

The future

life outdoors

STAY INSIDE

OPT OUTSIDE



"In nature, nothing is perfect and everything is perfect."

ALICE WALKER

Novelist and poet



INSIDE, DO YOU WANT TO BE OUTSIDE?

If you spend time in nature, odds are you'll see the importance of the outdoors. You'll feel the calming power of simply being outside, the connection to something bigger. And it's not surprising, because we used to spend our entire lives there. But unfortunately, today many of us are disconnected from our natural habitat.

The average American spends 95 percent of their life indoors.¹ As a result, we are becoming an indoor species, which comes with consequences. Our health and well-being may suffer. And the less we value our outdoor spaces, the less likely we are to protect them. It's a slippery slope.

The long march indoors is not inevitable. We are at a crossroads. Our decision now will dictate our future. Since 2015, more than 7 million people have chosen to #OptOutside on Black Friday with REI but that's just one step. This publication — The Path Ahead — presents trends that affect the future of life outdoors. The Path Ahead doesn't present all the answers. It's designed to provoke discussion by exploring nine 'brutal truths' juxtaposed with nine 'beautiful possibilities.'

Together, they paint a picture of what could happen if we stay inside as a species, or #OptOutside. It's time to choose.



To watch the video, please download the PDF to your desktop or visit our YouTube page



TABLE OF CONTENTS

STAY INSIDE		OPT OUTSIDE
PG		₽G
7 ······ LOST GENERATION	N 1	WILD GENERATION 9
13 ····· INDOOR SPECIES	S 2	FREE RANGE HUMANS 15
19 URBAN SPRAW	l 3	WILD CITIES 21
25 ALL WORK, NO PLA	Y 4	HEADSPACE 27
31 ····· SICK AND SA	D 5	NATURE RX 33
37 ·····VIRTUAL WORL	D 6	AUGMENTED OUTDOORS 39
43 ·····NICHE NATUR	E 7	OUTDOORS FOR ALL 45
49 TURF WAR	S 8	NATURAL ECONOMY 51
55 POST NATURE WORL	9	THE OUTSIDE CHANCE 57



Imagine kids who Today, kids spend less time outside than prison never see the sky inmates, with the average child playing freely outside for just four to seven minutes a day. But time outdoors is essential for children, contributing to their social, emotional, academic and physical development.²

> The rise of technology, parental fears about traffic and stranger danger³ and the loss of open spaces, are just some of the factors keeping children indoors.4 Research shows that children are spending half as much time outside today as they did 20 years ago.⁵

But in trying to protect our kids, we may be harming them. Lack of time spent outdoors is linked to issues like anxiety, childhood obesity, academic underperformance and even bullying.6 If we continue on this road, we're heading toward a generation that's unhealthier and unhappier.

Research has shown that if children don't develop a sense of respect and care for nature during their first few years, they're at risk of never developing such values.7 Today, some kids would rather do chores or homework than spend time outdoors.8

We're in danger of raising a generation with no relationship with the outdoors that's bad news for them and for nature.



NOONE $will\ protect$ what they don't care about; and no one will care about what they have never experienced."

SIR DAVID ATTENBOROUGH, Broadcaster and Naturalist







$oldsymbol{W} oldsymbol{I} oldsymbol{L} oldsymbol{D}$

Imagine every child Nature stimulates imagination and creativity. playing outside It reduces stress and teaches children valuable life skills like self-reliance and self-responsibility. It also gets them physically active. 11 Imagine if we could make the outdoors part of every child's life.

> While the dominant trend right now is indoor playtime, the possibilities for improving a generation's health and wellbeing through the outdoors are incredible. Spending time outside raises levels of Vitamin D, which protects children from bone problems and other health issues. 12 Plus, offering environmental education programs in school improves kids' standardized test scores.¹³

Thankfully, some evidence suggests children are starting to head outdoors. At least two million people downloaded Every Kid in a Park passes, 14 which offer fourth graders and their families free access to hundreds of parks, lands and waters for a year. Forest Schools and outdoor preschools are also on the rise across America.¹⁵ And there are new camps that make the freedom of a summer in nature accessible for kids whose families wouldn't otherwise have the means.¹⁶

Research offers clues on how to make our next generation wilder: peer role models. Ninety-one percent of kids said that if a friend encouraged them to spend more time outdoors, they would listen.¹⁷

All children deserve to feel the wind in their hair and mud between their toes. By helping children opt outside, we could change the future for them and for nature. It's time to put wildness back at the heart of childhood.











INDOOR SPECIES

Imagine the whole world indoors

As a species that evolved almost exclusively outside, our brains

and bodies thrive when we're exposed to the elements. But on our long march indoors, we have unconsciously cut ourselves off from the outdoor world that we depend on.

Modern humans survived outside for tens of thousands of years. But today, people spend just five percent of their day under the sky. Without realizing it, we are becoming an indoor species.

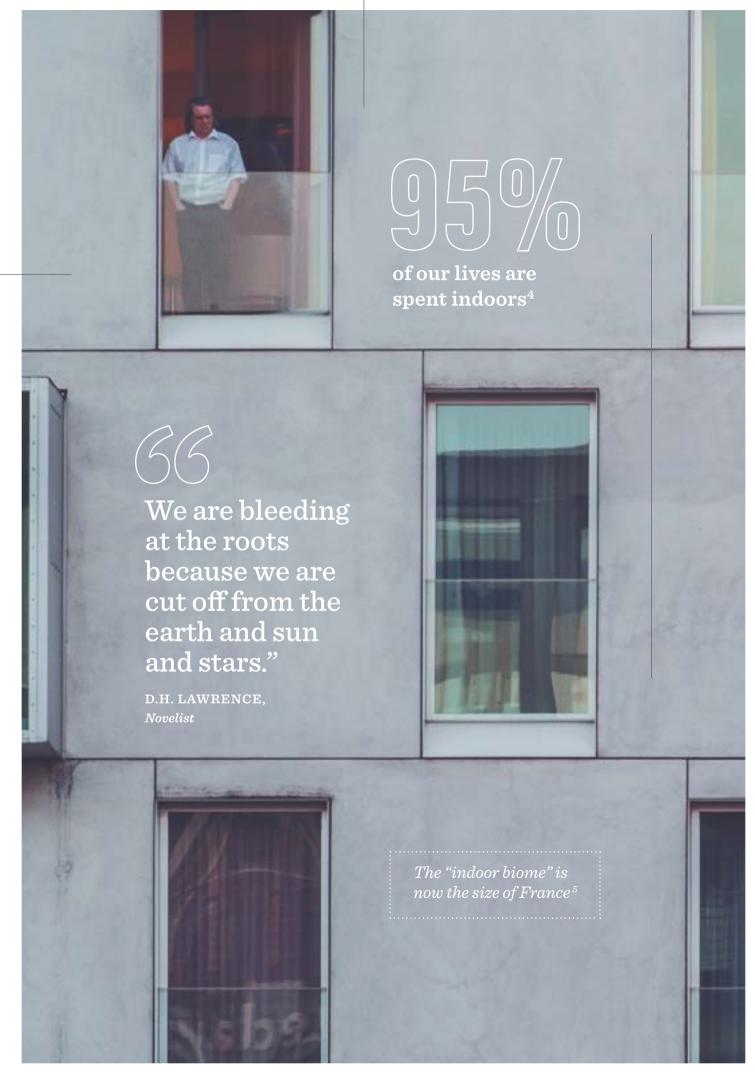
A 2001 study, which followed the daily activities of people across the U.S., concluded that time outdoors is the most insignificant part of our days.² Over the years, we retreated indoors to environments we can control, building walls and roofs to separate ourselves from nature.

Fewer and fewer people now work outside. We exercise in air-conditioned gyms and ride in closed-off cars.

We spend so much time indoors, we've created what scientists call the "indoor biome" - an environment enclosed within the walls we built. We understand little, however, about the health impacts of this man-made environment where we spend the majority of our lives.

WITHOUT REALIZING IT, WE ARE BECOMING AN INDOOR SPECIES

The answer isn't to go back to living exclusively in the outdoors or away from civilization. We must find a new, contemporary relationship with nature. It's essential we find ways to reconnect with the outdoors we came from.







FREE

Imagine being as comfortable outside as you are inside

Imagine if we reworked our lives to incorporate more time outdoors and brought the outdoors into the places where we spend our days. Could we make spending daily time under the sky as normal as eating a balanced diet?

This future starts with establishing what the right outdoor "diet" looks like. How much time *should* we be spending? What outdoor experiences *should* we be having? What is

RANGE

the correct dose and frequency we need for maximum impact? Once this is clear, let's disseminate the information widely. That way, the outdoor industry, health providers, educators, employers and policy makers can embed the outdoors into our schedules, our workplaces, our policies, our cities and our culture.

HUMANS

We see glimmers of hope that the tide could turn. From 2015 to 2016, 1.6 million more people in the U.S. participated

in an outdoor activity. 6 And National Park visits are strong, with multiple parks setting attendance records in 2016. 7

There are other positive signs. It's now totally normal to schedule walking meetings instead of sitting at desks or plan conferences and work retreats in places that resemble adult summer camps. The rewilding movement is well under way in our cities too, with more places integrating nature seamlessly into the built environment through urban design.

We *can* reconnect to our natural environment by making the outdoors a part of our everyday lives. And that can only be a good thing for a species that evolved almost exclusively outdoors.

The most popular Airbnb globally is a tree house in Atlanta, GA⁸



15



Imagine the outdoors blocked off and out of reach

Our long march indoors led us to a life in the city. This move brought about great benefits, but comes at a great cost. Our quality of life, health and wellbeing are paying the price for living further from the outdoors.

Between 2010 and 2014, an average of 33,000 people per year left rural areas in the U.S.²

The move to cities is perhaps the greatest migration in human history. In just seven generations, the U.S. reconstructed itself from a rural, agricultural society into an urban, industrialized one.

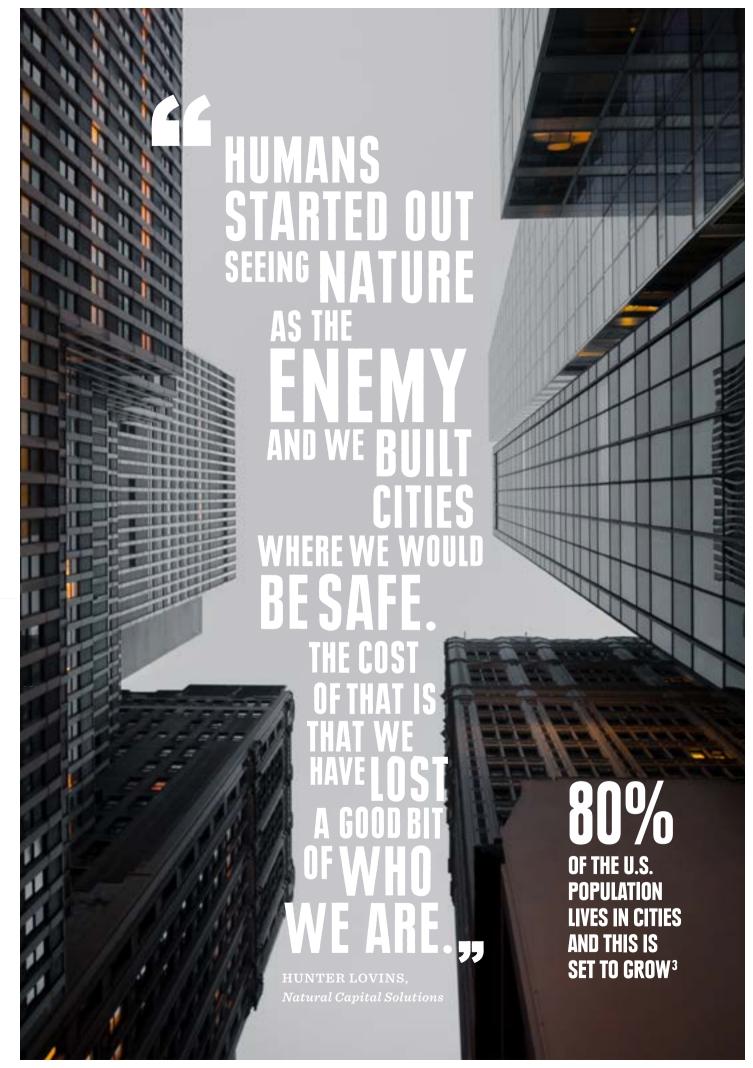
This move has brought huge benefits: safety, convenience and the ability to create economic value. However, humans are also suffering from how we built our cities: heavy on concrete, light on green space.

The beauty of our mountains, forests and prairies are central to the identity of America. Yet, many urban Americans don't experience these enriching places on a regular basis. Green space, even in our best-designed cities, is something you have to seek out between buildings and parking lots.

Today, access is one of the primary barriers people cite to getting outdoors.1 Our transportation systems are geared toward shuttling people within and between cities, plus city dwellers are less likely to own cars.

But the most important casualty of our mass urban migration may be our relationship with the outdoors. No physical relationship means no emotional relationship. If people don't experience the transformational value of the outdoors now, they might not protect it in the future. The repercussions for people and planet could be dire.

It's time to rethink our cities to rebuild ourselves.





Imagine the outdoors on everyone's doorstep

Enjoying the benefits of the outdoors doesn't mean we have to revert to living in the wilderness. Instead, we can redefine "the outdoors" so it starts at our back doors and backyards, not just the backcountry.

It would be impractical to suggest we reverse the city dwelling megatrend — or that going back to living on the land is the answer for everyone. But we can rethink the way we build our cities to increase people's access to and relationship with the outdoors.



Imagine if we reduced the barriers to getting from city to country and brought more of the outdoors into our cities. Imagine if parking lots were converted to parks, rooftops to gardens and derelict land to open fields. What if there was green, outdoor space 1,000 feet from every American? Urban dwellers could reconnect to nature within walking distance of their apartments and schools.

Several American cities are taking this challenge head-on. City planners and volunteers are greening our urban centers. People are reclaiming space with depaving campaigns, community gardens, greenbelts and expanding park systems. REI is involved in rewilding projects in several cities including Los Angeles, the Bay Area, Chicago and Seattle. They're supporting innovative solutions in places like Washington D.C. to make the city's bike trails a gateway to accessing the outdoors.

The results are starting to show. Eighty-five percent of park directors say the popularity of walking and hiking is increasing in their cities.⁴

Living in areas with walkable green spaces positively influenced longevity of urban senior citizens⁵

Americans are beginning to discover their wilder selves in these wilder cities.



Imagine never unplugging from work

Lack of time is the second biggest reason Americans give for not getting outdoors.1 No wonder: as a nation, we're starved for time. If we continue on this path, there'll be no room for outdoor activities.

How can we get outdoors if we don't have time? Even planning smaller excursions demands time, something Americans say they don't have enough of.

Seventy-five percent of Americans who get paid time off don't take all of their vacation days, fearing, among other things, losing their job.3 That means 662 million vacation days a year aren't being taken.⁴ And even when people do take vacation, they're not switching off. The blurring of work and personal time means that 61 percent of Americans still work while on vacation.⁵

This symbolizes that our society is regressing; collectively placing less value on leisure time of any sort, including time outdoors. And with no commonly agreed amount of time that we should be spending outdoors, there's no easy way to shape the public policy debate on this issue.

Office workers might be shocked to learn that people who spend four or more hours sitting per day more than double their risk of heart disease and that they face a 50 percent increased risk of death from any cause.⁶ And it's not great for business either. Working too many hours is proven to lead to less productivity over time. It's lose-lose.

Unless we start to value time off, we're heading to a life of all work and no play.

Karoshi: Japaneseword fordying of overwork





HEADSPACE

Imagine a movement for more outdoor days

Imagine if we could quantify the economic value of time off and time outdoors then rework our national schedule to include it.

Institutionalizing regular outdoor breaks from the daily grind could prove to be game-changing for people and the economy. David Strayer, Professor of Psychology at The University of Utah, took 50 people outdoors for three days, no tech allowed. After the short backpacking trip, participants scored 50 percent better on creative problem-solving tasks. 10

Results like these may encourage businesses to experiment with inventive time-off strategies. 11 REI has made room in employees' schedules to get outside. Employees receive two "yay days" off every year to enjoy the outdoors, in addition to regular vacation. 12 For three consecutive years, REI shut its stores on both Thanksgiving and Black Friday so team members can #OptOutside

with another paid day off. This move is creating a new American tradition with millions joining.

It's a simple formula: opting outside leads to happier, healthier employees and that's good news for business and society.

Let's make opting outside a regular part of life.



I go to nature every day for inspiration in the day's work."

FRANK LLOYD WRIGHT, Architect



NATURE RX?

SICK&SAD

Imagine closing the door on good health

Health in America over the past century is a tale of two halves. While there were huge leaps forward, new issues now undermine our health and happiness.

Chronic diseases like type 2 diabetes and heart disease are now among the leading causes of death in the U.S.,1 while depression and anxiety are at near-epidemic levels.2 Today, the U.S. has lower life expectancy than most other developed countries³ and our kids may be the first generation to live shorter lives than their parents.4

- What if time outdoors combined with other approaches — could help?
- Today's indoor lifestyle cuts us off from exercise, fresh air and sunlight — as well as the Vitamin D that comes with being outside. And it's not just the physical benefits that we're missing. Studies show that when people are suffering from mental health disorders such as depression and anxiety, interacting with nature can help them control their symptoms or even recover, when time outside is "prescribed" along with conventional medication.⁵

\$117 billion in healthcare costs are associated with inadequate physical activity in the U.S.⁶

Our increasing disconnection from the outdoors could well be a key contributor to our declining health. We're homesick for our natural habitat and it's time to change course before we sit ourselves to death.





NATURERX

Imagine being prescribed time outdoors to heal

If there is one accessible, underutilized and low-cost option to help us, it may be as simple as going outside. Research teams across the country are making the science-based case that time outdoors benefits both mental and physical health.

Growing bodies of research show that time in nature has preventive and healing effects.⁹ "If we could package the outdoors and call it a pharmaceutical, it would be sold widely," says Tyler Norris, vice president of total health at Kaiser Permanente.¹⁰

As a society, we should be spending more on access to hiking and biking trails and less on pills and treadmills. Getting outside is good for body and mind. A walk outside lowers stress and reduces inflammation, which is the cause of many diseases. And the feeling of awe we get while experiencing nature is also proven to promote creativity, empathy and generosity toward each other. An investigation by researchers from the University of California indicated that awe diminishes the emphasis on the individual self and, therefore, may encourage people to improve the welfare of others.

Often, the outdoor community is focused on what we need to do to fix the outdoors, but it isn't the only thing suffering — we are too. The outdoors can be the antidote to so much of what ails us in our 21st century life.

One of our most underused but potentially powerful prescriptions lies just outside our back doors.

In 2017 the U.S. Surgeon General launched Step It Up!, a call to action to get more Americans walking¹⁴



-VIRTUAL WORLD

Imagine only seeing nature on a screen

Spending time outside is an essential part of a healthy, well-balanced life. But as we spend more time looking at our screens instead of the sky, how will the relationship between technology and nature unfold?

We all know the power of a great nature documentary. And we're all inspired by images on our phones that sometimes lead to new adventures. A unique vantage point on the beauty of our shared home can make us feel connected to the outdoors and even inspire a love for places we've never been.

Screen time can have lots of negative effects on kids, ranging from obesity to social and behavioral issues

But there's another side to this story. Kids and adults alike are spending more and

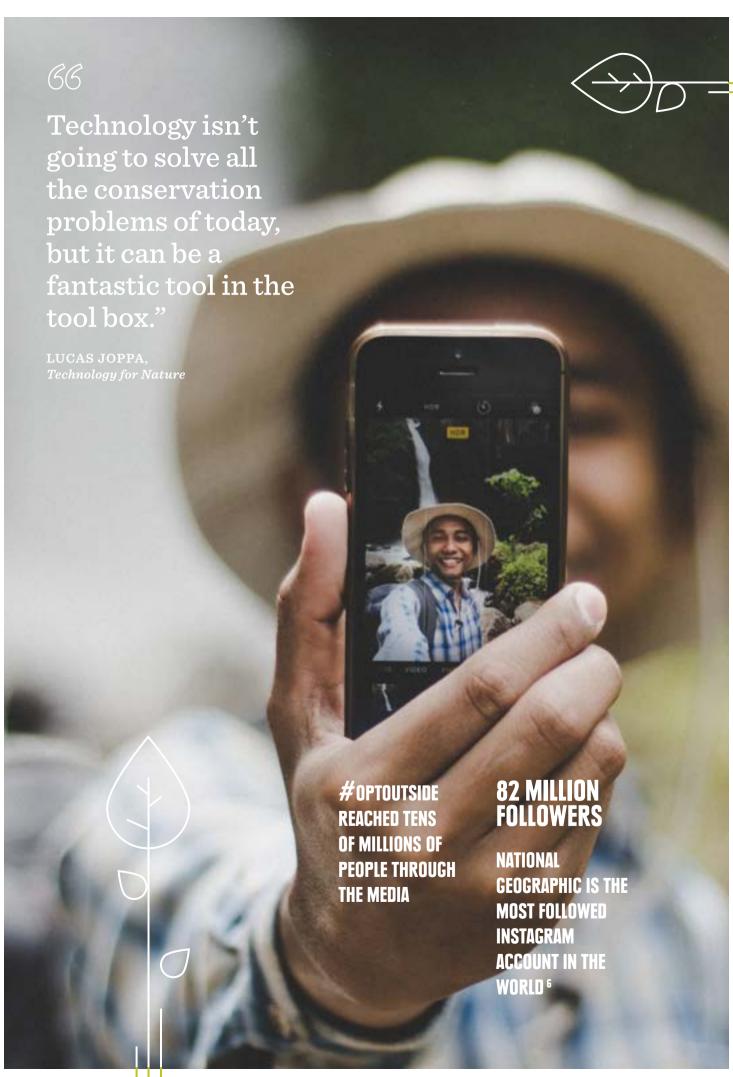
more time in front of screens.¹ And there's evidence that this may be causing unintended negative consequences.

The effects of screen time on kids range from contributing to obesity and irregular sleep patterns to fueling social and behavioral issues.² Time outdoors may be a potential remedy but time outside is declining in our kids' lives at the very moment that screen time is on the rise. It's the same story for adults.

As screens become a ubiquitous fixture of modern life, we should ask the question: are we using screens as a gateway to the outdoors or a substitute for real time spent out there?

Otherwise we may be looking at a world in which the primary way we experience the outdoors is through a screen and that could lead to a complete disconnect from our natural habitat.





AUGMENTED OUTDOORS

Imagine technology as nature's best friend

Reversing technological advancement isn't the answer to getting people outdoors. Instead, we could use technology to help more people fall in love with nature so they go out and experience the real thing.

Outdoor advocates often position technology as the enemy to a life outdoors. What if we flipped that assumption and built a complementary relationship between technology and nature?

Social media can be a great way to reach a new audience with positive messages about the outdoors and provide people more choices for getting out. Look through the social feeds of our national parks, for example and you see thousands of people celebrating their time in that setting or inviting a friend to go explore it with them. When we see other people enjoying an incredible outdoor experience, it nudges us to get outside as well.

Imagine if we could use technology to help more people fall in love with nature

Consider gaming, which traditionally kept people indoors and tethered to couches. That dynamic is changing too. Through augmented reality and geocaching, *Pokémon Go* inspired millions of gamers to head outside and explore their surroundings. There's also an app called

Nature Passport that encourages kids to have fun while exploring their back yards, city parks, beaches and other wild places.

Trends like these show that technology and the outdoors can coexist. Though it may seem counterintuitive, technology could help many more people get outdoors — if we use it the right way.



NICHE NATURE

Today, America's public lands belong to everyone whatever our religion or race, gender or country of origin. So why are some groups more visible in our shared home?

Imagine the outdoors with a closed door

The outdoors should be our largest level playing field, but in many ways and in many places it is not. The gender, racial and economic inequalities that impact America also affect our relationships with nature. Consider the iconic man on the mountain as the predominant image of outdoor exploration. He doesn't tell the full story. But many times, he is the only story told. There are countless compelling narratives of women and people of color in the outdoors, but they're far less present in media and the marketplace. If we depict the outdoors in a narrow way, we suggest some people aren't welcome in it.

Even iconic outdoor places can be a reminder of our worst collective selves. For instance, racism in America and reminders of its legacy can create painful relationships and highlight cultural tensions.

Economic realities also present real challenges. The shrinking middle class, the working poor and people living below the poverty line don't have easy access to discretionary time or money. So the cost of transportation and limited access to affordable gear could further separate the outdoor "haves" from the "have-nots."

An overly narrow definition of "outdoors" compounds these issues. There's no denying the majesty of our national parks, deserts and mountains. But if we only hold up the faraway places, we may miss the beauty of our nearby rivers, city parks and backyards.

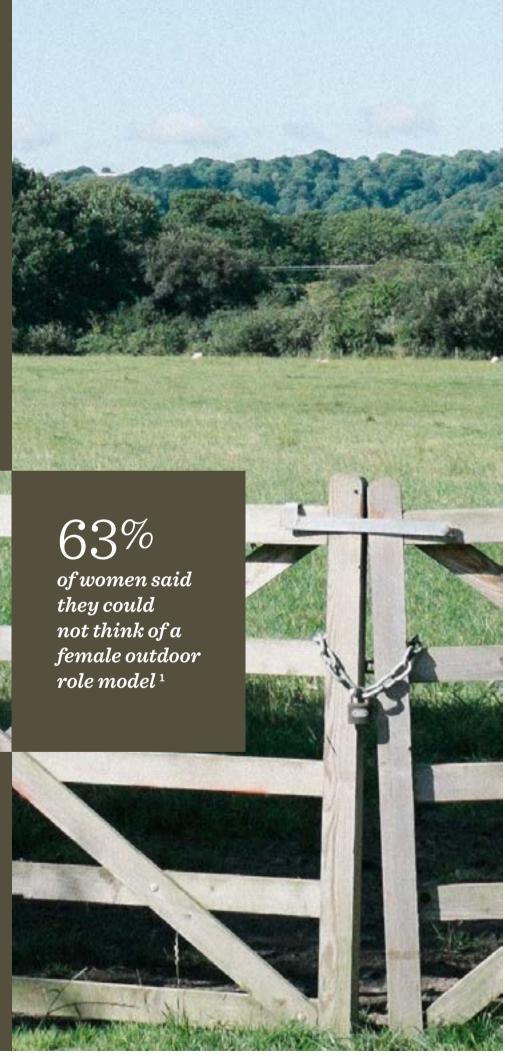
As America continues on its journey to create a more open, inclusive society, the outdoors must lead, not lag behind. Otherwise, participation in and stewardship of the outdoors could be consigned to the few, not the many.

"When you don't see yourself represented, it's easy to think you're not welcome." Participant at 2017 LGBTQ Outdoor

Summit

6 in 10

women say that men's interests in outdoor activities are taken more seriously than women's 2



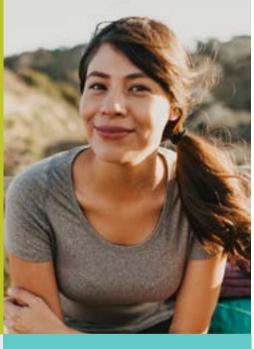
"The outdoors is for all and it is more empowering when we create opportunities and support one another's voices, welcoming each other into our respective stories."

JOSE GONZALEZ
Founder, Latino Outdoors





The number of minorities new to camping has doubled since 2014 5





In 2017, REI gave

\$1 Million

to partners
dedicated to
getting more
women outdoors

OUTDOORS

Imagine the outdoors bringing us all together

Imagine the outdoors becoming the largest level playing field on earth. We must work together to make the outdoors more equitable, more welcoming and more accessible to all Americans, especially now.

We are created equal – and we all need the outdoors, whether we know it or not.

REI is working to make the outdoors more open. In 2017, the co-op launched an initiative called Force of Nature, declaring the outdoors the largest level playing field on earth. Years in the making, the goal is to change the narrative, creating a larger sense of community, partly by investing \$1 million in partners dedicated to getting more women and girls outdoors.

A new generation of outdoor leaders also gives us hope for the future. Groups like Unlikely Hikers, Outdoor Afro, Natural Leaders Network, Camber Outdoors, GirlTrek, the YMCA Bold & Gold initiative, Latino Outdoors and OUT There Adventures, all REI partners, are helping change the face of outdoor participation.

The signs are promising. In 2016, the first all-African American team climbed Denali, America's highest peak.³ In 2017, the first national LGBTQ Outdoor summit was held in Seattle.⁴

The Declaration of Independence cites the unalienable right to pursue happiness and the outdoors brings people joy. So it's time every American has the opportunity to reap the benefits of a life outdoors and for the outdoors to become a place where everyone feels at home.



Turf WARS Imagine the outdoors exploited beyond repair

Does nature exist for our use or our abuse? Does it have inherent value? How we choose to answer these questions will have profound implications for the future of life outdoors.

Nature supplies irreplaceable services. It provides food, water and raw materials that fuel advancements in technology and medicine. It turns carbon dioxide into oxygen and soaks up other greenhouse gases. It gives us places for recreation and renewal and it serves as part of our preventive healthcare system. In 2014, Robert Constanza and a team of researchers put a price tag on these "free" services from nature. The estimated value to the global economy was \$142.7 trillion dollars. That's quite a debt.

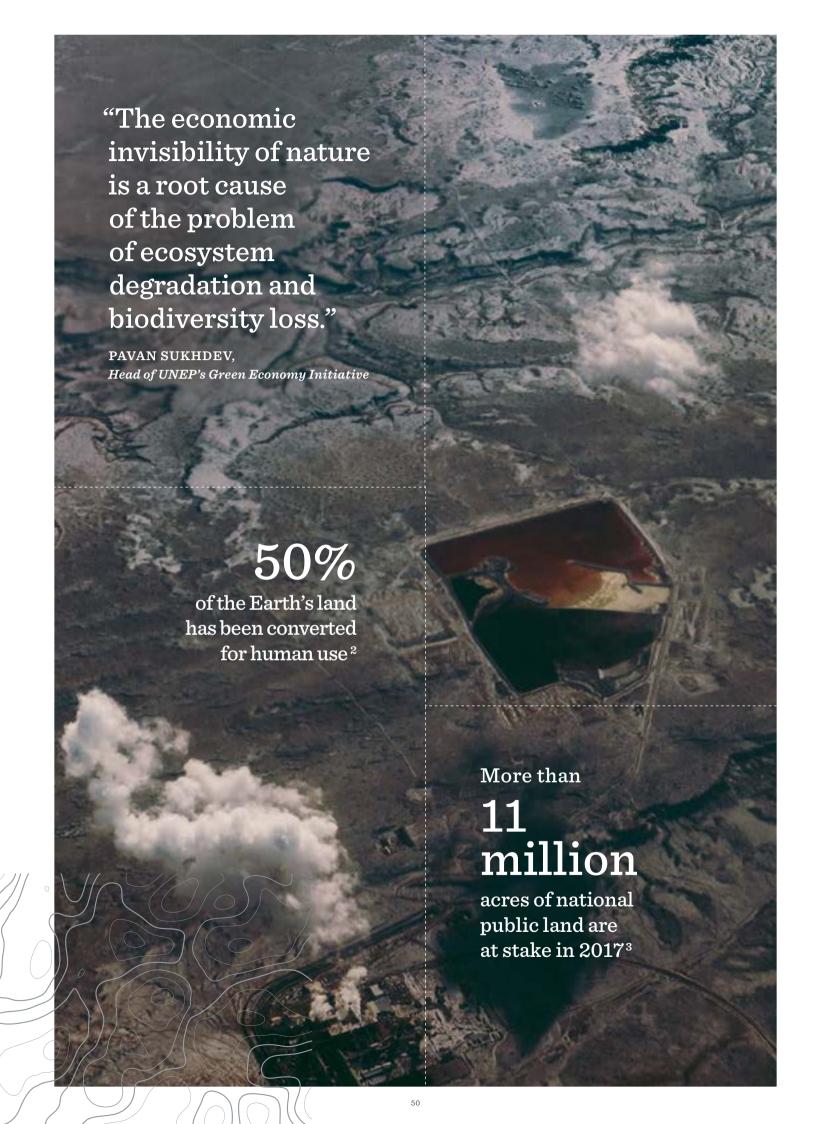
This value is not properly accounted for in our global or national economic system, and because we don't pay for these gifts, we're at risk of taking them for granted. That leaves the outdoors vulnerable.

Over the past 12 months, we've seen this play out in a series of public debates. The unprecedented, bipartisan outcry surrounding the Department of the Interior's review of 27 national monuments united more than 350 leaders of outdoor companies around the country. They argued for protecting our federal public lands.

But such land use debates aren't always easy to resolve. There's no shortcut to transitioning from an economy that's relied for centuries on fossil fuels to one that primarily uses renewables. At the same time, human-induced climate change is stressing the planet and generating its own, significant economic hardships. If nature is good for the economy long-term, how do we avoid undermining it?

At home in this big country, Americans have always been free to range, build and sometimes struggle against the land. But we are in danger of missing the trillion dollar point.

It's time to end the turf wars.





Natural ECONOMY

Imagine an economy that values nature's value

Imagine building an economy that accounts for and protects nature's value, rather than ignoring and eroding it. Imagine an outdoor industry that brings more sustainable jobs and prosperity to communities across America's beautiful spaces.

Money can't buy the benefits that nature provides us, and we should never seek to reduce the outdoors to just another line on a balance sheet. But in our modern economy, money talks. So if we want to give nature a fighting chance, we should assign it a more definitive value.

Today, breakthrough initiatives seek to do just that. The Natural Capital Protocol is developing a system that allows companies to build nature's value into their accounts. And Kering, the company that owns brands like Gucci and Puma, literally put nature on the balance sheet when it released the first Environmental Profit and Loss Statement in 2015.

Efforts like these contribute to growing evidence that environmental stewardship and economic growth are no longer competing forces. Growth that respects nature is booming. Good-paying jobs in wind and solar are growing at 12 times the rate of the U.S. economy.⁴ There are now at least 17 companies globally making \$1 billion or more a year from sustainability-minded products and services. REI is one.⁵

The outdoor industry is also proving that smart development around nature can cultivate local economies and create jobs. In December 2016, the Outdoor Industry marked a major milestone with the passage of the Outdoor Recreation Jobs and Economic Impact Act (REC Act), a law that instructs the U.S. Commerce Department to officially measure the outdoor industry's contribution to the nation's GDP. Early research estimates put the value at \$887 billion a year in consumer spending.⁶

The argument that pits planet against profit is out of date. An investment in our nation's natural capital is an investment in a thriving future.





Imagine a world without nature

If humans were once at the mercy of nature, today we're throwing nature out of balance. We now so dominate our planet that this era is named the Anthropocene¹—the age of man. We're proving to be the most dangerous species nature has ever encountered.

In 2017, the U.S. endured some of the most extreme weather events in recorded history. In September, while Houston dug out from Hurricane Harvey which dumped a year's rainfall in a day² - parts of the Caribbean and Puerto Rico were pummeled by

two category-four hurricanes.3 Florida was in and out of the bullseye. Meanwhile, across California and the American West, devastating wildfires raged.

Such events are caused by a range of factors. Scientists point out climate change makes them worse.⁴ They take an enormous human and economic toll. The financial burden of Harvey alone is estimated at \$180 billion.⁵ Although there are many heroes, homes are lost, people suffer and finances are ravaged.

Nature is also paying a steep price. Humans are changing the climate faster than nature can adapt, with devastating results. Expanding human habitats, deforestation and pollution of ecosystems, are additional ways our actions undermine nature.

Aside from the greater planetary threat, left unchecked, these impacts will change the American outdoors. Imagine Glacier National Park with no glaciers or Joshua Tree National Park with no Joshua Trees.

This is the path we are on. But it's not too late to change course.

We can address climate change and manage our economy in ways that bring us into balance with the world around us. 6 There's not a moment to waste.

4x increase in natural disasters per vear between 1970 and 20177





"Climate change has happened because of human behavior, therefore it's only natural it should be us, human beings, to address this issue."

BAN KI MOON, Former Secretary General, the United Nations



30,000 species per year (or three per hour) are being driven to extinction⁸

OUTSIDE

CHANCE

1/3

of climate emissions could be offset by stopping deforestation and restoring forest land¹⁴







Nature is

37%
of the solution to stabilizing our climate¹⁵

A shoe made out of thin air: In 2016, NRG made a shoe from CO₂ recycled from the air



"I call myself a stubborn climate optimist. And I invite you all to be stubborn climate optimists."

CHRISTIANA FIGUERES, Former Executive Director, UNFCCC

Imagine nature fighting climate change

The dominant climate narrative may be negative, but there are compelling reasons to believe that we can and will succeed in tackling climate change. Nature has a key role in making it happen and we have the opportunity to become a restorative force — for nature and for ourselves.

The news reports might be filled with doom and gloom, but there's a growing consensus that we can tackle climate change. Two thirds of the planet are climate optimists: individuals who believe a better future is possible. That's good news, because solving climate change starts with the belief that we can.

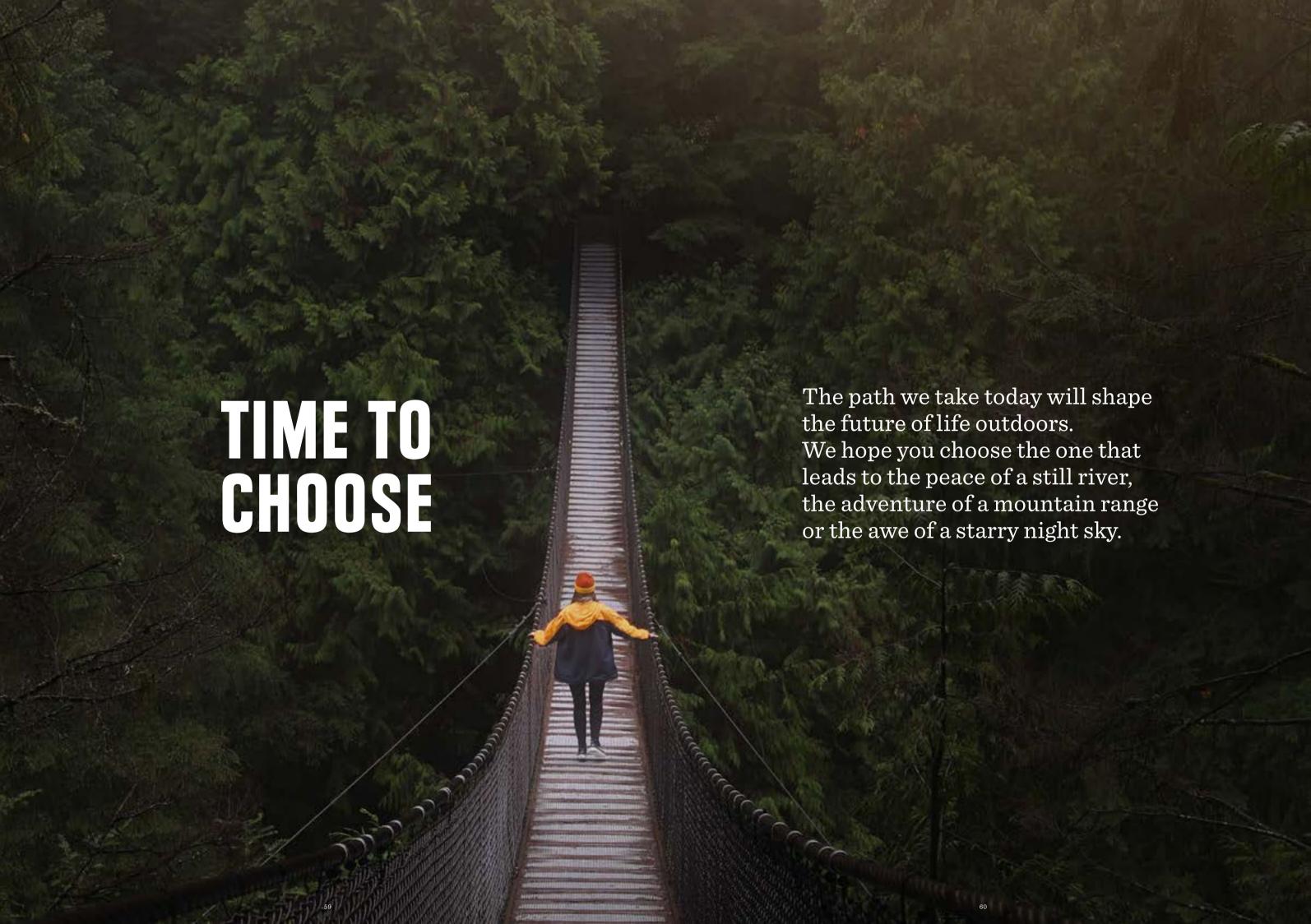
Experts also agree. Ninety-five percent of climate experts believe we can take back our climate, 10 and they're working hard to make it happen.

Many governments are playing their part. The Paris Agreement put over 190 countries on a path to limit global warming to 2 degrees Celsius by 2050. In the business community, more than 300 global companies are committed to science-based climate targets. Others are inventing brilliant low-carbon products.

We the people are learning that living sustainably often means living better. Solar power is better for the pocketbook than fossil fuels;¹² biking, walking and running are better for the heart than driving; and lower impact consumption, like renting or buying pre-owned products, is better for the bank account.

Crucially, nature won't just be a beneficiary; it will be a key part of how we succeed.¹³ Trees, grasslands and soils can become carbon sinks, sucking greenhouse gases out of the atmosphere and storing them in the ground. It's a beautiful possibility — that the outdoors becomes not the victim of, but part of the solution to, the biggest problem facing mankind today.

We need to go out and make more outdoors. Our future depends on it.



END NOTES

INTRODUCTION

1. John Spengler, Harvard School of Public Health, [online]

CHAPTER 1

LOST GENERATION

- Louise Jack, 'Children spend less time outdoors than prisoners, according to new Persil ad', Fast Company
- 2. Keller, 2005
- 3. Josh Levs, 2017. Whatever happened to 'go outside and play'? CNN [online]
- 4. The Wild Network. The barriers: fear [online]
- Study: Juster, F. Thomas et al, 2004. Changing Times of American Youth: 1981-2003, Institute for Social Research, University of Michigan. Child Development Supplement
- 6. Richard Louv, 2015. The right to walk in the woods: children's connection to the natural world should be considered a human right. Children and Nature Network [online]
- 7. Trevor Nace, 2017. Children who play outdoors are more likely to protect nature as adults, Forbes [online]
- 8. Katy Winter, 2013. Children today would rather read, do chores or even do homework than play outside, Daily Mail [online]
- 9. Katie Arnold, 2014. America needs a playtime intervention. Outside [online]
- 10. Zygmunt-Fillwalk and Bidello, 2005, as cited in The State of Play report, Robert Wood Johnson Foundation [online]

WILD GENERATION

- 11. National Institute of Health, Creativity in the Wild: Improving Creative Reasoning through Immersion in Natural Settings [online]
- 12. Hepp, A., Care.com [online]
- 13. Washington State Legislature, 2004. Report card on the status of environmental education in Washington State. [pdf]
- 14. Let's Move, Obama White House Archives. Every Kid in a Park Program will Reach Every School-age
 Child in the U.S. within 12 Years [online]
- $15. \ \ Christy Merrick, 2016. \ \underline{Nature-based preschools take the national stage}, Natural Start Alliance \\ [online]$
- 16. Katie Arnold, 2017. Want to get underprivileged kids outdoors? Send them to these summer camps,
 Outside [online]
- 17. The Nature Conservancy. Kids these days: why is America's youth staying indoors? [online]
- 18. Tara Parker-Pope, 2008. A dose of nature for attention problems, The New York Times [online]

CHAPTER 2

INDOOR SPECIES

- 1. John Spengler, Harvard School of Public Health [online]
- 2. The National Human Activity Pattern Survey (NHAPS), 2001. A resource for assessing exposure to environmental pollutants [online]
- 3. Carl Zimmer, 2015. The Next Frontier: The Great Indoors, The New York Times, [online]
- $4. \ John\,Spengler, Harvard\,School\,of\,Public\,Health, [online]\\$
- 5. Carl Zimmer, 2015. The Next Frontier: The Great Indoors, The New York Times, [online]

FREE RANGE HUMANS

 $\hbox{6. Outdoor Industry Association, 2017. Outdoor Foundation reports increase in outdoor participation. } \\ \hbox{[Press release]}$

61

- 7. National Park Service, 2017. Annual Visitation Highlights. [online]
- 8. Ciara Appelbaum, 2017. What it's like inside Airbnb's most popular listing, Business Insider [online]
- $8.\,Outdoor\,Foundation, 2017.\,Outdoor\,recreation\,participation\,topline\,report\,2017\,[pdf]$
- 9. National Park Service, 2016. Annual Visitation highlight [online]

CHAPTER 3

URBAN AMERICA

- 1. United States Census Bureau [online]
- 2. The Graying of Rural America, The Atlantic [online]
- 3. Resources for the future, 2009. The State of the Great Outdoors. [pdf]

WILD CITIES

- 4. Resources for the future, 2009. The State of the Great Outdoors. [pdf]
- 5. Faculty of Public Health, 2010.
- 6. High Line Factsheet [pdf]
- 7. Thorne, P., 2016. Ski slope to open on new Copenhagen power plant, The Guardian [online]

CHAPTER 4

ALL WORK, NO PLAY

- 1. The Outdoor Foundation, 2014. Outdoor Participation Report [pdf]
- 2. Project Time Off, 2017. The state of American vacation 2017 [pdf]
- 3. Adams, S., 2014. Only 25% of Americans Take their Paid Vacation, Forbes [online]
- 4. Project Time Off, 2017. The state of American vacation 2017 [pdf]
- $5. \ Adams, S., 2014. \ \underline{Only\ 25\%\ of\ Americans\ Take\ their\ Paid\ Vacation, Forbes\ [online]}$
- 6. Levine, J., 2015. What Are the Risks of Sitting Too Much? [online]
- 7. Brown, C. How Working Too Much Actually Decreases Productivity [online]
- $8.\ Adams, S., 2014.\ Only\ 25\%\ of\ Americans\ Take\ their\ Paid\ Vacation, Forbes\ [online]$
- 9. Project Time Off, 2017. The State of American Vacation 2017 [pdf]

HEAD SPACE

- 10. Williams, F. This Is Your Brain on Nature. [online]
- 11. Strauss, K., 10 Companies That Offer Unlimited Vacation Time, Forbes [online]
- $12. \,\, REI.\, REI\, Employees\, Get\, Outside\, and\, Play\, With\, Yay\, Days!\, [online]$
- 13. Marc G. Berman, et al The Cognitive Benefits of Interacting With Nature. [online]
- 14. The State of American Vacation 2017, Project Time Off [PDF]

CHAPTER 5

SICK AND SAD

- 1. Centers for Disease Control and Prevention, Chronic Disease Overview
- $2. \ \ Kelley, M., 2012 \ An anxiety epidemic is sweeping the US, Business Insider [online]$
- 3. Sam Meridith, 2017. US life expectancy is low and is now projected to be on par with Mexico by 2030, CNBC [online]
- 4. The New England Journal of Medicine, 2005. A Potential Decline in Life Expectancy in the United States in the 21st Century [online]
- 5. Jeremey Coles, 2016. How nature is good for our health and happiness, BBC Earth [online]
- 6. Trust for America's Health and the Robert Wood Johnson Foundation, The State of Obesity [pdf]

- $7. \ Harvard \, Medical \, School, \, National \, Comorbidity \, Study \, [online]$
- $8. \ Trust for America's Health and Robert Wood Johnson Foundation, The State of Obesity [pdf]\\$

END NOTES

NATURE RX

- 9. Greater Good Magazine, How Nature Can Make You Kinder, Happier, and More Creative [online]
- 10. It's Time for Doctors to Prescribe Outdoor Therapy, Outside Online [online]
- 11. Biomedical and Environmental Sciences, 2012, Journal of Cardiology, 2012
- 12. Keltner, D., 2014. Journal of Environmental Psychology [online]
- 13. Christopher Bergland, 2015. The power of awe: a sense of wonder promotes loving-kindness, Psychology Today [online]
- 14. The Surgeon General, 2017. Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities Executive Summary [online]
- 15. REI, 2017. National Study on Women and the Outdoors [online]
- 16. Yasmin Anwar, Rush of wild nature lowers PTSD in veterans, Berkley News [online]

CHAPTER 6

VIRTUAL WORLD

- 1. Timothy Egan and Casey Egan, Can the selfie generation unplug and get into parks?, National Geographic
- 2. Juana Summers, 2014. Kids and screen time: what does the research say? NPR [online]
- 3. Timothy Egan and Casey Egan, Can the selfie generation unplug and get into parks?, National Geographic [online]
- 4. Timothy Egan and Casey Egan, Can the selfie generation unplug and get into parks?, National Geographic [online]
- 5. Keck School of Medicine, USC. Too much screen time is raising rate of childhood myopia [online]

AUGMENTED OUTDOORS

6. Nat Geo's Instagram Account had 82 million followers in November 2016

CHAPTER 7

NICHE NATURE

- $1. \ REI, 2017. \ National study of women in the outdoors [online]$
- 2. REI, 2017. Force of Nature: Let's Level the Playing Field [blog]

OUTDOORS FOR ALL

- 3. Expedition Denali, 2013 [online]
- $4. \ \ REI, 2017. The First LGBTQ \, Outdoor \, Summit \, [online]$
- 5. Hugo Martin, More minorities are hiking and camping good news for makers of outdoorsy gear, LA Times [online]

CHAPTER 8

TURF WARS

- 1. Robert Constanza, 2014. Changes in the global value of ecosystem services; Global Environmental Change Volume 26 [online]
- 2. R Hooke, J F Martin-Duque, 2012. Land transformation by humans: a review, The Geological Society of America [e-journal]

63

 $3.\,REI, 2017.\,Submit\,your\,public\,lands\,comments\,to\,the\,department\,of\,the\,interior, REI.com\,[blog]$

NATURAL ECONOMY

- $4.\ EDF\ Climate\ Corps.\ Now\ Hiring: The\ Growth\ of\ America's\ Clean\ Energy\ \&\ Sustainability\ Jobs\ [pdf]$
- 5. Green Giants: How Smart Companies Turn Sustainability into Billion Dollar Business, E. Freya Williams and More Green Giants [online]
- 6. Outdoor Industry Association
- 7. Outdoor Industry Association
- 8. Outdoor Industry Association, 2017. The outdoor recreation economy [pdf]

CHAPTER 9

POST NATURE WORLD

- 1. Christian Schwagerl, 2011. Living in the Anthropocene: towards a new global ethos, Yale Environment 360 [online]
- 2. The Weather Channel, 2017. Historic hurricane Harvey's recap [online]
- $3. \ \ The Weather Channel, 2017.b \ Three \ category \ 4 \ hurricanes \ have \ made \ a \ U.S. \ landfall \ in \ 2017 \ [online]$
- 4. Justin Worland, 2017. The one number that shows why climate change is making hurricane season worse, Time [online]
- 5. Marianna Parraga and Gary McWilliams, 2017. Funding battle looms as Texas sees Harvey damage at up to \$180 billion, Reuters [online]
- 6. Mission 2020, 2017. 2020 the climate turning point [pdf]
- 7. The Economist's data team, 2017. Weather-related disasters are increasing. The Economist, [online]
- 8. Niles Elderidge, A field guide to the sixth extinction, New York Times Magazine [online]

THE OUTSIDE CHANCE

- 9. Climateoptimist.org, 2017. It's official: the world is optimistic about solving climate change. [online]
- 10. Interface: Let's Start the Climate Take Back [slideshow]
- 11. Science Based Targets http://sciencebasedtargets.org/
- 12. Michael J Coren, 2016. 2016 was the year solar panels finally became cheaper than fossil fuels. Just wait for 2017. Quartz [online]
- 13. The Nature Conservancy. Natural Climate Solutions. [online]
- $14.\ \ IUCN, Issues\ brief, forests\ and\ climate\ change;\ building\ resilience\ to\ climate\ change\ through\ forest$ $conservation, restoration\ and\ sustainable\ use\ [online]$

64

15. The Nature Conservancy. Natural Climate Solutions. [online]

THANKS TO THE FOLLOWING PHOTOGRAPHERS

Alex Knickerbocker, pg 50 / Anubhav Saxena, pg 56
Austin Neill, pg 57 / Caroline Hernandez, pg 9
Chanan Greenblatt, pg 21 / Djamal Akhmad Fahmi, pg 39
Eddie Kopp, pg 51 / Garland Lewis, pg 33 / Ian Froome, pgs 59-60
Jon Flobrant, pg 27 / Kees Streefkerk, pg 57 / Leonie Wise, pg 44
Lily Ivnatikk, pg 32 / Mariusz Prusaczyk, pg 56
Nicolas Jehly, pg 20 / Ryan Spencer, pg 56
Thomas Richter, pgs 47-48 / Tony Lam Hoang, pg 38

FUTERRA

Futerra is a sustainability and social purpose change agency. Our mission is to make sustainable development so desirable it becomes normal. Headquartered in New York, London, Stockholm and Mexico City, we're independent, mission-driven and majority female-owned. We combine strategic logic and creative magic to help our clients build better businesses, better brands and a better world.

#OptOutside

