

2024

**MICHIGAN STATE UNIVERSITY
SUSTAINABILITY
REPORT**



TABLE OF CONTENTS



Introduction	<u>1</u>
2024 Year in Review	<u>3</u>
Sustainability Highlights Aligned with the UN Sustainable Development Goals	<u>5</u>

Rooted in Place, Reaching the World

MSU is a proving ground for ideas that grow into global solutions.

MSU's impact reaches across all 83 counties in Michigan and extends around the globe. Right here at home in East Lansing, our 5,200 acre campus is a place where systems can be studied, solutions can be tested, and ideas can be scaled, making it one of the most compelling environments in the world to explore the complexities of sustainability.

What makes our campus special, what breathes life into our Spartan experiences and roots us in place are the same elements that create endless possibilities to explore and understand our complex world. It's the Red Cedar River winding through campus, the quiet resilience of Baker Woodlot, the hundreds of buildings where we live, learn, teach, research, and work. It's the paths and roads we travel, on foot, bike, bus or car. The utilities humming beneath our feet, powering a community of 65,000 Spartans. MSU is a dynamic living laboratory.

This report invites you to step into that laboratory. It highlights the accomplishments of 2024 and the Spartans behind them who are working together to build a more just, resilient, and sustainable future.





Spartan Pride



2024 THE
Impact Rankings



2024 QS Sustainability
Ranking



2024 Princeton Review
Top 50 Green Colleges



Gold-Rated Institution
AASHE STARS



Gold-Level Bicycle
Friendly University



Tree Campus Higher
Education



Bee Campus USA
Affiliate

Year in Review: 2024 Highlights

MSU Joins Renewable Energy Program

MSU enrolled in Consumer Energy's Renewable Energy Program this year, which will result in purchasing 15,000 mega-watt hours of electricity per year from renewable energy sources in Michigan beginning in 2027. This will reduce the university's scope 2 emissions once implemented, furthering university climate goals. [Read more.](#)

Designing for Reuse: The Life of a Building

A new exhibition, *Domicology - Creating a Sustainable Built Environment*, opened at the MSU Museum this year, exploring ways to design and build buildings that promote the reuse and recycling of materials when a building reaches its end of life. The exhibit was a collaboration of multiple partners, led by the MSU Center for Community & Economic Development. [Read more.](#)

150 Years of the Campus Arboretum

MSU's East Lansing campus is home to over 20,000 trees that contribute to rich opportunities for teaching, research and nature appreciation. The campus arboretum, founded in 1874, celebrated its 150th anniversary this year. Stewardship of arboretum is guided by the university's Tree Management Plan and supported by many partners on campus. [Read more.](#)

Boosting Farm Resilience Through Collaboration

The Agricultural Climate Resiliency Program launched this year to help parts of the Michigan agricultural sector become more resilient to climate change and promote environmental sustainability. The program is a partnership between MSU, the Michigan Department of Agriculture and Rural Development, and industry partners in the Plant Coalition. [Read more.](#)



Engagement Highlights

Several campus programs engage the Spartan community in being Spartan green -- promoting environmental stewardship and social responsibility.

By the numbers



4,300+

Spartans reached through campus sustainability programs and events



90+

Tours of campus sustainability resources like the Surplus Store and Recycling Center or Student Organic Farm



18

Eco Reps helping Spartans living on campus embrace sustainable practices



170

lbs of clothes sold through Surplus Store and Recycling Center's student swap days

SDG Highlights

The following section showcases the ways in which the work of the Spartan community aligns with the [U.N. Sustainable Development Goals](#) through partnerships, research, outreach, and student engagement on campus, in Michigan and around the world.



1 NO POVERTY



Campus Resources

- [Employee Assistance Program](#)
- [First Generation College Student Initiative](#)
- [MSU Extension: Food & Health](#)
- [MSU Student Food Bank & Basic Needs Program](#)
- [Office of Financial Aid](#)
- [TRIO Student Support Services](#)



SDG 1: No Poverty



Program Spotlight: Providing Healthy Nutrition and Education in Michigan

MSU Extension continues its statewide [Supplemental Nutrition Assistance Program Education](#) (SNAP-Ed), reaching over 115,000 individuals across Michigan. The program focuses on supporting low-income individuals and families by providing nutrition education, promoting physical activity, and working to improve access to healthy food. Through community partnerships, school-based education, policy, systems, and environmental changes, SNAP-Ed empowers people to make healthier lifestyle choices and addresses root causes of food insecurity.



Researcher Spotlight: MSU Extension Transforming Housing Policies

The Association of Public and Land-Grant Universities awarded the [MSU Extension Housing Policy Team](#) the 2024 National Extension Diversity Award for their efforts to provide housing policy education to communities and decision makers across Michigan. They have made decision makers examine the causes of the challenges that exacerbate the unaffordable housing landscape. The team works to set an example for other states to educate, collaborate, and make informed decisions that can drive meaningful progress in the housing sector.



Student Spotlight: Spartan Making a Global Impact

[Fahim Safi](#) is a graduate student that works in the field of international development with a focus on humanitarian projects that are aimed at promoting sustainable development and social progress in underserved communities in Africa and Middle Eastern countries. Safi has been able to contribute to the development and implementation of effective food security, agriculture, health, nutrition and WASH programs. He has supported design initiatives that empower community members to thrive.

BY THE NUMBERS

8,197 students from low-income families received financial aid during AY24

21% of the undergraduate population at MSU are first-generation

19,289 participated in MSU Extension health programs in person, virtually, by telephone or using self-directed tools

2 ZERO HUNGER



Campus Resources

- [AgBioResearch](#)
- [Center for Regenerative Agriculture](#)
- [Center for Regional Food Systems](#)
- [Institute for Food Laws and Regulations](#)
- [Kellogg Biological Station](#)
- [MSU Culinary Services](#)
- [MSU Extension](#)
- [MSU Student Food Bank](#)
- [MSU Student Organic Farm](#)
- [Vermicomposting Program](#)



SDG 2: Zero Hunger



Program Spotlight: Growing Good Food in Detroit

MSU Extension first urban agriculture research center is cultivating sustainable solutions and empowering city residents in Detroit through the Detroit Partnership for Food, Learning and Innovation (DPFLI). The DPFLI advances creative solutions to environmental, economic, and nutritional challenges, improving the quality of life for people in Detroit. While transforming relationships with the food system and promoting sustainability while creating a community space for connecting with nature.



Researcher Spotlight: MSU Awarded NSF's Global Center for Food Challenges

MSU has been awarded one of six Global Centers through the U.S. National Science Foundation and its partner agencies in the U.S., Canada, Finland, Japan, the Republic of Korea, and the United Kingdom. The 2024 Global Center award focus on advancing bioeconomy research to solve global challenges by increasing crop resilience or converting plant mass into fuel. The MSU International Research Center provides a unique opportunity to connect researchers across several continents to solve global food challenges.



Student Spotlight: Student Grants for Agricultural Economics Research

Assistant Professor Jeta Rudi Polloshka was awarded over \$700,000 to provide undergraduate students the opportunity to participate in research and extension projects. These projects will focus on data analytics to address agricultural finance, food safety and food insecurity. Students accepted into the program will undertake their own research and present at the annual Agricultural and Applied Economics Associations summer conference. The goal of this program is for students to take what they have learned into the workforce.

BY THE NUMBERS

150

young families with food insecurity throughout the Grand Traverse region received healthy food boxes at seven daycares from MSU Extension

59,018

participants in MSU Extension agriculture and agribusiness related programs

115,483

adults and youth were reached through MSU Extension's nutrition and physical activity educational efforts

3 GOOD HEALTH AND WELL-BEING



Campus Resources

- [AgBioResearch](#)
- [Department of Public Health](#)
- [Henry Ford Health Partnership](#)
- [College of Human Medicine](#)
- [College of Nursing](#)
- [College of Osteopathic Medicine](#)
- [Institute for Health Policy](#)
- [MSU Extension](#)
- [MSU-Hurley Children's Hospital Pediatric Public Health Initiative](#)
- [One Team One Health MSU](#)
- [Institute for Health Policy](#)
- [University Health and Well-Being](#)

SDG 3: Good Health and Well-Being



Program Spotlight: Rural Health Care

The Michigan Center for Rural Health partnered with MSU College of Osteopathic Medicine on Project Extension for Community Healthcare Outcomes. This project is a community collaboration that strengthens needed health in rural areas and help local healthcare workers gain expertise that provide services that may not currently be available in their region. Graduates of the MSU College of Nursing are providing care to the most vulnerable rural communities across Michigan.



Researcher Spotlight: Research Team Improving Direct Care Workforce

IMPART Alliance, an MSU-led research team and nonprofit organization received a \$25 million grant to address the state's shortage of direct care workers from the Michigan Department of Health and Human Services. A research team in the College of Osteopathic Medicine will use part of the grant to establish a Direct Care Worker Career Center. IMPART Alliance is dedicated to advancing the direct care workforce profession through training programs, advocacy, research, and career development.



Student Spotlight: Two Students Host MSU's First Sexual Health Conference

Human biology and psychology major, Nupur Huria, and public health graduate student Harsna Chahal hosted MSU's first Healthcare Education Advocacy Leaders (HEAL) Conference that is dedicated to sexual health. The conference was started to create a comfortable space for education and discussion surrounding the topic of sexual health. Huria and Chahal want others to feel comfortable talking about their work, empowered to make a difference, and start a conversation surrounding sexual health.

BY THE NUMBERS

115,483

adults and youth were reached through MSU Extension's nutrition and physical activity educational efforts

\$349,201

grant received from the U.S. Department of Agriculture National Institute of Food and Agriculture to fund three projects helping adults in rural Michigan avoid opioid misuse

842

adults participated in a one-time education diabetes prevention and management program in 2024

4 QUALITY EDUCATION



Campus Resources

- [Center for the Study of Curriculum Policy](#)
- [College of Education](#)
- [College of Education - Teacher Preparation Program](#)
- [MSU Extension](#)
- [MSU Science Festival](#)



SDG 4: Quality Education



Program Spotlight: Fostering Student Success

Michigan State University will be introducing the Joseph R. and Sarah L. Williams Scholarship in the fall of 2025 semester to 30 qualifying undergraduate students. This scholarship is MSU's first full-ride scholarship covering tuition, room and board, books and supplies and an experiential learning opportunity for awardees. Through this scholarship qualifying in-state, out-of-state, and international students can get a higher education that is a gateway to help students discover their purpose and achieve personal success.



Researcher Spotlight: Spartans Transforming Data and Computing in K-12 Education

Two Michigan State University Spartans were named to a national committee that will advance the national conversation of data and computing within K-12 schools. Aman Yadav is a Lappan-Philips Professor of Computing Science Education and alumni, Joshua M. Rosenberg are two out of the sixteen members. The committee works to address the need to identify competencies students require to excel in the computational era. While also exploring how K-12 education can facilitate the development of essential skills in computing.



Student Spotlight: JMC Program Bridges the Gap with Lansing Students

Conner Holguin is a senior in the James Madison College that is helping students from Lansing discover their path to higher education at MSU. Holguin is a student recruitment coordinator who supports the Pre-Residential Immersive Madison Experience, a pre-college program for Lansing high school students. Throughout the year, Holguin visits local high schools to seek out students with interest in public policy and international affairs as well as encouraging students to explore future opportunities at MSU.

BY THE NUMBERS

24,395	students engaged in community-engaged learning as reported in the <u>AY24 Community-Engaged Learning Index</u>
1st	place ranking in service-learning among public universities
\$415M	was awarded in financial aid for students in 2024

5 GENDER EQUALITY



Campus Resources

- [Employee Assistance Program](#)
- [First Generation College Student Initiative](#)
- [MSU Extension: Food & Health](#)
- [MSU Student Food Bank & Basic Needs Program](#)
- [Office of Financial Aid](#)
- [TRIO Student Support Services](#)
- [Center for Gender in Global Context](#)
- [Gender and Sexuality Campus Center](#)
- [Inclusion Excellence and Impact](#)

SDG 5: Gender Equality



Program Spotlight: Empowering Women and Young Girls

Michigan State University annually celebrates Women's History Month in March. Throughout the month MSU honors women's contributions, host events and, supports the young girls. All month long MSU has an empowHER donation fund. The empowHER Leadership Retreat was created by former MSU women's basketball head coach, Suzy Merchant, to provide incoming fourth through ninth grade girls from diverse backgrounds with the tools to find confidence, passion and purpose in their lives.



Researcher Spotlight: Building Leadership Opportunities for Women in Business

In January 2024, Michigan State University launched the Dashney Women's Leadership Accelerator, a program designed to propel women graduates into top business leadership roles. Funded by MSU alumna Priya Balasubramaniam, VP of Operations at Apple, it honors mentor Helen Dashney. The program offers select undergraduates personalized coaching, long-term mentoring, workshops, and hands-on experiences to build leadership skills and close the gender gap in executive positions.



Student Spotlight: Health Vending Machine

Through an initiative led by Arianna Paa, a first-year medical student and Julia Walters, a second-year law student they were able to help change the narrative on emergency contraceptives. In October, MSU installed the first health vending machine that has reduced-price emergency contraceptives, pregnancy test, pain relievers, and other healthcare products. By having this vending machine readily available on campus their goal is to destigmatize sexual health care and give students a peace of mind.

BY THE NUMBERS

- 27,021** women enrolled in a degree program at MSU
- 60** red dresses displayed for the REDress Project, symbolizing the absence of missing and murdered Indigenous women and girls in the world
- 50** years of the MSU Chapter of the Society of Women Engineers that helps recruit, support and retain women in the engineering field

6 CLEAN WATER AND SANITATION



Campus Resources

- [AgBioResearch](#)
- [Center for PFAS Research](#)
- [Institute of Public Utilities](#)
- [Institute of Water Research](#)
- [Kellogg Biological Station](#)
- [MSU Extension](#)
- [MSU Water](#)
- [MSU Water Alliance](#)
- [Water Bottle Filling Stations Map](#)

SDG 6: Clean Water & Sanitation



Program Spotlight: Tackling Water Quality Rights

A team of Michigan State University researchers found that lakes in communities of color were three times less likely to be sampled at least once than lakes in white communities. It has been found that there are data disparities making it impossible to assess the water quality of lakes in communities of color. This project was led by a former MSU undergraduate student, Jessica Díaz Vázquez. Vázquez primary objective was to see whether the likelihood of lakes being sampled differed by the race and ethnicity of people living nearby.



Researcher Spotlight: Experts Provide Overview of Changes to PFAS

The Environmental Protection Agency have issued a rule, that municipal water systems must remove “forever chemicals” from tap water. MSU researchers are leading the efforts in Michigan to mitigate and educate about the dangers of PFAS. In 2020, MSU launched a Center for PFAS Research and over the last four years, they have measured and monitored PFAS. Their research has helped to learn about the health impacts on fish, wildlife, humans, and explore ways to minimize exposure.



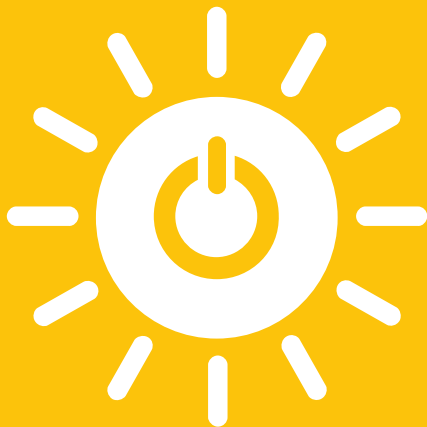
Student Spotlight: Exploring Water Insecurity

Priyanka Jayakodi is a Cultural Anthropology Ph.D. student in the Department of Anthropology, College of Social Sciences specializing in Medical and Environmental Anthropology. Jayakodi is the recipient of the 2024-25 Rose Graduate Fellowship in Water Research, awarded through the MSU Water Alliance and the Graduate School. In her Ph.D dissertation she is exploring water insecurity in communities where Chronic Kidney Disease of uncertain etiology is prevalent in Sri Lanka due to drinking water being contaminated.

BY THE NUMBERS

4M	gallons of water pumped and treated daily to ensure 60,000 students, faculty, and staff can fill water bottles, flush toilets, etc.
74	miles of pipes distribute drinking water across MSU campus
\$2.1M	grant awarded from the U.S. EPA to research pathogens in drinking water distribution systems

7 AFFORDABLE AND CLEAN ENERGY



Campus Resources

- [Center of Research Excellence in Complex Materials](#)
- [Great Lakes Bioenergy Research Center](#)
- [Infrastructure Planning & Facilities](#)
- [MSU Extension](#)
- [MSU Industrial Training and Assessment Center](#)

SDG 7: Affordable & Clean Energy



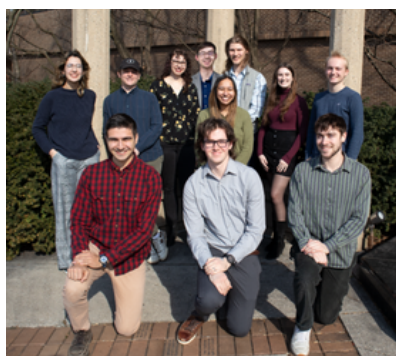
Program Spotlight: Turning Waste into Power

Three Michigan State University departments are working together in sustainable practices to convert campus waste into energy. The waste comes from the MSU Dairy Farm and Brody dining hall. The combination of the food waste along with the cattle manure makes a unique blend of methane that is a very good source for running through a generator, producing electricity. With 250 mature cows on the dairy farm, MSU can utilize the methane from cows instead of it getting lost up in the environment.



Researcher Spotlight: Exploring Conflict in Solar Energy Development

Dr. Doug Bessette, Associate Professor in the Department of Community Sustainability at Michigan State University, and partners were selected to receive a \$2.5 million award from the U.S Department of Energy Solar Energy Technologies Office for social science research. Dr. Bessette and his partners are improving large-scale solar siting processes and outcomes for host communities, particularly those that are at disadvantages. This project aims to develop solar that is fast and fair for communities.



Student Spotlight: Student Innovation in EnergyTech Competition

A group of graduate and undergraduate students participated in the 2024 EnergyTech University Prize, where they proceeded to the regionals portion of the competition. The contest challenges students to create and present a business in the energy sector. The company they pitched was called Sorghum With Enhanced Economic Traits, the business would tap into two markets, fragrances and biofuels. The product they would use is sorghum, a grassy plant with uses in biofuel production.

BY THE NUMBERS

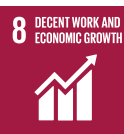
15M	kilowatt-hours of energy are delivered annually from solar carports, to the university and operate on a peak power of 10.5 megawatts
5,000	parking spaces on campus are covered by solar carport arrays
\$5M	received for the <u>MSU's Industrial Assessment Center</u> to make manufacturing and commercial operations more sustainable in Michigan

8 DECENT WORK AND ECONOMIC GROWTH



Campus Resources

- [Burgess Institute for Entrepreneurship and Innovation](#)
- [Center of Economic Analysis](#)
- [Human Resources](#)
- [Institute for Business Research](#)
- [International Business Center](#)
- [Office of Research and Innovation](#)



SDG 8: Decent Work & Economic Growth



Program Spotlight: Sustainable Through Strategic Licensing Collaborations

Erika Austin is the director of licensing programs for Michigan State University. She reached out to USCAPE Apparel, one of MSU's official licensees, to help create a new sustainably focused collection. With MSU's goals for sustainability in mind, Austin was able to create a new MSU RENEW collection that is 100% made from sustainably recycled materials. MSU Licensing continues to actively work to collaborate with other sustainability-minded licensees to expand their collection.



Researcher Spotlight: Research Powers Michigan Economy and Future

Michigan State University's research activity is interwoven with Michigan's economic growth, reporting that MSU's research expenditures reached a record \$844 million in 2023 and yielded a statewide economic impact of \$6.8 billion. MSU faculty and researchers are advancing transportation safety (e.g. improved road design), enhancing agricultural productivity, enabling medical innovations, and driving tech progress in areas like semiconductors and clean energy. MSU is positioning itself as a critical engine for Michigan's future prosperity.



Student Spotlight: MSU's Student Venture Capital Fund

The sixth annual Student Venture Capital Fund (SVCF) Investment Celebration event was held to celebrate five Michigan State students. The SVCF provides hands-on experience in venture capital investing for students taking the FI 444: Entrepreneurial Finance course at MSU. Through this class students review pipeline of early-stage startup companies from the entrepreneurial ecosystem and conduct investment selection. The initiative nurtures students to become future investors and entrepreneurs.

BY THE NUMBERS

- 13th** rank for MSU Burgess Institute for Entrepreneurship and Innovation's by the Princeton Review for undergraduate entrepreneurship program
- \$1.5M** gifted to support Spartans in business and engineering
- 35** students in the Student-Made Michigan State program where students are able to sell their products and services

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Campus Resources

- [Facility for Rare Isotope Beams](#)
- [Industrial Assessment Center](#)
- [Infrastructure Planning & Facilities](#)
- [MSU Extension](#)
- [National Superconducting Cyclotron Laboratory](#)
- [Spartan Innovations](#)
- [Mass Timber](#)

SDG 9: Industry, Innovation & Infrastructure



Program Spotlight: Spartan Discoveries Turned into Impact

The [MSU Research Foundation](#) has empowered Spartans groundbreaking research and entrepreneurship at MSU. The foundation provides resources that help recruit and retain faculty, support student fellowships, build new facilities and acquire equipment. There has been \$11.8 million in grants in 2023-24 that has ensured MSU researchers have the resources to address pressing challenges the world faces. The foundations activities are centered around driving economic development through startup creation and job creating.



Researcher Spotlight: Investing into our Industrial Assessment Center

The Michigan State University [Industrial Assessment Center](#) has received another \$5 million in their work to make manufacturing and commercial operations more sustainable throughout Michigan and the broader United States. MSU IAC will be leading efforts that work with community colleges, trade schools, union training programs throughout the country to build their IAC programs, supporting growth in energy, manufacturing workforce development, while also supporting advancement in manufacturing decarbonization.



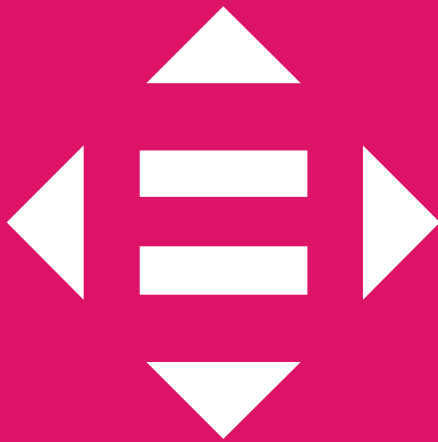
Student Spotlight: Bridging Neuroscience, Leadership and Entrepreneurship

Fourth-year neuroscience major, [Tanushree Thapar](#) founded her own jewelry brand called Heer, inspired by her own challenges in finding jewelry that matched perfectly with her skin tone. Sustainability is the foundation of Heer. She has chosen to work exclusively with recycled medical-grade titanium for her jewelry that is shipped from India. Thapar is a firm believer in fostering trade relationships that will benefit countries like India and creating a business that makes a positive impact globally.

BY THE NUMBERS

\$25M	in corporate supported programs at MSU
650	students enrolled in the Entrepreneurship and Innovation minor
178	student invention disclosures through the MSU Innovation Center

10 REDUCED INEQUALITIES



Campus Resources

- [Center for Gender in Global Context](#)
- [Gender and Sexuality Campus Center](#)
- [Inclusive Excellence and Impact](#)
- [Migrant Student Services](#)
- [Mosaic: The Multicultural Unity Center](#)
- [Multi-Racial Unity Living Experience](#)
- [Office of Multicultural Enrichment and Advocacy](#)
- [Office for Civil Rights and Title IX Education and Compliance](#)
- [Resource Center for Persons with Disabilities](#)

SDG 10: Reduced Inequalities



Program Spotlight: Equipping Students with Disabilities for the Workforce

The [Spartan Project SEARCH](#) has been equipping students with disabilities for the workforce since 2016. This collaborative initiative connects Ingham County School Districts with MSU to provide young adults with disabilities immersive work-based learning opportunities, equipping them with vital employability and life skills. Each department and MSU employee who works with Spartan Project SEARCH interns helps the effort to change the culture and understanding of inclusion.



Researcher Spotlight: Fighting Social Injustices in Rural Louisiana

[Kas Anderson Jr.](#) of the Michigan State Department of Psychology is from the rural southeast of Louisiana where chemical plants and oil refineries are near causing many Black American residents to have health issues. With the help of MSU professors they will be scientifically studying the impact of air pollution and social detriments in rural Louisiana. This project is important to Anderson because the residents will be able to share their experiences on juxtaposition of racism and classism, and how it impacts their health.



Student Spotlight: Community Through ASL Club

In 2023, senior Ellyn Skodack started the [American Sign Language Club](#) (ASL Club) due to the lack of classes and clubs at Michigan State University. A year later the ASL Clubs holds weekly meetings and provides a space for ASL learners to come together, practice and build community. They watch mini lessons, play games, and invite guest teachers. Members with more experience also come to the club in an effort to advocate for more ASL resources and more visibility for the deaf and hard of hearing community on campus.

BY THE NUMBERS

\$339K distributed to fund 32 projects for underrepresented groups

28.4% students of color were enrolled at MSU in 2024

44 researchers from MSU and Big Ten came together for the Diversity Research Network workshop

11 SUSTAINABLE CITIES AND COMMUNITIES



Campus Resources

- [Center for Community and Economic Development](#)
- [MSU Bikes Service Center](#)
- [MSU Broad Art Museum](#)
- [MSU Extension](#)
- [MSU Museum](#)
- [MSU Extension - Center for Local Government Finance & Policy](#)
- [MSU Facilities and Land Use Plan](#)
- [University Outreach & Engagement](#)
- [Wharton Center](#)

SDG 11: Sustainable Cities & Communities



Partnership Spotlight: Outreach Creates Thriving Communities

MSU extends its mission statewide through outreach that strengthens communities across all 83 Michigan counties. Partnerships in programs like the Apple Developer Academy in Detroit, helps entrepreneurs through the MSU Product Center, and delivers research-based education and support via [MSU Extension](#) in areas such as agriculture, health, youth development, and business. These efforts bring university resources into communities, support local economics and embody MSU's commitment as a land-grant institution.



Researcher Spotlight: Brain Activity Research Predicts Urban Planning

[Dar Meshi](#), an associate professor in the Department of Advertising and Public Relations and director of the Social Media and Neuroscience Lab at MSU, is leading a study that is measuring brain activity that will make predictions that could help inform enhanced urban planning and design that addresses the well-being of residents and visitors. Meshi and other collaborators found that the brain's reward system can shape human behavior within urban environments and aid in designing cities that promote sustainable living



Student Spotlight: Spartan Day of Service

[Spartan Day of Service](#) is an annual community engagement event organized by Michigan State University's Center for Community Engaged Learning. In 2024, hundreds of MSU students, faculty, and staff came together to volunteer across East Lansing and surrounding communities. Participants contributed to a variety of projects including neighborhood clean-ups, food distribution, community gardening, and support for local nonprofits. The event fosters a spirit of civic responsibility and connects Spartans with meaningful opportunities to make a positive impact, promoting stronger, more sustainable communities.

BY THE NUMBERS

- 130** presented the Spartan Volunteer Service Award who have logged 100 hours of community engagement over the past year
- 46** solar light towers in use for campus events, reducing diesel fuel consumption by 1,000 gallons
- 20** miles of bike lanes around campus

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Campus Resources

- [Center for Community and Economic Development](#)
- [Anaerobic Digestion Research and Education Center](#)
- [MSU Extension](#)
- [MSU Recycling Center](#)
- [MSU Surplus Store](#)
- [School of Packaging](#)

SDG 12: Responsible Consumption & Production



Partnership Spotlight: Improving Sustainable Packaging

The Michigan State University [School of Packaging](#) partnered with [Bioelements Group](#) to improve sustainable packaging. Bioelements Group develops and produces alternative, biodegradable packaging that will break down into food for microorganisms. MSU is testing Bioelements materials to see if they are fit to be biodegradable in conditions that are found in the United States. Bioelements believes that MSU facilities are perfect for testing the biodegradation process and the materials viability in a controlled setting.



Researcher Spotlight: Advancing Sustainable Agriculture for the Future

[Bruno Basso](#), a John A. Hannah Distinguished Professor and MSU Research Foundation Professor in the colleges of Natural Science and Agriculture and Natural Resources, travels the world searching for solutions and insights that advance sustainable agriculture. Basso best research occurs in Michigan at locations like Sandborn Farms. Basso wants to feed the world while also protecting the environment by developing innovative solutions in crop science, sustainable agriculture, and food security.



Student Spotlight: Sustainability in Fashion

[Destiny Washington](#) is a senior double majoring in environmental studies and sustainability and French. At MSU she is researching how the fashion industry can be more sustainable. Through her research she found that many textile waste pours into countries that must spend time cleaning up after the companies that caused problems. Washington was able to do education abroad in France, where she listened, read, and learned about how French brands are engaged with sustainability in global markets.

BY THE NUMBERS

12M+	lbs of material were diverted from landfills
600,000	lbs of material were recycled to the MSU Surplus Store & Recycling Center from residence halls during student move-out
\$8,000	in revenue from new beer can recycling initiative

13 CLIMATE ACTION



Campus Resources

- [AgBioResearch](#)
- [Center for Global Change & Earth Observations](#)
- [Center for Regenerative Agriculture](#)
- [Center for Regional Food Systems](#)
- [Climate Research Support Program](#)
- [Forest Carbon Climate Program](#)
- [Kellogg Biological Station](#)
- [MSU Extension](#)
- [Plant Resilience Institute](#)



SDG 13: Climate Action



Program Spotlight: Renewable Energy Program

In February 2024, [MSU entered into a partnership with Consumers Energy](#) to advance its sustainability objectives. Under this agreement, MSU will procure 15,000 megawatt-hours (MWh) of renewable energy annually, sourced from wind and solar power, beginning in 2027. This initiative is projected to eliminate approximately 292,934 metric tons of carbon dioxide emissions, contributing significantly to MSU's goal of reducing greenhouse gas emissions by 50% by 2030 and achieving climate neutrality by 2050.



Researcher Spotlight: MSU Works with Farmers on Effective Drainage

MSU has partnered with [Sunrise Farms in Michigan](#) to improve water quality and reduce toxic algae that is located about 25 miles from the shores of western Lake Erie. MSU researcher Ehsan Ghane is examining the effectiveness of a water management system with controlled draining. Lake Erie is an impaired watershed, and climate change worsens the problem of farm pollution runoff. Together with farmers Ghane hopes that this will assist Michigan farmers to keep nutrients in the field rather than draining into surrounding water ways.



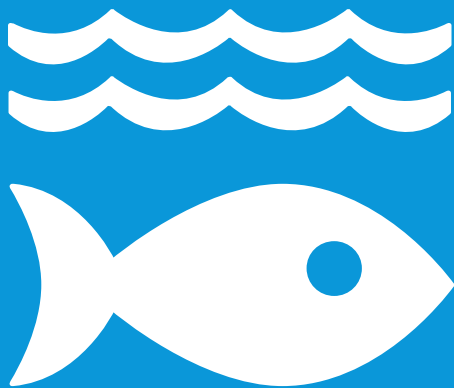
Student Spotlight: Maintaining a Beautiful World with Bees

[Jenna Walters](#) is a fifth-year Ph.D. candidate in Dr. Rufus Isaacs' lab, earning a dual degree in the Department of Entomology and the Department of Ecology, Evolution, and Behavior. Her research is focused on understanding the consequences of extreme heat on native bee pollinators and blueberry pollination systems. Walters hopes that her research helps bring attention to people from diverse backgrounds to create and implement solutions to combat climate change, save the bees and ensure a beautiful world for generations to come.

BY THE NUMBERS

- 36** percent of MSU's greenhouse gas emissions have been cut since 2010 through efficiency, solar, and waste-to-energy measures
- 150+** years of the campus arboretum promoting hands-on education and research
- 300** plants planted for MSU's first pollinator garden to bring in visits from native pollinators

14 LIFE BELOW WATER



Campus Resources

- [AgBioResearch](#)
- [Department of Fisheries and Wildlife](#)
- [Institute of Water Research](#)
- [History of the Red Cedar River](#)
- [Kellogg Biological Station](#)
- [MSU Extension](#)
- [MSU Water Alliance](#)
- [Quantitative Fisheries Center](#)

SDG 14: Life Below Water



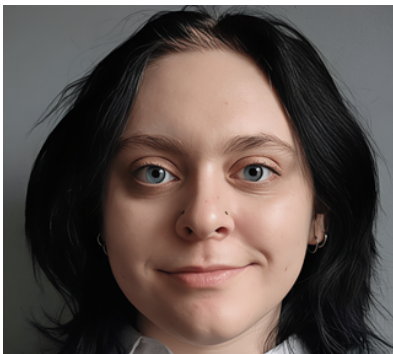
Program Spotlight: Red Cedar River Clean Up

MSU [Infrastructure, Planning and Facilities](#), had over 100 volunteers from the Spartan Community to rid the Red Cedar River of debris, and clean up litter from around the Red Cedar Natural Area on Spartan Day of Service. The team of volunteers worked to remove invasive plant species along the river removing multiple log jams to allow for recreation and improved water flow. With help from the Spartan Community almost 1000 pounds of material were removed from the natural area and river.



Researcher Spotlight: Fighting Invasive Species in Rivers

MSU researchers are [tackling how to stop an invasive fish](#) from entering a river without entirely blocking all fish. They are charged with creating a groundbreaking selective fish barrier in Traverse City. Michael Wagner, an associate professor in the Department of Fisheries and Wildlife's Applied Behavioral Ecology Lab, is helping the team as an expert on sea lampreys. MSU engineers Xiaobo Tan and Nelson Sepulveda are developing smart panels that could potentially be used as a tool in the Fish Pass.



Student Spotlight: Scholar Making Waves in Water Research

[Megan Ransler](#), a Delisa Scholar, was highlighted for her innovative undergraduate research focused on water infiltration. Her project investigates how well a constructed bioretention basin—a green infrastructure solution—absorbs and filters stormwater runoff. Megan's work contributes to improving sustainable water management practices in urban environments and reflects MSU's broader commitment to training the next generation of environmental problem-solvers.

BY THE NUMBERS

- 3,000+** steelhead trout were added the Red Cedar River by the Michigan Department of Natural Resources
- 900+** lbs of debris and litter were removed from the natural area of the Red Cedar River
- 100** years of MSU Extension providing soil testing services for Michigan residents every year

15 LIFE ON LAND



Campus Resources

- [AgBioResearch](#)
- [Center for Regenerative Agriculture](#)
- [Corey Marsh Ecological Research Center](#)
- [Forest Carbon Climate Program](#)
- [Infrastructure Planning & Facilities](#)
- [Forest Carbon Climate Program](#)
- [Kellogg Biological Station](#)
- [MSU Extension](#)
- [WJ Beal Botanical Garden](#)
- [MSU Herbarium](#)
- [Pollinator Initiative](#)



SDG 15: Life on Land



Program Spotlight: Pollinator Garden Project

The Environmental Studies and Sustainability United student group at MSU celebrated their grand opening of the first pollinator garden in September. The goal of the project was to incorporate more native plants and benefit the campus environment. The garden incentivizes visits from native pollinators, some of which are endangered, and helps with water retentions. Over 300 plants from five different species were planted in the courtyard of the Natural Resources Building.



Researcher Spotlight: MSU Alleviating Impacts of Climate Change from Mines

For seven years Michigan State University researchers have been studying soil microbial communities in Pennsylvania. The town is the site of an underground coal mine fire that has been burning for 60 years. From this fire, researchers are analyzing the effects of soil microbes in the area. Microbes are vital to maintaining healthy and fertile soil which is vital to the health of ecosystems. The team hopes that there is additional research into the development of microbiome restoration for ecosystems impacted by climate change.



Student Spotlight: Summer Internship Explores Solar Farms Effects

Jessica Watley is a sophomore dual majoring in environmental sciences and management and arts and humanities at Michigan State University. In the summer of 2024, she interned at Argonne National Laboratory where she was appointed to conduct research in the effects of solar farms on monarch butterflies. Watley's work was done in the field where she examined how solar farms impact monarch butterflies, focusing on habitat changes, land use alterations, and disruptions to migratory patterns.

BY THE NUMBERS

25

years of Project GREEN enhancing plant agriculture through research, education, food safety, and environmental stewardship

700

acres of land across campus used as resource for teaching, research and nature appreciation

\$1.95M

U.S. Department of Agriculture grant received to support underserved and diverse agriculture professionals

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



Campus Resources

- [Governmental Relations](#)
- [Indigenous Law and Policy Center](#)
- [Institute for Public Policy and Social Research](#)
- [Kelley Institute of Ethics and the Legal Profession](#)
- [McLellan Online Free Speech Library](#)
- [MSU Extension](#)
- [Office of the General Counsel](#)
- [MSU Ethics Institute](#)

SDG 16: Peace, Justice & Strong Institutions



Program Spotlight: Supporting Native Families and Tribes

The Michigan State University College of Law's Indian Law Clinic received funding to continue their work of assisting tribes with enforcement of the law. The MSU clinic regularly represents tribes in both state and federal courts on Indian Child Welfare Act cases. The NoVo Foundation provided \$400,000 in funding for the next two years. The funding allows the clinic to hire additional lawyers and administrative support to increase its capacity and provide more MSU law students with the opportunity to work on more tribal cases.



Researcher Spotlight: Changing Slavery in Current Laws

Professor Justin Simard and his students in the Michigan State University College of Law, have collected more than 12,000 cases involving enslaved people and more than 40,000 cases in which judges and lawyers have cited these cases as precedent. Simard's research has found slave cases that are not only cited in modern day lawsuits and court decisions but are also studied in law schools. Through research they have been able to prompt judges and lawyers to reconsider and reflect on the way they use citations in some cases.



Student Spotlight: Belonging in MSU International Student Association

Mahak Keswani is a senior majoring in advertising management in the College of Communications Arts and Sciences with a minor in business and entrepreneurship and innovation from Dubai. Keswani is part of the International Student Associations (ISA) that allows her to advocate for international student and making space for their voices. Through ISA Keswani will be leaving behind her efforts of inclusion, advocacy and support for future generations of international students.

BY THE NUMBERS

17,229	students were in beyond the classroom community service engagement experiences
130	recipients logged 100 hours of community engagement, representing \$751,370 financial equivalent
70+	students of Big Ten student governments were in attendance for a conference of the Association of Big Ten Students at MSU to collaborate and advocate on different policies

17 PARTNERSHIPS FOR THE GOALS



Campus Resources

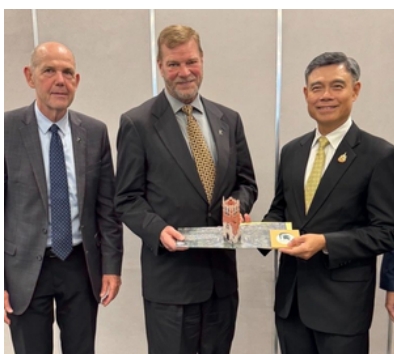
- [AgBioResearch](#)
- [Center for Interdisciplinarity](#)
- [Center for Systems Integration and Sustainability](#)
- [Governmental Relations](#)
- [MSU Extension](#)
- [Toolbox Dialogue Initiative](#)
- [University Outreach and Engagement](#)
- [Office of Sustainability](#)

SDG 17: Partnership for the Goals



Program Spotlight: Empowering Global Leaders

For the third year in a row, Michigan State University is among 28 educational institutions across the country to provide leadership institute for the Mandela Washington Fellowship for Young African Leaders. Twenty-five fellows from different African countries explored the meaning and foundations of civic engagement and the role of stories in building community. The fellows get one-on-one professional coaching with MSU faculty, staff, and local community leaders.



Researcher Spotlight: Growing Partnerships During Annual Asia Hub Meeting

MSU's Asia Hub held its annual meeting in Chiang Mai, Thailand, on November 12–13, 2024, bringing together 15 partner organizations and approximately 200 attendees to address the Water-Energy-Food (WEF) Nexus challenges. The event featured workshops and presentations aimed at fostering collaborative research and strengthening partnerships across the Asia Hub network. MSU's active participation underscores the university's commitment to international collaboration and addressing global issues through interdisciplinary research.



Student Spotlight: BSA Collaborates with MSUVote for Voter Education

The Black Students' Alliance collaborated with MSU Vote, and other student organizations, to host the "Voices of Power Black Voter Rally" to mobilize Black student voters. This rally provided voter information to Black students and discussed their role in the upcoming election. Student from different organization spoke to the crowd about the historical role of voting and the obstacles many Black Americans have faced. The goal of the event was to see more Black students getting engaged and voting.

BY THE NUMBERS

20

MSU faculty and administrators attend the annual Michigan State University's Asia Hub to engage in workshops and participate in presentations that address the challenges of the world

60+

registered student organizations rooted in sustainability

800

courses offered that address sustainability and the U.N. Sustainable Development Goals (SDGs)



The preparation of this report was led by
Tamia Jenkins, MSU Office of Sustainability.