This document is a collection of inspiring stories of diverse sustainability practitioners. They represent numerous fields of sustainability, such as conservation, environmental justice, sustainable business, and many more. Although their expertise is different, they have one shared goal: making this world more sustainable. With sustainability emerging as one of the most important questions in today’s world, these practitioners’ contributions will inspire many young adults looking to make a real impact in society.
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Conservation

CHICO MENDES, BRAZIL

“At first I thought I was fighting to save rubber trees, then I thought I was fighting to save the Amazon rainforest. Now I realize I am fighting for humanity.”

- Pioneer of the world’s first tropical forest conservation initiative led by the forest people
- Influential figure in the creation of the Amazon rainforest’s first extractive reserve in 1988
- A courageous environmental symbol who got assassinated for his dedication to conservation

Chico Mendes was born in 1944 in the rural community of Brazil where most people worked in plantations or forests. Having received no education, Mendes started working as a rubber tapper alongside his father. His job was to extract latex from trees, which was then used to make rubber. Mendes learned how to read at the age of 20 with the help of a former social justice activist who became a rubber tapper. By reading newspapers on Brazil’s political and social issues, Mendes became awakened by the injustice against Brazil’s land and its people.

Due to the decline in demand for rubber, a lot of rubber tappers were
being fired and expelled from the forest, which was then burned for cattle pasture. Angry at the continued injustice his people were facing, Mendes became the president of the Xapuri Rubber Tappers’ Union defending the rights of forest people. He advocated for the establishment of forest reserves from which a variety of products, such as rubber, fruits, and nuts, could be sustainably extracted. He gained international recognition when he and the laborers protested by standing in front of chainsaws and blocking bulldozers in the Amazon rainforest. Mendes started speaking at numerous conferences, one of which was the annual conference of the Inter-American Development Bank. There, he spoke to members of Congress about the threats that the Amazon rainforest and its people were receiving day to day and convinced both the IDB and the World Bank to endorse his idea of creating extract reserves. His wish came true in 1988 when Brazilian government established the first extractive reserve.

However, his work also resulted in serious backlash from ranchers who supported forest clearance. He received numerous death threats and was shot to death on Dec 22nd, 1988 while showering in his backyard. His murder sparked international outrage and massive protests and eventually led to the Brazilian government stop the subsidization of logging and ranching operations. They also established many more nature reserves, one of which is named after Chico—“Parque Chico Mendes.” Chico Mendes’ dedication to bring justice to his people and conserve our lands in spite of the threats is an important legacy that continues to inspire hundreds of thousands of people.

Sources:
- https://www.treehugger.com/who-killed-chico-mendes-1708804
- https://www.edf.org/chico-mendes-living-legacy
WANGARI MAATHAI, KENYA

“It’s the little things that citizens do. That’s what will make the difference. My little thing is planting trees.”

- A world-renowned environmental activist that empowers rural Kenyan women to conserve the environment through community-based tree planting while saving themselves from poverty
- Her movement cultivated over 20 million trees on farms, schools, and churches across Kenya
- The first woman in both East and Central Africa to obtain a doctorate degree and the first African Woman to receive a Nobel Peace Prize Laureate.

Sources:
- https://www.greenbeltmovement.org/wangari-maathai
- https://armarketinghouse.com/5-women-environmental-leaders/?cn-reloaded=1&cn-reloaded=1
“But we can only choose it this decade. Our parents did not have this choice. And for our children, it will be too late. So this is the decade and we are the generation.”

- Former Executive Secretary of the UN Framework Convention on Climate Change who got people to the table for the Paris Agreement
- An advocate who calls for every single person on Earth to do their part to combat climate change
- Named the top 100 influential leaders of the world by Times, the World’s 2016 50 Greatest Leaders by Fortune Magazine, a top 100 Global Thinker by the Foreign Policy Magazine

Christiana Figueres was born in San José, Costa Rica where her Father was the President of Costa Rica. As a daughter of the politically influential parents, she grew up witnessing both national and global level political matters firsthand. As a young adult, she completed a Bachelor's and Master’s degree in Anthropology at the Swarthmore College and London School of
Economics, respectively. Her passion in humanity guided her to devote many years in the public service industry before marrying her husband.

While raising her two daughters, she discovered that the once common golden toad went extinct. The realization that she was “turning over to her daughters - who were very, very young - a planet that had been diminished by our carelessness, by our recklessness” led her to work on the climate problem. While serving as a negotiator of the United Nations Convention on Climate Change from 1995 to 2010, she helped write the famous Kyoto protocol - an international treaty that commits 192 state parties to reduce greenhouse gas emissions.

Christiana Figueres is known for her role as the former Executive Secretary of the UNFCCC. She was appointed soon after the failed 2009 Copenhagen conference, which put her in the position of immense responsibility, and did not fail to impress the world when she “brought together national and sub-national governments, corporations and activists, financial institutions and NGOs to jointly deliver the historic Paris Agreement on climate change.”(“About Christiana”, 2020) This agreement, which enforces the participating countries to reach the goal of keeping the increase in global temperature to 3.6 degrees Fahrenheit above pre-industrial levels would not have been possible if Figueres and her team did not resolve the major negotiation obstacles.

Christiana Figueres’ work has not stopped since then as she is actively educates our generation about the alarming rates of climate change as both a writer and a speaker. Her recent book, “The Future We Choose”, emphasizes that we are “a few minutes before midnight” and that we need to act immediately. She believes in stubborn, relentless optimism to combat climate change. Assessing the current situation objectively and having the determination to take actions now, she believes, will guide humanity to the
right direction. Christiana persistently stresses that our generation is the generation to make things right, and that is only possible when everyone on our planet says, “Yes, we can do this, we’re going to work together on that.”

Source:

- https://www.loe.org/blog/blogs.html?seriesID=70&blogID=10
- https://www.ted.com/speakers/christiana_figueres
Environmental Justice

JORDAN MARIE DANIEL, US

“We’re putting ourselves out there, helping support other indigenous peoples and bringing them to a platform where their voices can be heard.”

- An indigenous runner and advocate who uses her popularity to bring awareness to injustice indigenous people face
- Ran the Boston Marathon with a red handprint over her mouth to symbolize the missing and murdered indigenous women
- A role model that empowers indigenous youths to make their voices heard in limitless ways

Born in the indigenous community of South Dakota, Daniel experienced racism for the first time when she moved to Maine at the age of 9. As a young, clueless child, she was shocked by the injustice she faced. Ever since then,
there has been a part of her heart dedicated to correct this unjustifiable issue in our society.

Her parents were both runners, so running was in Daniel’s life ever since her birth. She started competitive running as a kid, but it was never her passion. However, one event changed her perspective on running. An Olympic Gold Medalist Billy Mills suggested that she represents and raises funds for American Indian Youth at running events. There, she realized there was a way to connect her passion – bringing equitable justice to her beloved indigenous community – with her talent in running.

She started using running as a form of advocacy, which brought attention from indigenous communities as well as the general public. Daniel organized the Run for Water Rally, a two-mile to protest the Dakota Access Pipeline. Furthermore, during the 2018 San Diego Half Marathon and 2019 Boston Marathon, She ran with a face paint that symbolized the missing and murdered indigenous women. She dedicated each mile to a different woman – 26 women in all at the Boston Marathon. In all, these unconventional actions she took to represent her community brought awareness to the injustice against the indigenous people.

Aside from running, Daniel found a grassroots organization – Rising Hearts – dedicated to bringing racial, social, economic, and environmental justice to marginalized communities. She has led numerous projects that are facilitating the policy work to improve issues that minority groups are facing. Daniel is a talented runner, passionate advocate, and a capable leader who inspires the indigenous youths to speak up for a cause in limitless ways.

Sources:
- https://www.jordanmariedaniel.com/rising-hearts
- https://www.wbur.org/onlyagame/2020/01/03/rosalie-fish-jordan-daniel-marie-mmjw
“I feel like God intended us to be connected to the animals, connected to the plants,”

- Environmental and social justice activist who assists marginalized groups in Boston in the face of climate change
- Founding pastor of New Roots African Methodist Episcopal Church that provides a deep, safe community for diverse groups of people in Dorchester
- Recipient of the numerous awards, such as the Barr Fellowship, the Celtics Heroes Among Us, The Roxbury Founders Day Award, and the Boston NAACP Image award.

Rev. Mariama White-Hammond is an activist dedicated to bringing environmental justice to marginalized groups in Boston, particularly the Black community. Growing up under parents who were both active in the social justice arena, Rev. White-Hammond learned to speak up for a cause as she participated in a boycott against Coca-Cola and its investment in apartheid South Africa when she was just seven.
Her interest in social justice continued as she grew older as she did her undergraduate degree in human rights law and international relations at Stanford University. Upon graduation, she started organizing protests against social issues, like racial injustice and sexual harassment. She also ran a project called HIP-HOP, a youth organization empowering and providing safe space for young people of color living in a violent, high-crime neighborhood. Slowly, as she became involved in social movements, she became aware of the prevalence of environmental racism in Boston.

In 2014, she went on to pursue a Master of Divinity degree at the Boston University School of Theology after “being called by God to become a clergyperson.” There, she educated herself about the environmental justice issue in Boston - the city renowned for its segregation that is making the marginalized groups become more exposed to environmental threats. For this reason, she started advocating for environmental justice by joining her parents’ church in Jamaica Plain as an ecological justice minister where she spoke out on environmental issues. She pushed the African Methodist Episcopal church to devise climate change resolution. She lobbied against a natural gas pipeline that was scheduled to be placed in the West Roxbury neighborhood of Boston and was arrested as a result. She encouraged the activist group in Wellesley to put more emphasis on low-income communities and working class residents when they lobbied at the State house on climate issues. As a result, state Senators and Representatives introduced legislation to provide rate credits from solar power to low-income communities.

Rev. Mariama White-Hammond’s work in spreading awareness of lack of environmental justice and bringing more equitable changes have already had a lasting impact on our generation and communities, and it will continue until there are no groups left out in the face of environmental threats. She is a
living example that demonstrates that our voices will be heard as long as we speak, regardless of our backgrounds.

Source:
- https://www.barrfoundation.org/bios/mariama-white-hammond
- http://www.accessstrategies.org/rev-mariama-white-hammond
“We were at the back of the bus, metaphorically and literally, when considering our participation in a democratic society that prided itself on innovative thinking and bold initiatives that inform the American way of life”

- A storyteller, artist, and an avid traveller who quit acting career to bring justice to people whose voices are not heard in environmental organizations.
- The author of “Black Faces, White Spaces” that advocates for the increased participation of Black Americans in important environmental discussions and policy matters.
- An educator and public speaking expert who assisted the National Park Service in engaging in relations of reciprocity with diverse communities.

Source:
- [https://www.carolynfinney.com/about](https://www.carolynfinney.com/about)
“When you start peeling the onion and uncovering layers and layers of inequity that have been subsidized by government, it makes a lot of people uncomfortable.”

- The father of environmental justice and an award-winning author of eighteen books that address sustainable development, environmental racism, climate justice, smart growth, and regional equity.
- An avid advocate who influenced the federal government’s decision to deny the Louisiana Energy Services’ permit for a uranium enrichment plan affecting numbers of African Americans in the community.
- The first African American to win the John Muir Award from the Sierra Club.

Source:
- [https://drrobertbullard.com/biography/](https://drrobertbullard.com/biography/)
Environmental Health

RACHEL CARSON, US

“Man is a part of nature, and his war against nature is inevitably a war against himself.”

- Pioneer of the contemporary environmental movement who informed public about the harmful effects of pesticides on our ecological system
- Talented scientist and a writer who excelled in both fields and used skills to contribute to the common good

Born in a small rural community of Pennsylvania, Rachel Carson found her love for nature while exploring the forests and streams around her 65-acre farm. She was also a natural writer whose work was first published in a children’s magazine when she was just ten years old. Carson went to Pennsylvania College to study English but switched to Biology. After completing a Bachelor’s degree, she received a scholarship to pursue graduate
studies at Johns Hopkins University, an astounding achievement for a woman at the time. Upon graduation, her passion for writing and nature earned her position as an aquatic biologist at the US Bureau of Fisheries where she also served as an editor in chief of the service’s publications. In addition, she wrote several bestselling books, including “Under the Sea-Wind,” “The Sea Around Us,” and “The Edge of the Sea”, which all revolved around the view that human beings were different from other creatures in that they have the power to alter the nature, sometimes irreversibly.

The most controversial, impactful book Carson wrote was “Silent Spring,” which informed the public about the harmful effects of DDT and other pesticides on wildlife and humans. As a marine biologist, she witnessed the effects of toxic pesticides on fish and other wildlife and spent years across the US and Europe researching. When it was published, it immediately evoked huge backlash from the chemical industry that led a campaign to discredit Carson’s professional integrity. However, the federal government ordered a complete review of its pesticide policy where Carson was asked to testify. DDT was eventually banned from use, thanks to Carson, and more strict guidelines for pesticide were developed the following years.

Carson’s most significant legacy is that the public, for the first time, became aware that alteration of nature by humans can lead to destructive consequences. She was a pioneer who launched the contemporary environmentalism movement.

Source:
- https://www.britannica.com/biography/Rachel-Carson
- https://www.fws.gov/refuge/rachel_carson/about/rachelcarson.html
“I made a decision. It was not enough to just do the science but to also try to do something about directly applying scientific research to societal problems.”

- First Mexican Nobel Prize winner in Chemistry who discovered the harmful effects of the chemical CFCs on the ozone layer
- A tireless advocate who called for the protection of ozone layer in spite of the rejection from science community
- Influential in establishing the Montreal Protocol, which banned the use of ozone-destroying chemicals

Born in Mexico City, Molina demonstrated his talent in science early on when he converted a bathroom to his laboratory using toy microscopes and chemistry sets. His aunt, who was a chemist, was the biggest inspiration to Molina. He attended boarding school in Switzerland, went to the National Autonomous University of Mexico and the University of Freiburg, Germany to study Chemistry, and completed his PhD at UC Berkeley.

While working as a postdoc at UC Irvine, he and his partner – Sherwood Rowland – discovered that the widely used chemical CFCs were rising high into the atmosphere and destroying the thin layer of ozone that protects us from
the harmful ultraviolet radiation. Upon the publication of study, Molina and his partner were vilified by the chemical industry and shunned by other scientists. However, this did not discourage Molina from advocating for the protection of the ozone layer as he continued to communicate his work with the media and policymakers to bring recognition. His efforts started to become acknowledged when there were big news coverages on CFCs and the petitions asking federal agencies to ban CFC-containing aerosol sprays. Eventually, about 13 years later, the Montreal Protocol was amended, which phased out CFCs and other ozone-destroying chemicals worldwide.

Molina and his partner were a stepping stone in the movement to protect the ozone layer and thus combat climate change as now we have eliminated 97 percent of all ozone-destroying chemicals worldwide. Molina’s advocacy did not stop here. His air quality research resulted in the Mexico City Project, which conducted an in-depth analysis and improved the overall air quality in his beloved home city. What makes Molina one of the most important scientists in history is that he was not just a scientist but also an advocate. He tirelessly advocated for the protection of our environment at the expense of his whole career he worked his entire life for. His courage and determination are going to be forever remembered and inspire millions of people worldwide.

Source:
- https://www.nature.com/articles/d41586-020-03133-3
- https://miro.medium.com/proxy/0*agG24bd_5Qn1YSbl.jpg
MÁRIA TELKES, HUNGARY

“Sunlight will be used as a source of energy sooner or later . . . Why wait?”

- Hungarian-born American scientist, “the Sun Queen”, who invented the solar still, solar-heated home, and solar oven
- National Inventors Hall of Fame inductee, recipient of the National Academy of Sciences Building Research Advisory Board award and the Charles Greeley Abbot Award from the American Solar Energy Society, and the first recipient of the Society of Women Engineers Achievement Award.

Born in 1900, Mária discovered her interest in science at an early age as she built her first chemistry lab when she was just 10 years old. She earned her PhD in physical chemistry at the University of Budapest before immigrating to the United States in 1925, where she made significant contributions in science,
such as creating a photoelectric device that recorded brain waves and instruments that converted heat into electric energy. However, she did not begin her work in solar energy until 1939 when she participated in the Solar Energy Conversion Project at MIT. There, she invented a solar still that vaporized seawater and recondensed it into drinkable water, which was included in military’s medical kits and saved lives of thousands of soldiers. She also created a new type of solar heating system that converted solar energy to chemical energy, which resulted in the building of the world’s first solar-heated residence – the Dover Sun House – in Dover, Massachusetts. Later in her career, she invented a solar oven that could be inexpensively made and used by people in any geographic location.

Her legacy continues today as renewable energy has become one of the most important elements that could mitigate the ongoing threats of climate change. Solar panels, which we can see easily from roofs of millions of American homes, would not have existed without the work of Mária Telkes. As a woman in male-dominated science fields, she showed the world that women are just as capable and intelligent.

Source:
https://www.britannica.com/biography/Maria-Telkes
https://alltogether.swe.org/2019/03/maria-telkes-biophysicist-inventor/
https://www.youtube.com/watch?v=hk8g1KqyjpW&ab_channel=AMPtv
“But changing the world goes well beyond serving customers – it’s also about serving society.”

- The first woman CEO of the General Motors, one of the world’s best-run car companies and the US’ most sustainable automobile manufacturer
- A die-hard fan of GM at birth whose first car was Chevy, first job was at GM, and education was done at the GM-affiliated university, General Motors Institute
- Named the “Most Powerful Woman” by Fortune magazine in 2015 and 2017 and “100 Most Influential People in the World” by Times; Inductee of the Hall of Fame of the International Women’s Forum

Born in Royal Oak, Michigan, as a daughter of a die-maker at the GM manufacturing facility, Mary Barra was a “GM lifer” at birth. Her first car was a Chevy. Her first job was inspecting Fender panels at GM co-op program, which helped her pay for college – GM institute. Upon graduating with an engineering degree, she started working at the company as a senior engineer.
but was recognized for her management potential and sent to Stanford Business school to pursue an MBA.

After graduate school, Mary held a variety of positions at GM, such as GM Manager responsible for manufacturing planning and executive assistant to the CEO, that advanced her to the executive committee. One of the most important roles she held was executive vice president of Global Product Development. Although she had little experience in designing or developing vehicles, she utilized 20 years worth of knowledge she earned in the industry to direct the product development of the company’s most important products. The result was an improved quality and reputation of GM’s vehicles that alleviated the company’s financial struggles at the time.

A couple of years later in 2014, Mary Barra was appointed as the CEO of General Motors. As the first-ever female head of an automobile manufacturer, she has demonstrated not only leadership skills but also her dedication to sustainability efforts. In February of 2020, She announced accelerated energy goals, including the sourcing of 100 percent renewable energy in GM U.S. facilities by 2030, and globally by 2040. GM recently signed a power purchase agreement for a 180-megawatt solar project, which makes the company the largest offtaker of renewable power in the manufacturing sector. Her ambitious plan of making GM an all-electric automaker is also well underway. Under her leadership, GM is becoming the most sustainable automaker in the US.

**Source:**

“What I love is that I’m there at 11 o’clock at night, and you can see another entrepreneur sitting on the other side of the room also there. You know there’s someone else who feels passionate about the thing you’re doing.”

- CEO of Greentown Labs, North America’s largest cleantech startup incubator with 170 companies
- PhD in physical chemistry from the University of Wisconsin–Madison and MBA from MIT
- Recipient of the “Decade of Influence Award” by the Northeast Clean Energy Council and “Women Who Mean Business Award” and the “Power 50 Executive Award” from the Boston Business Journal

Emily Reichert grew up in Phoenix, Arizona with her parents who were a physician and therapist. Because of this, she found her interest in science early on and earned a PhD in Physical Chemistry. Her perseverance in academics can be attributed to her parents who always encouraged her to pursue what she felt passionate about, regardless of what others say.

After graduating with a PhD, Emily worked as a chemical industry consultant, helping businesses solve problems and earn more profits. While pondering about ways to use her skills for a better cause, she was introduced to
Green chemistry and became the Director of Business Operations at the Warner Babcock Institute for Green Chemistry where she helped start-up companies minimize the environmental impact of chemical products. Then, she went on to pursue an MBA at MIT, where she met four other MIT educated cleantech entrepreneurs working in the basement of a factory building in South Boston. She was struck by the energy and passion that the entrepreneurs had for their companies and started to assist with executive tasks, such as expanding the work space to incorporate an increasing number of cleantech start-ups that were co-sharing the space. In 2013, she officially signed on as a CEO of Greentown Labs, a cleantech start-up incubator.

Greentown Labs is now the largest cleantech incubator in North America with over 170 companies incubated. Since its establishment in 2013, it has supported more than 200 start-ups that have created around 2,800 jobs. Its three buildings that make up more than 100,000 square feet provide everything that cleantech start-ups need: a lab and office space, machine shop, industry connections, PR and marketing services, and, most importantly, a community for the entrepreneurs that share the same passion and love for sustainability.

**Source:**
- ClimateTech2017-Reichertimage-superJumbo.jpg
- https://www.jobswithimpact.com/emily-reichert-interview
- https://medium.com/boston-speaks-up/meet-greentown-labs-ceo-dr-emily-reichert-987e06fa6597
"The long-term goal is to be able to recycle all of the city of San Jose’s — and other cities' — polyethylene plastic."

- The founder of BioCellection that invented the method to break down unrecyclable polyethylene film plastics using chemicals
- A fearless young leader who challenged the way the world dealt with waste at the age of 21
- An avid advocate working with the city of San Jose to implement their innovation to the already existing waste management system

Source: