Milliman

SOCIAL IMPACT REPORT

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WELCOME TO MILLIMAN'S SOCIAL IMPACT REPORT

This report shares highlights and ongoing progress in our fourth year as a signatory of the United Nations Global Compact.

With this report, I affirm Milliman's ongoing support of the 10 Principles of the UN Global Compact on human rights, labor, environment, and anti-corruption. Milliman has also committed to advance the UN's Sustainable Development Goals, which aim to unite global stakeholders to end extreme poverty, fight inequality and injustice, and protect our planet by 2030.

At Milliman, our primary focus is on the following goals because of their alignment with our mission: #3 Good Health and Well-Being, #4 Quality Education, and #8 Decent Work and Economic Growth.

The past year was notable for progress on key milestones to advance carbon reduction goals, create a more diverse and inclusive workforce, and reduce financial risk for people globally.

Advancing our carbon reduction strategy

We set validated science-based targets to reach net-zero emissions across the value chain by 2040. We commit to reduce absolute scope 1, 2, and 3 GHG emissions 46.2% by 2030 from a 2019 base year, and to reduce absolute scope 1, 2, and 3 GHG emissions 90% by 2040 from a 2019 base year. These targets have been approved by the Science Based Targets initiative.

Driving diversity

Through our employee resource groups, and global and localized DEI committees, we continue to enhance engagement and recruitment resources to attract and retain a more diverse workforce. We've also expanded our scholarship, mentoring, and internship programs.

Creating change through our work

Milliman is providing industry-leading expertise as insurers look to understand disparate impact—essentially, rooting out unintentional bias in AI and predictive models.

We're working on innovative solutions, including SendVia, a product that helps people provide financial support to their loved ones internationally in the event of health emergencies or natural disasters. Through our consulting and technology, we're also strengthening actuarial resources globally to increase climate resilience.

Building risk management capacity worldwide

Milliman and the United Nations Development Programme (UNDP) have teamed up on a global initiative to build actuarial expertise in developing countries. These efforts will help these countries predict and prepare for risks, enabling insurers, pension funds, and social security administrations to better protect people's health and financial well-being.

Living our mission through employee-led philanthropy

The employee- and retiree-funded Milliman Giving Fund supported transformative programs, including math tutoring, clean water and sanitation, and communities and health systems that address cancer and chronic illnesses.

In 2022, we felt compelled to offer emergency assistance to alleviate suffering due to Russia's invasion of Ukraine. We partnered with the Seattle Foundation to quickly identify and evaluate two reputable organizations with strong networks in the area offering medical and humanitarian aid.

In our work and in our partnerships, we continue to aim high with our clients to improve the health and financial well-being of people everywhere.

Best regards,

Dermot Corry
President and CEO

OUR MISSION

Our mission is to serve our clients to protect the health and financial well-being of people everywhere.

Every day, in countries across the globe, Milliman works with clients to improve healthcare systems, manage emerging risks, and advance financial security so millions of people can live for today and plan for tomorrow with confidence.

A store owner who sells fertilizer and other supplies to local farmers in Mityana, Uganda. She received funding for her business through Opportunity International's Opportunity Zone program, funded by the Milliman Giving Fund.

THE 10 PRINCIPLES of the UN Global Compact

Jacob Barry (right) and David Applegate (left), Milliman, march in Chicago's Pride parade.

As a signatory of the United Nations Global Compact, Milliman incorporates the UN's 10 Principles into its strategies, policies, and procedures—affirming our culture of integrity.

Milliman has four ways to ensure all employees are aware of and compliant with our standards:

- Each employee reviews select policies at the outset of their employment and all policies are available on our intranet to all staff. The chief compliance officer emails all employees when policies are updated.
- Education and training are available through Milliman's e-learning platform, Milliman University. Specific training, such as anti-harassment, is required annually.
- A peer review process is in place to assess risks, compliance, business effectiveness, and ethics for each line of business within Milliman. The firm also has an internal audit process that reports to the Audit Committee of our board.
- The chief compliance officer provides requisite reporting on an annual basis.

Human Rights

Principle 1

Businesses should support and respect the protection of internationally proclaimed human rights.

Milliman policies pertaining to human rights are reviewed and affirmed on an annual basis.

Principle 2

Make sure that they are not complicit in human rights abuses.

Milliman is committed to supporting and upholding the provision of basic human rights to all individuals globally.

Our operations are governed by policies and processes that ensure that work is high quality and provided in a legal and ethical manner. Specialized committees oversee various business areas, including a Social Impact and Sustainability Committee, and an Enterprise Risk Management Committee.

The Social Impact and Sustainability Committee directs and provides oversight of Milliman's social impact and sustainability program. It sets annual strategic direction, priorities, and the budget for the firm's social impact initiatives.

The Enterprise Risk Management Committee (ERMC) is responsible for ensuring that all laws, rules, regulations, and Milliman policies are followed globally. Our Global Compliance Group (GCG) executes this responsibility. Our compliance program conducts a global risk assessment that identifies the regulatory risks associated with Milliman's services. It includes key elements outlined by the Department of Justice and the U.S. Sentencing Guidelines, including policy oversight, training, monitoring, and reporting.

The GCG reviews this risk assessment on an annual basis and oversees compliance with all Milliman policies. Any employee can report potential violations to the GCG for investigation. If a severe issue arises, the chief compliance officer may report it to the board. The chief compliance officer can report potential issues to all executives, officers, and/or directors.

The GCG reports on a periodic and as-needed basis to the Enterprise Risk Management Committee on the risk assessment, policy review, training, monitoring activity, and potential violations.

Training and acknowledgment

We inform each employee of their human rights obligations. Training is available on Milliman University on topics including anti-discrimination and anti-bribery.

Auditing standards

The GCG monitors policies for effectiveness and compliance and makes changes or additions to policies as needed. Focus areas are determined through the risk assessment completed by the GCG, which audits these annual focus areas and reports critical findings to the ERMC.

Handling policy violations

Potential violations may be reported in several ways as outlined in the Whistleblower and Anti-Retaliation Policy detailed in the Employee Handbook and on our intranet. Once a violation is reported, a senior employee performs an investigation. If a violation of law or policy is confirmed, disciplinary action is based on the nature and severity of the violation and may include termination of employment and/or reporting to law enforcement agencies.

Annual report to board

The Social Impact and Sustainability Committee reports annually to the board on developments in the program and on ongoing initiatives.

United Nations sanctions

Milliman is committed to complying with the United Nations Security Council Sanctions (whenever these apply to its operations). The firm will not sell products or services to individuals, companies, or entities in the nation states on the UN Sanction lists. We have included this as part of our Social Impact and Sustainability Statement and Policies.

Labor

Principle 3

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Milliman recognizes there are laws associated with freedom of association and the right of collective bargaining in various locations where we do business. Milliman ensures that employees' rights related to these laws are protected.

Principle 4

The elimination of all forms of forced and compulsory labor.

Principle 5

The effective abolition of child labor.

Modern slavery/child labor

Modern slavery, human trafficking, and child labor are fundamental violations of a person's rights and freedoms. These practices are strictly prohibited in any Milliman office. Milliman does not use or allow the use of forced or compulsory labor, modern slavery, servitude, human trafficking, or child labor in its direct operations, its indirect operations, and its supply chain as a whole. We maintain a zero-tolerance policy, and any vendor found violating this policy will be terminated immediately.

Principle 6

The elimination of discrimination in respect of employment and occupation.

Discrimination

With the full support of our board of directors and executive staff, we're committed to protecting the rights of all applicants and employees. We recruit, train, promote, and consider qualified applications for employment in all positions without regard to age, ancestry, citizenship status, color, creed, familial status, genetic information, marital status, national origin, political ideology, race, sex, sexual orientation, gender identity, status as an individual with a disability, or veteran status, and we prohibit discrimination against any individual or any other characteristic protected by law.

Labor concerns

Milliman's Unlawful Harassment Policy states that all employees are responsible for ensuring that our workplace is free from all forms of unlawful discrimination and harassment. Employees are required to avoid any action or conduct that could be viewed as

harassment, including unwelcome sexual advances, offensive conversations or comments, requests for sexual acts or favors, or other verbal or physical conduct of a harassing nature.

Employees must also avoid any action or conduct that could be viewed as violent or threatening behavior toward a coworker, coworker's family, supervisor, or visitor.

Labor concerns are protected by three policies/trainings at Milliman that all employees must abide by and are a condition of employment: annual Anti-harassment Training, annually attesting to the Milliman Code of Conduct, and attesting to the Employee Handbook upon their hire. The Code of Conduct contains five key areas: values, values in action, reporting misconduct, and response. Values in action encompasses:

- Responsibilities
- Equal opportunity
- Unlawful harassment and discrimination
- Conflicts of interest
- Illegal activity
- Appropriate use of technology and company resources
- Privacy rights and obligations
- Health, safety, and well-being

The Code of Conduct also details critical areas and methods of response to report violations, such as our whistleblower policy and our commitment to non-retaliation.

Diversity, equity, and inclusion

Our diversity strengthens our firm and drives innovation. In 2022, Milliman hired Dr. Christal Morris, as chief sustainability and DEI officer, who leads our firmwide diversity efforts.

An active Diversity, Equity, and Inclusion Committee made up of leaders throughout Milliman drives efforts in our firm to increase awareness and build a more diverse workplace.

As of June 2023, more than 1,000 employees have influenced policies, developed leadership skills, and contributed to diversifying Milliman's employment pipeline through membership in our seven ERGs under Morris' oversight. They are the Black Employee Resource Group (BERG), PRIDE ERG, Unidos ERG, Diversity, Recognition, Empowerment Affecting Ability@Milliman (DREAM) ERG, MilliWomen ERG, Military and Veterans ERG, and Asian ERG.

Military and Veterans ERG (MVERG) — In 2022, the MVERG worked to help get recognition for Milliman's longstanding effort to hire and support veterans and their families, which earned the firm 2023 designations as a Military Friendly® Company, Military Friendly® Spouse Employer, and for its Military Friendly® Supplier Diversity Program. Military Friendly companies are committed to creating sustainable economic benefits for the military community, including employees, spouses, families, consumers, and the supply chain.

Black ERG (BERG) — The BERG has developed relationships with historically black colleges and universities with diverse STEM programs, created a playbook with guidance on networking, identifying, and communicating with diverse talent, and formed a recruiting pipeline that highlights diverse candidates.

Employees are encouraged to display the pronouns they identify with in their email signatures or their nametags at internal forums—e.g., "they, them;" "she, her;" "he, him." It's part of our commitment to a culture of respect and inclusion and sends a clear sign of solidarity and support to all employees.

We promote equality and diversity in the workplace through anti-harassment training and classes about cross-cultural considerations, unconscious bias, understanding gender identity, and creating a more inclusive workplace via Milliman University.

Professional development

We strengthen our company by encouraging employees to grow and build new skills to support their career development and cultivate the next generation of leaders. Our Professional Development Committee identifies and explores opportunities to help employees advance professionally and develop technical and consulting skills that supplement their expertise.

Milliman also has robust learning and development resources and a focus on providing advancement opportunities for employees.

- Milliman Leadership Academy, an intensive leadership development program, has served over 90 employees.
- Milliman Mentorship Program, which advances professional and career development, has served over 500 employees.
- Milliman University offers thousands of live and online courses, in partnership with LinkedIn Learning.

Scholarships

Milliman has granted annual scholarships to more than 320 students through five programs:

- Opportunity Scholarship assists students globally from ethnic groups and races underrepresented in actuarial science.
- International Association of Black Actuaries Scholarship awards one student of African descent originating from the United States, Canada, the Caribbean, and African nations.
- Organization of Latino Actuaries awards academic scholarships as part of our sponsorship.
- Wendell Milliman Scholarship Fund assists college-bound children of Milliman employees.
- Stuart Robertson Memorial Scholarship assists students majoring in actuarial science.

Employee health and safety

Milliman is an employee-owned company and together, we have committed that our business, along with the mission, vision and values of the firm, will be passed on equitably from one generation to the next. Given our ownership structure and business philosophy, the health and safety of our Milliman colleagues is a primary concern. Each office provides safe working conditions that are conducive to creating high quality work. Each office is required to develop a disaster plan that includes a focus on employee safety in case of emergencies. During the pandemic, we brought in doctors to speak at virtual all-employee meetings about COVID-19 and answer questions. The firm created guidelines for a safe return to work, including flexible options for remote and in-office arrangements.

Environment

Principle 7

Businesses should support a precautionary approach to environmental challenges.

Principle 8

Undertake initiatives to promote greater environmental responsibility.

Principle 9

Encourage the development and diffusion of environmentally friendly technologies.

Commitment to our environment

In 2022, Milliman's Board of Directors formally approved Milliman becoming net zero by 2040.

We set validated science-based targets to reach net-zero emissions across the value chain by 2040. Milliman committed to reduce absolute scope 1, 2, and 3 GHG emissions 46.2% by 2030 from a 2019 base year, and to reduce absolute scope 1, 2, and 3 GHG emissions 90% by 2040 from a 2019 base year. These targets have been approved by the Science Based Targets initiative.

The firm hired Alex Thorpe in 2023 as director of social impact and sustainability to lead net zero efforts.

As a service provider, Milliman doesn't have the same carbon footprint as a manufacturing company. Several of our offices are located in Leadership in Energy and Environmental Design (LEED) Certified buildings. Milliman does not own any real estate, and as such is limited in what it can implement in its offices. However, we work with our landlords/property management companies to:

- Include green lease language.
- Identify potential renewable energy opportunities.
- Investigate submetering of our offices (for better GHG data).
- Implement energy conservation strategies, such as switching to LED light bulbs.

To encourage environmentally friendly commuting options, many offices subsidize public transportation. For example, the Seattle office provides employees with free transportation passes that cover the full fare for regional buses, trains, water taxis, and light rail. Fifty percent of employees participate.

Anti-corruption

Principle 10

Businesses should work against corruption in all its forms, including extortion and bribery.

Anti-bribery

Milliman's Anti-Bribery Policy prohibits all types of bribery or the appearance of bribery to public officials and private entities. We educate our employees on this policy through communication and training. Milliman's Audit Committee oversees a series of financial audits by internal and external auditors, and the GCG oversees compliance.

Conflicts of interest

Milliman is committed to a conflict-free environment. As a privately held company, we retain our independence. Milliman's policy requires any employee who becomes aware of a conflict or potential conflict to report it in a timely manner. Conflicts are managed through a series of procedures, starting with a conflict check prior to entering into any client work and continuing with conflict reporting and management throughout the project. Conflicts are analyzed and addressed either through conflict mitigation or disclosure.

Fraud

We're committed to legal and ethical behavior throughout the organization as stated in the Milliman Code of Conduct. Internally, this is maintained through a series of policies, including our Anti-Bribery Policy and our Whistleblower and Non-Retaliation Policy. Milliman also acts to prevent fraud from outside the company. Our Milliman Information Security Policy and various policies relating to the protection of data require all employees to take steps to ensure that threats from outside the company are detected and prevented where possible. All employees are required to take monthly training on information security and threats.

Money laundering

Milliman prohibits money laundering in all aspects of our business. We work to detect and prevent any service or support provided to any individual or entity engaged in money laundering. Several business units globally are legally required to implement anti-money laundering programs. These robust programs are tailored for the types of services provided and the clients who receive the services. Each program is reviewed by an expert located within the business unit on a periodic basis, and any suspicious activity must be reported. We provide employees with training to identify and detect money laundering.

All employees submit to a background check, where legally allowed, which includes screening against the Office of the Inspector General exclusion lists prior to starting employment and each month thereafter. Prior to providing services to any potential client, an entity undergoes a thorough background check. For global entities, this includes a screening through WorldCheck. On a continuous basis, all employees maintain close contact with their clients. If employees notice any suspicious behavior, they're required to report it through the Whistleblower and Non-Retaliation Policy. ■

DIVERSITY, EQUITY, AND INCLUSION

Dr. Christal Morris, Chief Sustainability and DEI Officer, spoke about inclusive leadership at the 2023 shareholders meeting.

ERG chairs, co-chairs and executive sponsors gathered for a 2023 summit and strategy session in Milwaukee.

Diversity, equity, and inclusion (DEI) are core to Milliman's mission to protect the health and financial well-being of people everywhere. Milliman has a strong commitment to DEI, as described in our public DEI statement.

By including everyone and drawing on differences in who we are, what we have experienced, and how we think, we are better able to deliver services that exceed the expectations of our clients, strengthen our communities, and provide opportunities for everyone to maximize their talents and do their best work.

The primary goals of our DEI efforts are:

Belonging: Create a culture where everyone feels welcome, supported, and able to thrive.

Education: Provide all employees the opportunity to advance their understanding of how they can contribute to our culture of belonging.

Advancement: Invest in programs that will increase diversity in our leadership.

Policies: Ensure our policies and procedures are not inadvertently creating inequities.

Monitoring and reporting: Monitor and communicate our statistics and regularly reassess plans and strategies to achieve our stated goals.

To achieve these goals, we have ongoing education and measure progress through employee surveys, focus groups, and DEI data-driven metrics.

Our firm in the United States is 26% racially diverse, women represent 42% of our global population and 17% of our global leadership.

Statistics featured are from the 2022 Milliman People Data Report, spanning June 2021–June 2022.

Our firm in the United States is

26%

racially diverse

Women represent

42%

of our global workforce and

17%

of our global leadership

Millennials make up

50%

of our workforce

As part of our DEI efforts, we sponsor these organizations:

We are driven by the understanding that our actions have long-term effects on our employees, clients, and ultimately society. Led by Dr. Christal Morris, our chief sustainability and DEI officer, our team works with senior leadership throughout our firm, including the DEI Committee, which consists of senior leaders and reports to the Milliman Board of Directors.

We provided scholarships to IABA and OLA students this past year and serve on IABA's Corporate Advisory Council to advise on bettering the industry. We also have a Milliman Opportunity Scholarship program dedicated to diversifying opportunities for underrepresented talent. We are active participants in virtual and live career fairs and student conferences. And we work alongside campus affinity groups to ensure we are highlighting Milliman as an employer of choice.

Our people are our most precious resource, and our goal is to create an environment that recognizes and meets our employees' personal and professional needs. We encourage all our colleagues to join our communities, such as our employee resource groups (ERGs), which are employee-led groups based on shared experiences and goals designed to strengthen and support our commitment to DEI throughout the firm.

More than 750 unique members participate in Milliman's ERGs. Our seven ERGs are Asian, Black, DREAM (diverse abilities), Military and Veterans, MilliWomen, Pride, and Unidos (Latine).

+750

unique members participate in Milliman's ERGs

- Our ERGs organize events and communications to celebrate and raise awareness during significant diversity-related months and occasions.
- They are empowered to influence policies, develop future leaders, and increase employee engagement.
- Milliman received the Military Friendly Company designation for its policies and commitment to veterans. Milliman also received recognition for Military Spouses Friendly Company and Military Friendly Supplier Diversity in 2023.

We empower and encourage our people to contribute more and varied ideas. Through their contributions, we embrace the diversity of cultures, views, religions, languages, and experiences across our global firm that help us better serve our clients worldwide. ■

The Military and Veterans Employee Resource Group held a virtual firmwide meeting in 2022 to celebrate Veterans Day.

Actuary Sandrine Bawah checks in a student at a networking event at the International Association of Black Actuaries annual meeting in Chicago.

A coffee farmer in Mityana, Uganda, picked ripe berries during the coffee harvest. He has received funding and training through Opportunity International's Opportunity Zone program, funded by the Milliman Giving Fund.

GLOBAL IMPACT

Health and financial well-being have no borders. We remain committed to our mission to protect the health and financial well-being of people everywhere.

We are partnering with the United Nations Development Program to expand actuarial resources in developing countries to increase opportunities in our industry and improve risk management on a global scale. And as severe weather events increase risks to people's health and financial security, our employees are driving innovation in climate resiliency. Milliman has calculated its greenhouse gas emissions and set SBTi-verified targets to reduce emissions 42% by 2030 and achieve net zero by 2040.

Our commitment to the environment

Milliman has performed annual comprehensive greenhouse gas GHG accounting as part of our disclosure with CDP since 2021.*

	2019	2020	2021	2022
Total tCO2e	**64,944**	**27,787**	**17,188**	**43,285**
Scope 1	1,272	551	1,175	994
Scope 2	3,831	1,665	3,207	3,928
Scope 3	59,841	25,571	12,805	38,362

* 2019 was used as a baseline since it was the firm's most recent year of operation under normal conditions. 2020 marks the first year of the COVID-19 pandemic, with a stark reduction in emissions in 2020 and 2021. Numbers rose in 2022, as employees began returning to their offices and pre-pandemic activities.

Reporting our progress

Milliman reports annually to the following programs:

- EcoVadis – Score: 49
- CDP – Score: C
- IntegrityNext
- United Nations Communication on Progress

We report quarterly to supplier diversity programs.

- Supplier.io
- Viva Stars

Since 2019, the Milliman Giving Fund has granted

+$4M

to transformative programs in community and economic development, STEM education, and access to health services.

+$600K

related to COVID-19, Ukraine, war, and the earthquake in Turkey and Syria.

Employees donate money and time in their communities

$2.34M

donated to local organizations

17,895

hours volunteered

Our commitment to philanthropy

The Milliman Giving Fund is our philanthropic initiative to amplify our mission, funded entirely by donations from our employee and retiree community. Since 2019, the Milliman Giving Fund has granted more than $4 million to transformative programs in three areas of focus.

Community and Economic Development – focusing on job creation

Since 2019, we have provided financial support to Opportunity International to prove a concept in Mityana, Uganda that a coordinated set of interventions around education and access to capital could transform the future of people in a community. The success of the Opportunity Zone concept led to expansion to two additional countries (DRC and Colombia). We are now supporting Phase 2 in Mityana, and Phase 1 in Cartagena, Colombia.

Education – focusing on STEM at the primary and secondary level in low-resource communities

Since 2019, we have been a primary sponsor of the Actuarial Foundation's Math Motivators program to expand math tutoring to more schools and students across the United States. Our involvement has allowed Math Motivators to expand its reach to more than 30 cities in the United States, and to expand beyond high school to upper elementary, middle school, and community college. It also includes financial literacy and tutoring in multiple languages.

Health – focusing on provision of and access to global, public, and mental health services

In 2021 to 2023, we funded two organizations:

- Splash's Project WISE, which is working to bring clean drinking water, sanitation facilities, and menstrual hygiene education to all government schools in Addis Ababa and Bahir Dar, Ethiopia.
- Partners in Health and their work with Navajo partner COPE to strengthen the health system and improve the lives of those living with chronic diseases on the Navajo Nation.
- At critical times, we have also funded global emergency medical and humanitarian efforts. Since 2020, we have granted more than $600,000 related to COVID-19, Ukraine, and the earthquake in Turkey and Syria.
  - For example, in 2022, we provided more than $250,000 to two organizations to alleviate suffering due to Russia's invasion of Ukraine.

Local contributions

Milliman staff also contribute to their communities outside of the Milliman Giving Fund. Since we began tracking in 2018, Milliman offices have donated $2.34 million to local organizations, and staff have volunteered 17,895 hours through activities, such as food banks, Special Olympics, cleanup and restoration projects, and school supply drives. ■

Milliman-United Nations
GAIN partnership

GAINING STEAM

A student at Tribhuvan University, the only school that offers actuarial- related education in Nepal.

In September 2022, the United Nations Development Programme (UNDP) and Milliman created the UNDP-Milliman Global Actuarial Initiative (GAIN) to help developing countries better understand and manage their risks by building actuarial capacity and deepening insurance markets.

One year later, this bold and unique initiative is thriving and growing, supporting 10 countries with insurance and risk finance solutions to face growing risks.

This multi-year effort was announced at the 77th United Nations General Assembly, with the goal of enabling sustainable economic development, reducing inequalities, enhancing democratic governance and peace-building, and promoting climate and disaster resilience.

Over the past year, the partnership between UNDP Sustainable Finance Hub, led by its Insurance and Risk Finance Facility (IRFF), and Milliman has shown remarkable progress and developed a clear vision of how the initiative can evolve in the future. Just check out the numbers: more than 50 Milliman "ambassadors" visited 10 IRFF programme countries across 12 time zones in the past 365 days: Egypt, Nepal, Nigeria, Colombia, Ghana, Ethiopia, Tanzania, Ecuador, Uzbekistan, and Vietnam, with more to come.

Ken Mungan, Chairman of Milliman, and Achim Steiner, Administrator of UNDP, sign the agreement on GAIN.

Jan Kellett, Head of UNDP's Insurance and Risk Finance Facility highlighted the importance of the partnership: "One year after our partnership with Milliman and working now in 10 countries, it shows that a strong insurance and institutional sector can provide inclusivity and comprehensive support for the most at-risk populations in the world."

There have been five roadmap implementation plans agreed upon with partners; these roadmaps provide a plan for building each country's supply of actuaries and increasing demand for actuarial expertise. Five working groups have been set up in-country, involving more than 50 volunteers. The mentorship program that has been launched involves more than 70 participants. Tutorial programs have attracted more than 60 student participants.

There were only 35 known actuaries working in Egypt, a country of 110 million people.

35

110
000
000

"The program is off to an amazing start with so much more to be done," says Milliman chairman Ken Mungan. "For economies to advance, societies must be able to manage risk. GAIN helps people to build the skills they need to accomplish this essential task. On behalf of Milliman, we are delighted to work with the UNDP on this important effort."

That effort is a significant one, as many programme countries have too few or even no actuaries. How can these countries benefit from a growing actuarial profession? Actuaries enable strong insurance markets and sustainable safety nets so that people are better protected against today's risks, especially risks introduced by climate change. Actuaries can contribute to insurance mechanisms to protect crops and cattle, and to mitigate the risk posed by floods, fires, and other manifestations of climate change.

In Tanzania, a GAIN ambassador team consisting of Queenie Chow, John Meerschaert, and Christine Perkovich O'Brien identified a key limitation that is present in multiple GAIN countries: a shortage of qualified actuaries, leading to dependence on other countries for actuarial support. The response from government and insurance entities to the GAIN assessment has been positive: Officials outlined a comprehensive five-year plan that aims to increase the number of actuaries in Tanzania. Local insurance authorities are now co-chairing the GAIN initiative in the country and plan to launch an Actuarial Professional Course, targeting actuarial professionals, launching a mentorship program, and providing training to students, reinforcing a commitment to strengthening Tanzania's actuarial field.

On one of the GAIN mission trips, Milliman ambassadors Jorge Torres, Merideth Randles, and Josh Collins traveled to Colombia to meet with a vast variety of stakeholders to collect feedback and see what could be improved in a country that has only 150 actuaries. Jorge estimated that 500 or more Colombians who are accountants or engineers are attempting to perform the duties of actuaries.

"There's a strong presence of actuaries in terms of how they are organized, but regular people on the street don't know what an actuary is," Jorge said.

During Josh's fact-finding trip to Egypt with Milliman's MicroInsurance Centre's managing director, Michael McCord, he learned that there were only 35 known actuaries working in a country of 110 million people.

"I THINK EVERYBODY RECOGNIZES THAT THEY DO WANT TO BUILD UP THE ACTUARIAL PROFESSION, BUT THEY'VE GOT A WAY TO GO."

— Steve White, Principal and Consulting Actuary

Milliman's Steve White and Queenie Chow traveled to Nepal and found that the beautiful country nestled in the shadow of the Himalayas has just one actuary. A woman named Prechhya Mathema, who is from London and came back to live with her parents in Nepal, is a fellow of the Institute and Faculty of Actuaries (IFOA) in the UK, but nobody else in Nepal is a fellow or even an associate.

"She realizes there are a lot of challenges," Steve said of Mathema. "I think everybody recognizes that they do want to build up the actuarial profession, but they've got a way to go."

Steve White and Queenie Chow, Milliman, with actuary Prechhya Mathema (middle) in Nepal. Prechhya Mathema is the president of the Actuarial Society of Nepal (ASN). She is the consulting Actuary of the Nepal Insurance Authority and the only qualified actuary in Nepal.

Milliman's Merideth Randles (left), Ong Xie (middle), and Edward Moskovski (right) represented Milliman in Uzbekistan as part of the UNDP-Milliman Global Actuarial Initiative (GAIN).

"THERE'S BEEN A LOT OF INVESTMENT MADE IN MICROINSURANCE AND GROWTH AND THE CAPACITY TO BUILD ON THAT AND CONTINUE TO ADD TO THE TYPE OF INSURANCE PEOPLE ARE GETTING DISPOSES A TREMENDOUS VALUE TO THE PEOPLE OF GHANA."

— Merideth Randles, Principal and Consulting Actuary

That was the prevailing sentiment in each of the countries Milliman visited, including Ghana, where Randles and Ong Xie represented the firm in almost two full weeks of meetings — 26 in all — with people from all across the actuarial landscape.

Randles said that while Ghana has made substantial inroads and investment in microinsurance, there remains a lack of actuarial capacity and expertise in a country where more than 80 percent of the population is working in the "informal sector," or on their own.

"A lot of people in Ghana are doing jobs like running banana and yam shacks or delivering things around on motorbikes," Merideth says. "So they're all bearing the risk of their lifestyle if a catastrophic event happens to their health or life or goods.

"There's been a lot of investment made in microinsurance and growth, and the capacity to build on that and continue to add to the type of insurance people are getting disposes a tremendous value to the people of Ghana."

These investments tie to the UNDP's larger effort to build insurance and risk management capacity in the developing world.

"Amid a world intensifying with escalating crises, investing in making insurance accessible and affordable is imperative," said the UNDP's Jan Kellet.

Each Milliman GAIN trip concluded with workshops that featured roadmaps to success. There are hurdles ahead, but the plans Milliman proposed are being received well by the stakeholders, who are motivated to grow their expertise and numbers in this important field.

"It was incredibly rewarding," Josh said upon returning from Egypt. "I came away learning more than I had thought I would. You come in thinking we're experts, we're the actuaries. But I learned a lot from the folks in Egypt in understanding the fundamentals and things they deal with."

Merideth came back from Ghana with a similar takeaway.

"It's going to be a valuable program," she said. "We're excited to see it grow."

One year in, the initiative is only beginning. ■

Math Motivators and
Money Mentors programs

BOOST

math and financial literacy skills

Art Baldwin, retired, and his daughter Allison, a teacher.
Art has been a Math Motivators tutor for six years.

Milliman employees share financial resources and volunteer tutoring skills with students across the United States.

When retired Seattle actuary Art Baldwin contemplated retiring six years ago, he made a list of things he needed to think about and do.

"The very first thing was, "who will I become?" he said. "I had identified as a Milliman consulting actuary for a long time." As his identity as an actuary was ending, he needed something to take its place.

About that time, Math Motivators, a tutoring program run by The Actuarial Foundation, was expanding to a few Seattle-area schools. The free Math Motivators tutoring program pairs students who need and want tutoring but can't afford it with volunteer math tutors. Baldwin was among the first to volunteer.

"I decided that I didn't want to become the guy who sat on his front porch and yelled at kids to stay off his lawn," Baldwin said. "I thought, well, this is something I can do—I can help kids get better at math."

Since 2019, the Milliman Giving Fund has been a primary sponsor of the Math Motivators program, expanding math tutoring and financial literacy programs across the United States. The Giving Fund, led and funded by employees and retirees, has granted more than $1 million to The Actuarial Foundation to fund Math Motivators and Money Mentors expansion.

"The Milliman Giving Fund stepped in at a critical point in the Math Motivators Tutoring Program's development," said Jason Leppin, executive director of The Actuarial Foundation. "We knew we had a solid program, and with the help of Milliman's employee volunteers, we were having a substantial impact on students' success. We also knew there were thousands more students we could help."

Financial contributions and volunteers have helped Math Motivators reach more than 6,000 students. Math Motivators has added virtual tutoring, drop-in centers, and expanded to serve grade levels 3 to 12 and early college students.

"Through the Milliman Giving Fund's generosity and the continued involvement of their employees as volunteer tutors, we have grown from serving 24 students to more than 1,500 annually," Leppin said. "That's a win-win for everyone!"

Tutors also support test prep, multilingual tutoring, and the new Money Mentors financial literacy program. This past year, the program provided math and financial literacy tutoring to over 1,500 students in 22 states. Milliman employees and retirees volunteered as tutors in eight cities and supported students in the Virtual Tutoring Center.

"A successful consultant needs to be able to explain complicated concepts to people who don't have your technical background," Baldwin said. "And that's a good skill when you're tutoring high school kids in math."

Anyone who has an interest in tutoring can volunteer. The Actuarial Foundation provides training materials and tutorials to help tutors prepare.

Program pivots to online during the pandemic

When COVID-19 stopped in-person tutoring in 2020, The Actuarial Foundation and tutors proposed moving to virtual sessions. Tutors in Milliman's Seattle office participated in a pilot program.

More than ever, students needed the educational boost a tutor could offer. In the beginning, tutors faced multiple challenges from poor internet connections to how to gauge a lesson's effectiveness with students who weren't turning on their cameras.

"We traded tips on how to how to do math on your computer and have it be visible to somebody," Baldwin said.

Despite the initial challenges, virtual tutoring has opened up opportunities for tutors and students.

$1M

granted to The Actuarial Foundation to fund Math Motivators and Money Mentors

“IT EXERCISED MY BRAIN IN A DIFFERENT WAY... I WAS ABLE TO SHARE MY MATH KNOWLEDGE AND FEEL LIKE I WAS GIVING BACK.”

— Meredith Wellhausen, Consulting Actuary

Meredith Wellhausen has volunteered as a Math Motivator since 2018.

Portfolio manager trades work stress for tutoring

Meredith Wellhausen, Chicago, describes herself as a “joiner,” so when she heard about Math Motivators in 2018, she immediately signed up.

She would take a long lunch to tutor at a high school near her office. Leaving work behind to focus on tutoring made her feel grounded.

“I had to focus on, how are we going to solve this algebraic equation? How am I going to explain to you the difference between radius and diameter, and perimeter vs. area?” said Wellhausen, who at one point considered becoming a math teacher.

“It exercised my brain in a different way, which made me more centered when I got back to work because I was able to share my math knowledge and feel like I was giving back.”

Now, Wellhausen tutors middle school and high school students virtually. Her favorite moments are when students connect with what they’re learning. “You’re boosting them to the next level, and when it clicks and you see that joy in their eyes, nothing can beat that.”

New Money Mentors program teaches students financial literacy

Melissa Reseck, a Seattle actuary, was a tutor during high school and college. So working as a Math Motivator, and now a Money Mentor came naturally.

Tutoring is in her DNA. “I come from a family with a lot of teachers, so I know how important this support is to the students and teachers, and especially for populations that may not have the money to afford private tutoring,” she said.

Reseck had volunteered with Math Motivators since its start in Seattle and continued virtually when the pandemic hit.

As local schools returned to in-person tutoring, Reseck, now working remotely full-time, started looking for another virtual opportunity and found The Actuarial Foundation’s Money Mentors program.

Money Mentors can be taught virtually or in-person at a school or community center. Mentors work with one or two students at a time. Discussions guide students to make conscious choices about personal finance topics, including saving, investing, and credit. They also explore educational and career paths as they approach life after high school. Sessions can vary in length from shorter sessions over four to eight weeks or a one- or two-day workshop.

As one of the first Money Mentors last year, Reseck worked with two high school students who participated as part of their school’s curriculum. Students watch videos, play games, and invest free money on an investment simulator.

“It’s a really comprehensive program, and that makes it engaging because you’re moving from topic to topic at a high level,” she said. “I liked the real-life applicability and the focus on personal finance and financial literacy.” ■

Gender-based violence project

EPITOMIZES MILLIMAN'S MISSION

A cornerstone of Milliman's mission is to "serve our clients to protect the health and financial well-being of people everywhere."

A new online tool focused on how investors can help prevent and mitigate the global scourge of gender-based violence (GBV) epitomizes that mission, and it's the product of collaboration, innovation, empathy, and a lot of old-fashioned hard work.

It was developed by the MicroInsurance Centre at Milliman and Making Cents International with support from the United States Agency for International Development (USAID) INVEST initiative, and it comes less than a year after the United Nations (U.N.) General Assembly adopted a resolution in September of 2022 condemning all forms of sexual and gender-based violence.

The country- and sector-specific tool allows institutional investors, including pensions and insurance companies, to see how GBV is impacting various countries and industries and then use the data and insight they uncover to make decisions on how to build their investment portfolios.

According to the World Health Organization, one in three women have been subjected to GBV in their lifetime since age 15, "and women still frequently lack equal access to economic resources." Data shows that this makes countries less economically stable and secure.

Enter the tool, which is a webpage featuring a map of the world with "scores," or ratings, of the economic risk of each country included. The data can be extracted, and there is a full methodology on how the scores are calculated. The tool is available for free to anyone who wants to access it.

"It took a lot of out-of-the-box thinking to identify solutions to the problem and come up with results that made sense," said Josh Dobiac, a Principal and Risk Consultant for Milliman's Financial Risk Management practice and the technical lead on the GBV tool project. "I think we did that."

> **"IT TOOK A LOT OF OUT-OF-THE-BOX THINKING TO IDENTIFY SOLUTIONS TO THE PROBLEM AND COME UP WITH RESULTS THAT MADE SENSE."**
>
> **— Josh Dobiac, Principal and Risk Consultant**

It took time. The final product arrived after two years of intensive statistical analysis that included non-linear regressions and testing predictions with the goal of demonstrating that there was a connection to economic consequences from GBV around the world. It wasn't easy, either. Data, which at times could be hard to find, went through transformations to make it more relative and comparable between countries. An index was constructed from those findings and compared to the analysis that was already done. Passing that barometer was the final hurdle to creating the "scores."

"At the end of the day, we took the data that we knew was good," Dobiac said. "You have to try different things and see what makes sense and then check them against the data that you do have available. That's the magic of building an index."

The tool has many uses that different organizations can leverage successfully, but the main use case is looking at institutional investors such as life insurance companies and pension funds that have environmental, social, and governance (ESG)-oriented investment mandates and want to capture social factors in addition to those that are available with most common ESG scoring providers. This allows investors to assess the economic impact GBV can have on different investments and use that information to make decisions.

"This way, investors can make sure that they're investing in a socially responsible manner with respect to gender-based violence," Dobiac said.

"And if they want to improve the welfare of regions in the world through investment, our tool can be used to identify problematic areas, so investors can use this to identify those countries and those sectors that are most at risk at contributing towards gender-based violence and therefore invest in interventions or assist businesses as they get off the ground and expand, to do so in a way that doesn't negatively impact gender-based violence, either in the workplace or in the community."

Mariah Mateo Sarpong, the director of communications and knowledge management at the MicroInsurance Centre at Milliman, is the project manager of this initiative. She said she's thrilled that Milliman is providing a valuable tool in an area where there simply hasn't been much technology to understand GBV in the context that investors need.

Given that Sustainable Development Goal (SDG) 5 of the 17 Sustainable Development Goals established by the UN in 2015 concerns gender equality, it's clear that GBV is a major daily topic of discussion within the development sector.

"What USAID tried to do with INVEST is to figure out how to mobilize private capital to actually tackle some of these development problems," Mateo Sarpong said. "Milliman is so good at bringing those two worlds together, so it's very exciting."

There are myriad goals for an undertaking as extensive as this one. One of the primary goals is to inspire people to have GBV in mind when they are thinking about investments and decision-making. Another goal is to build a robust and in-depth library of use cases on the webpage that will motivate others to test it out. And a third goal is for investors to be aware of how little data are available and how important it is to invest in collecting more information on this topic, particularly in countries in Sub-Saharan Africa and Central Asia.

"In those places, the paucity of data is just tragic," Dobiac said. "And so, to the extent that this tool could help motivate large organizations such as the World Bank, the United Nations, the International Monetary Fund (IMF), and whomever else actually to go through and invest money to collect information so we can refine our analysis, that would be fantastic."

The tool is ready, and Milliman can't wait to see what type of impact it will have.

"GBV is a well-being and public health crisis," Mateo Sarpong said. "So if we can use our skills at Milliman and the MicroInsurance Centre to do something about that, I think that's what we should be doing.

"WE'RE PART OF THIS CONVERSATION NOW. AND THAT PUTS US IN A REALLY IMPORTANT POSITION."

— Mariah Mateo Sarpong, Director of Communications & Knowledge Management

"The global development sector is trying to get actors like Milliman more involved, so we're part of this conversation now. And that puts us in a really important position." ■

THE ROAD TO NET ZERO

Setting a target for 2040

Milliman marked a milestone in 2022 with science-based emissions goals and Board approval of a carbon reduction commitment.

In December, Milliman's Board of Directors approved a carbon reduction commitment to reach net zero by 2040.

The firm set validated science-based targets to reach net-zero emissions across the value chain by 2040. We commit to reduce absolute scope 1, 2, and 3 GHG emissions 46.2% by 2030 from a 2019 base year, and to reduce absolute scope 1, 2, and 3 GHG emissions 90% by 2040 from a 2019 base year. These targets have been approved by the Science Based Targets initiative.

> "THIS MILESTONE PRESENTS A TREMENDOUS OPPORTUNITY TO WORK STRATEGICALLY ... TO MEET OUR SUSTAINABILITY GOALS."
>
> **— Alex Thorpe, Director of Social Impact and Sustainability**

Initial work will focus on a short-term phase to build out carbon reduction strategies.

These include how Milliman can fine tune carbon emission data collection and identify partnerships.

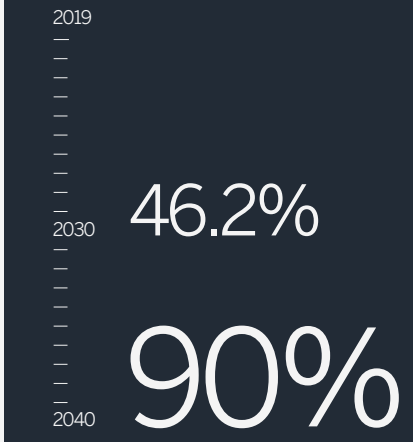
"Today, we're at the beginning of a three-year implementation plan," said Alex Thorpe, director of social impact and sustainability. "This milestone presents a tremendous opportunity to work strategically with colleagues, vendors, and clients to meet our sustainability goals."

Milliman has been calculating and disclosing its greenhouse gas (GHG) emissions for several years based on Greenhouse Gas Protocol guidelines. The firm's carbon reduction strategy began in 2018.

In 2020, Milliman partnered with climate consultant South Pole to begin tracking greenhouse gas emissions, including a baseline.

Like many professional service companies, business travel, purchased goods, IT equipment, professional services, cloud services, data centers, employee commuting, and waste are Milliman's greatest emission sources.

Targets to reduce absolute scope 1, 2, and 3 GHG emissions by year 2040
(percent from base year 2019)



Taking carbon reduction to the next level

A next step is fine tuning data collection methods to access a deeper well of data around everything from travel to Milliman's own professional services. In some cases, GHG data has been using industry benchmarks rather than primary data.

"In order to really manage our footprint, we need to have greater granularity," Thorpe said. "For example, how many flights a year do we take on Delta vs. American Airlines and how many hotel nights in a Marriott vs. Hilton."

The firm can leverage features of finance systems, including Concur, to capture details around flights and hotels. This data could offer opportunities to negotiate agreements or credits for greener flights powered by sustainable airline fuel. And meetings could be scheduled at carbon-friendly hotels.

Going green in the office

Information sharing among offices and practices, can help establish which locations are in Energy Star or LEED certified buildings. As some practices downsize in response to remote working arrangements, or as leases expire, offices have the opportunity to negotiate greener leases.

Companies can profit from carbon reduction efforts by aggregating spending for services. And they can benefit from employee retention and recruitment. Employees and new hires are ranking carbon reduction as a top priority.

The 2022 Edelman Trust Barometer, which surveyed more than 36,000 people in 28 countries, found 60% of people would choose a place to work based on their beliefs and values.

And a growing number of clients, prospects, and vendors are depending on Milliman's carbon reduction efforts to meet their own supply chain goals.

Growing momentum to reduce carbon is leading companies to collaborate and innovate with vendors, clients, and consumers so everyone progresses toward their goals.

Milliman practices are receiving an increasing number of requests for scores for industry benchmarks from the CDP (formerly the Carbon Disclosure Project) and EcoVadis, climate and sustainability ratings providers.

"Our ability to improve scores year-over-year is an essential part of Milliman's strategy to help address client risk," Thorpe said. ■

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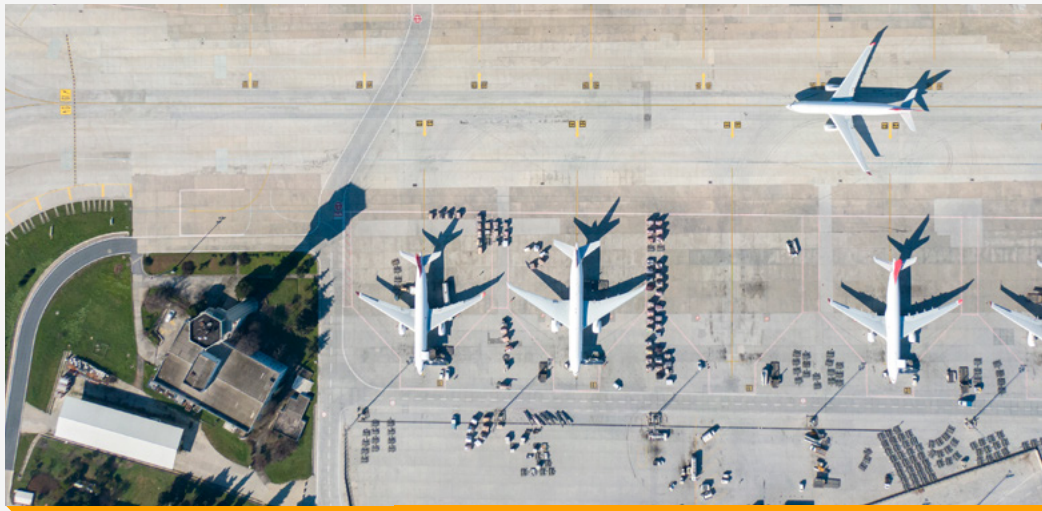
> **— Alex Thorpe, Director of Social Impact and Sustainability**



Social impact and sustainability statement and policies

Social responsibility is embedded in everything we do—how we work with clients, hire and develop our people, and interact with our communities. Our corporate social responsibility statement and policies set a standard for ethical and sustainable business practices, innovation that transforms communities, philanthropic pursuits, and diversity and inclusion.

For more information about our social impact activities, contact us at **socialimpact@milliman.com** and visit **milliman.com/social-impact**.

About Milliman

Since 1947, we have combined technical expertise with business acumen to create elegant solutions for our clients. Today, we are helping organizations take on some of the world's most critical and complex issues, including retirement funding and healthcare financing, risk management and regulatory compliance, data analytics, and business transformation.

Visit us at **milliman.com**.

A teacher at primary school in Mityana, Uganda funded by the Opportunity Zone program supported by the Milliman Giving Fund.