THE NEW GREEN JOBS

New career opportunities are emerging that can benefit your wallet and the environment. Here's how to find them and what you'll need to know to land them.

BY LINDA KESLAR
ILLUSTRATIONS BY GICA TAM

FROM UNPREDICTABLE WEATHER patterns that threaten food production to rising sea levels that risk disastrous flooding, the impacts of climate change are global and unprecedented in scale.

But don't despair: Governments, business and labor leaders, and citizen warriors are making a big push for a greener world.

The Biden administration, for example, has made tackling the climate crisis a top priority, setting ambitious goals such as powering the federal government by 100% carbon-pollution-free electricity by 2030. Meeting this and other targets outlined in policy proposals will require a drastic expansion of the clean energy workforce.

And with this transformation comes the promise of new jobs.

Defining Green Jobs

IN THE SIMPLEST sense, a green job is one that provides services for or benefits the environment in some way.

The government's Occupational Information Network classifies more than 200 occupations as being "green" (across more than 900 categories), including straightforward roles like conservation worker and climate change analysts to less obvious ones like nanosystems engineer and biofuels production manager. However, conventional occupations such as plumber and social worker are also on the list.

"A green job refers to any job that contributes to preserving or enhancing the well-being, culture and governance of current and future generations, as well as regenerating the natural resources and ecosystems upon which we all rely," says Amanda Novello, an economic policy consultant who specializes in the green economy and labor markets.

In other words, it's not just about the environment, but also supporting those who live in it.

Currently, green jobs constitute a small but significant part of total employment. More than 30 million people were employed in jobs considered green—about one-fifth of the total workforce—prior to the COVID-19 pandemic.

Rakesh Kochhar, a senior researcher at the Pew Research Center who has studied trends in job skills, including jobs in the green economy, expects an upward trajectory to continue despite the disruption in employment rates due to the pandemic. But there isn't enough data yet, he says, to determine just how large the pendulum shift toward green jobs may be in the coming years.

What is clear, however, is that this might be the opportune time to consider pursuing a green

career—for those new to the job market and for mid-career professionals looking for something that aligns with their values.

"For some people, the big question is about what career to shift into," says Debra Rowe, a professor of energy management and renewable energies at Michigan-based Oakland Community College and president of the U.S. Partnership for Education for Sustainable Development. "My advice? The green economy is in need of workers, so why not start there and help the planet while you're at it?"

Sectors On the Rise

SOME OF THE fastest growing jobs in the United States right now are those that prioritize caring for the planet, according to the U.S. Bureau of Labor Statistics. Occupations related to solar, wind and energy efficiency are booming, projected to grow by more than 15% in the next decade—which is more than double the expected rate for total employment growth. An analysis by the National Solar Jobs Census, for example, estimates that the U.S. solar workforce will need to nearly quadruple from its current 231,000 workers to more than 900,000 by 2035 to

reach the Biden administration's carbon free electricity target.

Other sectors commonly regarded as "green" are also thriving. Sales of organic food in the United States, for example, rose 12.8% to $56.4 billion in 2020, the latest statistics available, which has implications for related jobs—from farmers and food scientists to preparation workers and service managers.

"There are hundreds of types of jobs where sustainability competencies are increasingly valued," Rowe says. For example, the fashion industry consumes more energy than all international flights and maritime shipping combined, pushing the industry to develop more eco-friendly business models and practices. Therefore, salespeople, designers and stylists with knowledge around sustainable fashion and pollution prevention are in higher demand, according to LinkedIn.

With companies also turning an eco-conscious eye toward their practices, there's a growing need for positions devoted to environmental, social and governance (ESG) considerations, such as tracking operational carbon emissions, addressing fair trade supply chains and diversifying the workforce. This past summer, for example, the consulting firm PwC announced its plans to invest $12 billion over five years to create 100,000 new jobs aimed at helping its clients grapple with climate and diversity.

How to Get a Green Job

WHILE EMPLOYERS ARE competing for workers, workers are still competing for jobs, with one survey showing that 80% of young professionals would like to work in green jobs. But having the right skills will often be the deciding factor in whether you get them or not.

The good news? There are tons of resources available to acquire the education and training you need to land a career in the green economy.

Higher education is one place to start. An increasing number of community colleges, four-year colleges and graduate schools are integrating sustainability topics into their curriculums—with new majors, minors, degrees, certificates and continuing education programs to choose from. In 2018, more than 1,800 environmental and sustainability programs existed in higher education, according to a study by the National Council for Science and the Environment. And the number continues to increase.

"The interest is there, but many students don't know where to start," says Katie Kross, managing director of the Center for Energy, Development and the Global Environment at Duke University's Fuqua School of Business, which has offered a sustainability curriculum for more than a decade. "Plus, there are many ways you can incorporate your passion for sustainability or ESG in a career, even if the title of that career doesn't necessarily have those words in it."

If you're not ready to go back to school, the green energy sector has "new collar" jobs that don't require a traditional four-year degree and instead allow workers to gain skills through on-the-job training or apprenticeships.

And for C-suite professionals who already specialize in sustainability? There's a "talent war" underway, says Ellen Weinreb, founder of the Weinreb Group, a San Francisco-based firm that places full-time sustainability and ESG leaders at global companies. A survey conducted by Weinreb's firm showed that there were more chief sustainability officers (CSOs) recruited last year than the previous three years combined, and the number of CSOs has more than tripled over the past decade—with the number of women in those roles nearly doubling.

"While there are many jobs out there and we, as recruiters, are busier than ever, the candidates I'm placing average a decade or more of experience and are often considering

multiple offers at a time." If that sounds like you, you're in luck. But if not, be prepared for some fierce competition.

Where Jobs Are Declining

WHILE A TRANSITION to a sustainable economy is creating an explosion in new jobs, it's also causing a reduction of old ones. LinkedIn, for example, reported that there was a dramatic shift away from oil and gas jobs prior to the pandemic, from 2015 to 2020, and that the mining and oil and natural gas industries are likely to continue to contract.

The disappearance of these jobs and others is placing an urgent focus on helping people in the workforce upskill and reskill. Indeed, state and federal initiatives are already underway to address the workforce supply and demand imbalance (and skill mismatch) that a green economy poses.

In December 2021, for example, the Interstate Renewable Energy Council and the National Council for Workforce Education announced the creation of the National Clean Energy Workforce Alliance, an initiative to "improve clean energy education, training and job placement efforts and outcomes."

"The Alliance asks employers to tell us what they need and then educators are informed so they can teach those green skills—for technicians, marketing, salespeople, managers, accountants, financiers and engineers," says Rowe, a facilitator of the organization. "We need to streamline the hiring process because green economy companies are moving as fast as they can to implement solutions."

And Rowe and other experts emphasize that there's no reason to be left behind. "Every single job can be a green job if you bring a sustainable perspective to it," Rowe says.

LINDA KESLAR *is a metro-Atlanta-based writer who has written for* The New York Times, The Washington Post *and more.*

7 GREEN JOBS

Here are some examples of green jobs to consider—for your wallet and for the planet.

Wind Turbine Service Technicians

- **2020 MEDIAN PAY:** $56,230
- **EDUCATION:** Postsecondary nondegree, on-the-job training
- **PROJECTED GROWTH 2020-2030:** 68%

Also known as "windtechs," a wind turbine service technician installs, maintains and repairs wind turbine towers. They also test and troubleshoot electrical, mechanical and hydraulic components of the turbine tower to identify any operational issues.

Solar Photovoltaic Installers

- **2020 MEDIAN PAY:** $46,470
- **EDUCATION:** High school diploma or equivalent, on-the-job training
- **PROJECTED GROWTH 2020-2030:** 52%

Solar photovoltaic installers, also known as PV installers, assemble, set up and maintain rooftop (or other) systems that convert sunlight into energy.

Environmental Scientists

- **2020 MEDIAN PAY:** $73,230
- **EDUCATION:** Bachelor's degree, sometimes a master's
- **PROJECTED GROWTH 2020-2030:** 8%

Environmental scientists and specialists use their knowledge of the natural sciences to protect the environment and human populations—for example, reducing waste by providing scientific or technical guidance to governmental agencies, environmental programs, industries or the public. Duties can include collecting and analyzing environmental data; implementing environmental technical standards, guidelines and policies; and developing strategies or codes of practice for environmental management.

Environmental Engineering Technologists and Technicians

- **2020 MEDIAN PAY:** $51,630
- **EDUCATION:** Associate's degree
- **PROJECTED GROWTH 2020-2030:** 8%

Environmental science and protection technicians monitor the environment and investigate sources of pollution and contamination, including those affecting public health. Their goal is to aid environmental engineers in developing solutions to control, prevent and mitigate damage caused by pollution and other environmental problems. They also may inspect facilities for compliance with regulations governing substances such as asbestos, lead and wastewater.

Conservation Scientists and Foresters

- **2020 MEDIAN PAY:** $64,010
- **EDUCATION:** Bachelor's degree
- **PROJECTED GROWTH 2020-2030:** 7%

Conservation scientists and foresters manage, improve and protect the country's natural resources. They work with private landowners and federal, state and local governments to find ways to use and improve the land while safeguarding the environment.

Sustainability Specialists

- **2020 MEDIAN PAY:** $77,420
- **EDUCATION:** Bachelor's degree, often a master's
- **PROJECTED GROWTH 2020-2030:** 10%

Companies are hiring sustainability specialists to develop goals, initiatives and strategies around energy usage, natural resource usage, waste generation and recycling for their facilities, operations, supply chains and workforce.

Agricultural and Food Scientists

- **2020 MEDIAN PAY:** $68,830
- **EDUCATION:** Bachelor's degree
- **PROJECTED GROWTH 2020-2030:** 9%

Agricultural and food scientists play an important role in maintaining and expanding the nation's food supply. Duties can include conducting research and experiments to improve the productivity and sustainability of field crops and farm animals; creating new food products and developing new and better ways to process, package and deliver them; and studying and researching ways to improve soil composition related to plant growth.