronger connection with nature, hopefully peace and more justice, a fairer economic system. Most of all, for those of us who care about our children and grandchildren more than we care about ourselves, we get to stop betraying the future and live our lives as though we really and truly love our families. We get to do what parents and grandparents are supposed to do for their kids — save and sacrifice to give their children a more hopeful future.

So where do we put our energies and resources? First, we take care of ourselves. We make sure we have food and shelter and a way of meeting our family's needs. Second, we move outward to our community, organizing groups that help our neighbors get along — remember none of us can be secure in isolation. And then we use our political and social powers to focus on the things that matter most. And it turns out that things we have to care most about in response to the present crisis are the same things we cared about all along — health care, education and security for the poor, the vulnerable, children, the elderly and the disabled. It really is as simple as that. If we've got time later on, great, let's build a network of electrified rail lines. But in the meantime, make sure your mom can get her heart medication, that the kids are learning to be real, engaged citizens, and that there's food in the pantry for all your neighbors. It turns out that this crisis hasn't really changed us at all — the simple stuff is still what matters most.

Speaking of fairy tales, I think sometimes of the story of Sleeping Beauty. The trouble starts because of what we forgot to do, because we left the bad fairy off the invitation lists. She's the representative of all the things we have left undone, of our failures and limitations, and she curses us because of our mistake. Now, that may not seem fair, and it is certainly an over-reaction, but that's how life is sometimes — we have to deal with the real consequences of our actions.

After the bad news of the curse, we can't spend time wishing it weren't so — we all start from the place we are now. It isn't always an easy place to begin, and there's a temptation to just hope that the bad things go away. But we can't. Each of us has power, the same power of the last of the fairy godmothers, the power of mitigation. She couldn't break the curse on Sleeping Beauty, but she could protect her a little and soften the curse. That's us — if we're courageous enough and willing to face the truth, we can soften the curse, and perhaps come out with a happy ending instead of a tragedy.

Hurry Up, Please; It's Time

Most books about Climate Change, Peak Oil, or economic crisis focus on the future. Their goal is to motivate you to action by describing what may happen. I will do some of that here, but as I began to put this book together, more and more I found myself replacing the future tense with the present, describing not what might happen, but what is. Unfortunately, the hard times I'm talking about do not lie in the conveniently distant future but have begun already. The only question is whether you or I have felt them yet.

By this I mean to say that though we do not know the exact shape of the long-term crisis we face from energy depletion or environmental degradation, we miss the point if we focus only on models and hypotheses. Right now we are in the midst of an environmental disaster, at present experiencing the high personal costs of energy depletion, at present losing economic ground to policies designed to increase inequity. I know that many of the people who read this book won't necessarily see the makings of a crisis — yet. Others will already be caught up in the early stages of the problem, experiencing job losses, foreclosures or the struggle to keep afloat economically as prices rise. So while we will speak of the future, my case that the world is about to change, irrevocably and deeply, rests primarily on the painful fact that it already has begun to do so.

And is there really any doubt that this is true? Is it possible to imagine any other time in American history when we would have consented to see an entire major city laid waste, without ever rebuilding even its most basic infrastructure? Is it possible to imagine another time when we would have shrugged and accepted the knowledge that our basic infrastructure, things like highways,

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Attend zoning meetings and consider running for zoning board. Work to amend local zoning laws to encourage green building, composting toilets, clotheslines, small livestock, mixed-use housing, front lawn gardens and other future essentials.

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sewers and subways, were simply falling apart and that we had no intention of fixing them? Is it possible to imagine another time when we knew we were in danger of handing our children a future of hunger, poverty and drought, and sat around debating whether congress might want to consider raising fuel efficiency standards? Has there ever been a time in history when citizens felt so powerless to stop the forces that were driving them to disaster?

If, in the face of all the evidence in front of our own eyes, we find that things really are falling apart, we might listen to the respected voices issuing the same opinions. There are some out there — despite the overwhelming lack of responsiveness of our government. For example, in the summer of 2007, David Walker, comptroller general of the US General Accounting Office, warned the nation that the US was increasingly looking like Rome at the point of its collapse. A few months later Walker resigned in frustration at America's failure to respond to the collection of crises facing the nation.

Few of us have put all the pieces together, but when we failed to rebuild New Orleans, when we accepted that we can't afford the tax base to keep bridges from falling on motorists and sewers from backing up, when we

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If your community doesn't
have a food co-op, start one,
focusing on local foods.

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accepted that electric grid failure will kill people in the inevitable heat waves, we implicitly acknowledged what we have not yet faced up to consciously — that things have changed, and many of our problems are going to continue getting worse because we lack either the will or the money or the energy or the time to fix them

When I realized that everything was going to change, I was at first afraid. Because I thought, if my government or public policy or other choices weren't going to fix everything, what could I possibly do? What hope was there, if I had to take care of myself, if my community had to take care of itself?

But when I began looking for solutions that could be applied on the level of ordinary human lives, that involved changes in perspectives and pulling together, the reclamation of abandoned ideas and the restoration of strong communities, I began to feel hopeful, even excited. Because I realized that when large institutions cease to be powerful, sometimes that means that people start being powerful again.

Defining Our Terms

I'm not going to devote a lot of space to explaining what Peak Oil and Climate Change is, or why the nation is in the shaky financial shape it is.

You'll find a lengthy bibliography in the back with lots of resources written by the same authors that I learned so much from. I will, however, define my terms here, so that we're all clear on what we're talking about.

Peak Energy (sometimes called *Peak Oil* because oil is the first major fossil resource likely to reach the halfway point) refers to the point at which we've used up half of the accessible fossil fuels in the world, and what's left begins getting ever-more expensive and harder to get hold of. There is no controversy about whether Peak Oil or gas or coal will happen — whenever there is a finite amount of something, at some point, you use up half — that's just common sense.

Figuring out when this will happen is difficult, but there's a growing consensus that "when" is either very soon or has already happened. The General Accounting Office, for example, states that a majority of petroleum geologists believe we are at or very near Peak Oil. The US Army is preparing for Peak Oil. The US Department of Energy has commissioned studies on the subject. The International Energy Agency recently released a report expecting "supply constraints" for decades to come. A number of equally credible sources believe that natural gas and coal will peak fairly shortly after oil and that all the world's major fossil energy sources will be in decline soon. This is a huge matter — kind of like learning that soon the entire world's oxygen will be gone. Because, just as oxygen keeps us going, fossil fuels keep our economy and society running in a whole host of ways.

Fossil fuels are the most concentrated and accessible sources of energy out there. For example, it takes about one barrel of oil to get between 30 and 100 barrels of oil out of the ground. On the other hand, for solar panels, one barrel of oil equivalent gets you three barrels of oil equivalents, and for ethanol, at best you get 1.34 barrels for every barrel you invest. This is called EROEI, energy returned over energy invested, and it helps us measure just how expensive it will be to produce energy and how much we'll need to replace, say, a barrel of oil or a truckload of coal. Detailed analyses can be performed, but it is enough here to know that the answer to how much of our energy infrastructure we can afford to replace is "not much, not quickly." Shell's CEO recently announced that despite heavy investment by his own company, it would take "decades" for renewables to make a dent in fossil fuel consumption. If other technologies were cheap, easy replacements for oil and gas, we'd have replaced them already.

In 2005, the US Department of Energy commissioned a report, known as The Hirsch Report, which said that to address Peak Oil and keep our basic

way of life going, the US would require “unprecedented” effort *20 years in advance* of the world’s oil peak — a giant, World War II style national project of switching over, but vastly larger than World War II. Otherwise, we could expect real hardships, even disaster. Even the most optimistic estimates, such as the US Geological Survey’s, suggest that our oil will peak in about 15 years — which means that, in a sense, it doesn’t really matter when Peak Oil happens — we simply don’t have enough time to make an easy transition.

Public figures on every part of the political spectrum agree. It isn’t an issue of left or right — people from Bill Clinton to Dick Cheney, from filmmaker Michael Moore to George Bush’s former energy czar Matthew Simmons, from Al Gore to the CEOs of many major energy companies and the US Army believe the peak is here or coming.

An army report on energy trends and security said,

Peak oil is at hand with low availability growth for the next 5 to 10 years. Once worldwide petroleum production peaks, geopolitics and market economics will result in even more significant price increases and security risks.

(US Army Report: Energy Trends and their implications for US Army Installations. energybulletin.net/docs/EnergyTrendsUSArmySummary.pdf)

We have already begun to experience supply constraints, and just about everything that is made or transported with oil has begun to rise in cost. Virtually every purchase we make involves oil at some stage (often at every stage) — from the shoes on our feet to the houses we live in. Our food is grown with oil, packaged in oil, and transported to our grocery stores with oil. Many of us have an instinctive assumption that Peak Oil is mostly about gasoline, because that’s how we think about oil. But in fact, oil is everywhere, and our whole economy floats on a sea of oil and other sources of fossil energy that are nearing their peaks.

Rising energy prices mean rising prices for everything else — and in fact, we’re seeing that right now indirectly. Rising oil prices have driven us to try and replace oil with ethanol, which is making food prices spiral out of control, as agriculture copes with higher grain prices, higher fertilizer prices, higher equipment prices and higher shipping costs.

Food represents a special problem in Peak Oil, perhaps the most urgent of all problems. Those of us who have never known hunger may find it hard to believe how close we are to a world food crisis. In 2007 world grain stocks

fell to the lowest levels in modern history because of drought, Peak Oil-related biofuel production and other environmental consequences. As world population rises, we face being unable to feed ourselves. Lester Brown, director of the Worldwatch Institute has argued,

The first big test of the international community's capacity to manage scarcity may come with oil or it could come with grain. If the latter is the case, this could occur when China — whose grain harvest fell by 34 million tons or 9 percent between 1998 and 2005 — turns to the world market for massive imports of 30 million, 50 million or possibly even 100 million tons of grain per year. Demand on this scale could quickly overwhelm world grain markets. When this happens, China will have to look to the United States, which controls [over 40 percent of] the world's grain exports ... some 200 million tons.

This will pose a fascinating geopolitical situation. More than 1.3 billion Chinese consumers, who had an estimated \$160-billion trade surplus with the United States in 2004 — enough to buy the entire US grain harvest twice — will be competing with Americans for US grain, driving up US food prices. In such a situation 30 years ago, the United States simply restricted exports. But China is now banker to the United States, underwriting much of the massive US fiscal deficit.... (Brown, Plan B 2.0 14)

Since Brown wrote this passage in 2006, China has become a net importer of food for the first time; and the boom in biofuels to replace scarce energy has used up one-quarter of the US corn crop, making the oil/food link even more fragile. Hunger rates are rising, and American food pantries and world hunger relief agencies are failing to keep up.

Recently, an analysis by *Oil Drum* editor Stuart Staniford argued that under current food and energy policies, several billion people could starve to death in the next decade. The collision course the US and China are on bodes badly for nearly everyone. The 35 million Americans who now suffer from food insecurity and hunger do so not because of any shortage of food nationally, but because they cannot afford to eat. There is no reason to believe that as more of us struggle to feed ourselves, and as we confront real food shortages, we will not see hunger rise to affect some or even most of us.

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Grow an extra row of your garden for the local food pantry or soup kitchen. Encourage neighbors to do the same.

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Along with rising prices, we may also experience shortages. For example, as China and India require more imported oil, the US may sometimes experience shortfalls. War and terrorism caused by oil conflicts may also lead to shortages. There has been much discussion of what might happen if the US bombs Iran and Iran elects to close the Strait of Hormuz, through which a significant percentage of oil tankers pass, or if Venezuela cuts off oil exports to the US. This could result in a sudden, catastrophic reduction in available oil. Nor is it terribly unlikely that hurricanes will take more of the refining capacity in the Gulf of Mexico offline. The truth is that we may find someday that there's no gas at the pumps or no food in the stores because it cannot be transported.

Peak Energy will appear as an economic problem; that is, the way we are likely to experience Peak Oil is not in the sudden disappearance of oil

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Encourage your kids to get involved with political and social issues they care about. Help them raise money or awareness, and help them understand the role of citizens in hard times.

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from our lives, but in the steady rise of gas prices, food and goods prices, and job losses, along with shortages and disruptions. It is likely to steadily make us poorer, less able to afford the lifestyle we've been living. But peak alone is far less serious than the disastrous one-two punch of Peak Oil in combination with Climate Change.

Unless you've been living in a cave, you know about Climate Change. You probably know there is no longer any real controversy about whether Climate Change is anthropogenic, that is, caused by human beings. And you know that the things that cause Climate Change are the energy emissions of burning fossil fuels. What you probably haven't heard is just how dire the situation is. While individual scientists have been sounding the alarm, governments and institutions have gone out of their way to make Climate Change sound like a problem we've got a long time to worry about — and that isn't true.

The one absolute truth about Climate Change is that it is happening much faster and harder than anyone expected. In the spring of 2007, the Intergovernmental Panel on Climate Change (IPCC) report came out, detailing the state of the climate. Within a few months, parts of the report were completely out of date — which we know from observed data that demonstrated that the Arctic ice was melting 75 years ahead of what they'd expected a few months before.

Climate Change is caused by human emissions; it moves faster or slower partly in response to our rate of emissions, but also because of natural

“tipping points” that make the planet take things in its own hands. So, for example, during one of the last great climactic shifts, the planet may have gone from being fairly warm to an ice age in less than ten years; and then the ice age may have ended in a single season! These things are very hard to model, but projections for the future that imagine Climate Change will occur in a gradual and orderly fashion are probably wrong.

Chief climate scientist of NASA James Hansen has argued that we have

about 10 years to put into effect the draconian measures needed to curb CO₂ emissions quickly enough to avert a dangerous rise in global temperature. Otherwise, the extra heat could trigger the rapid melting of polar ice sheets, made far worse by the “albedo flip” — when the sunlight reflected by white ice is suddenly absorbed as ice melts to become the dark surface of open water. (independent.co.uk/environment/climate-change/the-earth-today-stands-in-imminent-peril-453708.html)

The idea that we have very little time to stop burning fossil fuels is one that more and more scientists are endorsing. Though conversations still emphasize high-tech solutions, simple mathematics seems to indicate that the vast majority of our carbon cuts are going to have to be simply by ceasing to use fossil fuels. Even if we had the resources to perform a large-scale buildout, it would take decades — far longer than we actually have. So we must prioritize cutting back our energy usage. That means bigger changes than most of us have been expecting — not buying energy star appliances, but getting rid of the appliances altogether.

What could happen if we don't fix this? More than half of the US population lives near a coastline. A one-meter sea rise would inundate many major American cities and coastal areas. Such a sea rise could come quite rapidly if a tipping point, such as an ice-free Arctic, is reached as early as predicted (predictions suggest it could happen as early as 2013). Seawater rise is already eroding coastlines off California and North Carolina, contaminating drinking water in Miami and bringing water into basements in Boston.

Catastrophic drought is already occurring all over the world. Australia is paying its farmers to walk off their land because there's no evidence there will ever be enough water to grow food. The drought in the American Southwest is expected to last another 100 years. Grain harvests in Africa are expected to halve by 2020.

That means less food and water to go around, not just in poor places, but in rich ones as well. It means people leaving places that are too dry or

that are repeatedly destroyed by storms. It means millions or billions of people made refugees, and people with houses they can't sell because no one wants to live there. It means food prices rising higher and higher, and hunger stalking our families. It means more deaths during more heat waves every summer. That is, it means getting poorer and having less stability and security; it means migration and people leaving their homes and having less. It means, in fact, the same things as Peak Oil — and we're facing both of them together. James Howard Kunstler has called this confluence “the long emergency,” and that's a good term for it — because what we are facing is one endless, grinding crisis.

Financial collapse now seems to be a near inevitability. We've borrowed so much money from our inflated housing and on credit cards that the average American has a negative savings rate and borrows 5 percent more than they earn. Foreclosures are rising, and more and more of us are paying mortgages on houses that could never be worth what we paid for. Some analysts have suggested that our homes may lose up to 50 percent of their peak value. At this writing housing has already lost nearly 25 percent of its value over 2007, and home sales are down by nearly 40 percent in some regions. The dollar is falling and is increasingly not the currency of choice. This is a far larger subject than I could ever hope to take on, but it is enough to say that we have dug ourselves into a massive hole that there seems to be little way out of.

In the spring of 2008, currency and economic crises were springing up all over the world, from Iceland, experiencing massive inflation, to China, struggling to avoid the impact of the world economic crisis in its rapidly growing economy. Food prices worldwide have risen dramatically, with rice prices rising 30 percent in a single day in March 2008, increasing both economic and political instability.

Secretary of the Treasury Henry Paulson announced in 2007 that “the nature of the problem will be significantly bigger next year.” Nearly everyone is warning of severe recession, or even a depression. Among those who foresaw this situation is New York University Professor Nouriel Roubini, who said, shortly before the Thanksgiving 2007 stock market meltdown,

It is increasingly clear by now that a severe US recession is inevitable in next few months.... I now see the risk of a severe and worsening liquidity and credit crunch leading to a generalized meltdown of the financial system of a severity and magnitude like we have never observed before. (rgemonitor.com/blog/roubini/228234/)

With What Will We Fix It, Dear Liza, Dear Liza?

Now, is all of this inevitable? Do I know for certain that some magic technology won't come along and fix everything up so that we can all have unlimited clean energy? Nope, I don't. My crystal ball isn't any better than yours. The odds are against it, as we're already in the crisis and it hasn't appeared. But the logic behind preparing for hard times and getting my family and my community ready is very simple. It is simply a matter of asking myself "What happens if I do?" and "What happens if I don't?"

Well, if I do get ready and protect my family, I'll have to devote some of my money and a lot of my time to things like gardening, cooking from scratch and insulating my house. I'll also probably eat better food, save money, get more exercise and spend more time with my family. I will have to pay a price and make some sacrifices, but I'll still have the things that matter most to me.

If I don't prepare for these times, the worst case scenario is that we could die. If you think I'm exaggerating, you aren't paying attention — poor people in the US die much younger and faster and harder than rich people right now. So if I get very poor, if my family can't pay for medications and I can't take time off work to treat basic illnesses, if I can't afford healthy food and I'm away from my kids all the time trying to make ends meet — I could die, or my kids could. If we have wildfires or hurricanes because of Climate Change we could die. If we can't heat our houses because of the rising prices of oil, we could die. If diseases to which we have minimal immunity have moved north in a warming climate, we could die. Actuaries are already saying that nearly a million people died in 2007 from Climate Change. If any of us are imagining that we aren't vulnerable to the worst price of Climate Change and environmental degradation, we're deluding ourselves.

As Samuel Johnson said, "When a man knows he is to be hanged in a fortnight, it concentrates his mind wonderfully." That is, there's nothing more likely to change our lives than knowing that our kids and grandkids might go hungry, that we might die in middle age because we can't afford basic medication, that people we love — or even total strangers — might suffer horribly because of our actions. We need to concentrate our minds and our lives on this — it is the greatest challenge in history.

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Now is the time to prepare for illness.

Keep a stock of remedies at hand,
including useful antibiotics,
painkillers and tools for
handling injury and illnesses itself.

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So this book's most significant suggestion is that we simply get over the notion that we're all entitled to use a lot of energy and have a lot of stuff, and that we start living within our real means (within our incomes, not on credit cards) and with a fair share of the world's resources.

Our terrible affluence is at the root of our current crisis. Somehow most people in the rich world have gotten the impression that we're here not to care about others or do good work but to get "ahead" and accumulate stuff. Most of our energy use goes to make us a little bit more comfortable, not to meet essential needs. Perhaps the most important work we can do is to distinguish between wants and needs, and to find something besides consumption to value and put at the center of our lives. My suggestion is that we put our hope for the future there, and begin to live our lives as though we hold the world — and our particular piece of it — in trust for future generations.