

Annual Sustainability Report

University of
the Incarnate
Word

This report intends to inform the UIW community and all relevant stakeholders of the University's sustainability impact from July 1st, 2022 to June 30th, 2023.



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From the Sustainability Advisory Board:

This University of the Incarnate Word 2022-2023 Annual Report brings hope, whether considered from the angle of the Catholic Intellectual Tradition with its probing research or Catholic Social Teaching with broad exhortations for justice. This Report outlines how we have endeavored to listen to the “Cry of the Earth and the Cry of the Poor” as *Laudato Si'* urges us to do. Responding to such cries requires we recognize a core principle of *Laudato Si'*, bringing light and “cosmic love” to this bold endeavor to care for Creation.

The 2022-23 report reveals a circle dance of cooperation: handicraft makers in the Amazon rainforest and business students, Nutrition students and vulnerable children in Guatemala, Compost Queens and composting students, all teaching one another new ways of caring for the environment. Even the eggplants pictured on the cover of this Report taught us generously, courageously, and beautifully as they gifted us with ever more love day after day from June through January. Despite the seventy-four days over one-hundred degrees they grew and served the community. At the same time, these “teachers” call us to be generous, persistent, courageous, firm, and beautiful in the face of the challenges of climate change and environmental degradation noted by Pope Francis in *Laudato Si'* and deepened in *Laudate Deum*.

Both human and non-human agents of change in this Report are dancers reaching up to the sun, gifting us with abundant energy and bending low touching the sacred soil. Looking forward, I hope our work addresses the significance of water in our world. The pope mentions water 47 times in *Laudato Si'*. He notes five main challenges: the lack of clean drinking water, food shortages if water is lacking, water-related diseases, groundwater contamination, and privatizing or commodifying water. The UIW community is only beginning to understand that we are family with the Headwaters where indigenous and migrant groups have come for over 11,000 years in awe of what St. Francis called our sister, the holy water. We the Sustainability Advisory Board are deeply grateful to all of our partners in this circle dance of collaboration, especially the Ettlign Center for Civic Engagement and Sustainability, as well as all staff at UIW who support our endeavors. Thank you.

Sister Martha Ann Kirk, CCVI
Th.D. Theology and the Arts
College of Humanities, Arts, and Social Studies Professor Emerita

Academics



Pictured: John Hooker (Environmental Science), Kevin Salfen (CHASS), Rachel Dank (Vulcan Materials Company), and Dave Starkey (SMSE) touring the Vulcan Materials quarry in Knippa, Texas.

Faculty in Environmental Science, Biology, and Music visited Vulcan Materials Company in Uvalde, Texas, as part of a rock weatherization research project. The quarry that they visited has unique, exposed rock that has the ability to store atmospheric carbon dioxide in a permanent, safe, and mineralized form. Their tour is part of an ongoing research program aimed at mineral carbon sequestration at UIW.

This research project has also provided opportunities for undergraduate research. Seniors Manuel Venegas and Megan Weiss have integrated research on this topic into their senior theses and have contributed to the project as well.



UIW faculty member selected to be U.S. Department of Agriculture (USDA) E. Kika De La Garza Fellow. Dr. Miele, in English and Sustainability Studies, travelled to Washington, D.C., for a week in July to learn more about USDA services and programs that will benefit UIW students. He met directly with USDA agency representatives to learn of opportunities available to UIW and how to leverage UIW's status as an HSI (Hispanic-serving institution) to ensure equitable access to USDA programs, services and resources by underserved groups.



Pictured: Marcus Gary from the Edwards Aquifer Authority explains the outcrops of the Edwards Aquifer, a water-bearing rock layer that supplies the City of San Antonio with the majority of its drinking water, to students from GEOL 1401 (Physical Geology).



Aquifers are a viable part of climate change activists' efforts to ration and maintain clean water sources. Sustainable aquifers prioritize groundwater management as well as land preservation so we can continue to enjoy our lakes, and rivers without the threat of droughts, sinkholes, and other natural disasters.

Pictured: Sarai Luciano, Emma Luce, Nevaeh Freeman, and Emma Quintero picked up more than 25 trash bags full of litter in Northwest San Antonio for Earth Day 2023! The Environmental Science program has also adopted Wesley Place Park for quarterly cleanups.

Volunteer programs like this display a method of taking initiative in the fight against the climate crisis. Waste pollution directly contributes to the crisis as the decomposition process produces methane and nitrous oxide greenhouse gasses. The gasses accumulate in the troposphere layer of our atmosphere contributing to a rise in temperature and a depletion in the ozone layer. Contact John Hooker (jnhooker@uiwtx.edu) for more about this and other volunteer opportunities to help keep San Antonio beautiful!



Sustainability & Service-Learning

During the Spring 2023 semester, students in the Entrepreneurship & Small Business Management course taught by Dr. Teresa Harrison (pictured right) engaged in a social entrepreneurship project with the women of the Shipibo Tribe in Perú, who make most of their money from quality, hand-crafted artisan goods including jewelry, tapestries, key chains, and purses. Students assisted Peruvian women with generating sales to provide capital to expand their business and attract a client base, a wonderful opportunity for students to gain hands-on entrepreneurial experience.



During the same semester, Dr. Harrison tasked students in her Organizational Behavior class to map concepts learned in the course onto service they provided in the community. Specifically, they learned about the United Nations' 17 Sustainable Development goals and reflected on how each service opportunity helped to reach those goals.

Organizations served during the 2022-2023 school year:

- San Antonio Food Bank
- Ronald McDonald House
- The Headwaters at Incarnate Word
- Interscholastic Equestrian Association
- San Antonio Parks & Recreation
- San Antonio Pets Alive
- St. Stephen's Care Center

2022 UIW HEBSBA Startup Challenge Competition – the theme of the competition was Support the Growth in our Community: Searching for Students with New and Creative Ideas that Solve Real-World Problems. Below were the winners (who won seed money based on their startup ideas) and their solutions:

First Place: Bruno Fernandez (senior, Sports Management and International Business) and Regina Garza Falcon (senior, International Business and Marketing); **Wellbing** is a multi-sided digital farmers' marketplace that allows community members living in food desert areas to gain access to locally sourced food products in a simple, effective and affordable way. This is done by aggregating locally grown vegetables and specialty products from local food vendors and non-profit organizations on an online marketplace. Wellbing makes it possible for local farmers and non-profit organizations to collaborate and meet the growing demand for fresh, local and sustainable products.

Service-Learning Abroad



In May of 2023, UIW professors Beth Senne-Duff, Ph.D., Nutrition, and Sr. Martha Ann Kirk, Religious Studies, travelled to Guatemala for a one-week solidarity and service project. They and their students served a group known as the Little Angels of Mary in the village of Chiquex. Faculty and students constructed garden beds for the community and offered information on nutrition and diet. Carolina Ajozal (top left), who works for Little Angels of Mary teaching pre-school in the village, assisted in the construction of the gardens, translating into Kaqchikel and Spanish to facilitate communication between the mothers and the UIW students.



Bottom left: Edwin Mendoza Hipp and Darlene Jasso Mendoza, the founders of the Little Angels of Mary on the left in the photo. Carolina Ajozal explaining planting to the children and the mother of the family receiving the garden in the village of Chiquex. In the back: Aislinn Villarreal, Mark Duff, Shania Salinas, Carley Petru, Vallery Roberts, and Amil Bettencourt.

Lectures in Sustainability



Renowned climate scientist Dr. Katharine Hayhoe delivered a live address drawn from her latest book, *Saving Us: A Climate Scientist's Case for Hope and Healing in a Divided World*. An expert in both climate science and climate communication, Dr. Hayhoe, leverages both her expertise in atmospheric science and her evangelical Christian faith to navigate difficult conversations about our changing climate. This lecture was made possible by UIW's Interfaith Care of Creation grant.



UIW alumnus Josh Rangel (pictured above) delivered the inaugural Sustainability Studies lecture in the spring of 2023. Josh is the first Hispanic owner of a wind-turbine production and installation business in both Texas and the nation. He spoke about how his degree in Business from UIW's HEBSBA prepared him to succeed in the field of wind energy, and engaged students with an inspiring and compelling story of climate courage and personal ingenuity that enabled him to start his business from scratch.

Service Learning Showcase



Engineering students Jorge Arreola (below), Julian Garcia (above right), and Desiray Rodriguez (above left) share their capstone project, “Project Helios: Development of an Off-Grid, Solar-Powered Outdoor Workspace” which was developed under the supervision of Dr. Okan Caglayan and Daniel Potter. The prototype is now under consideration for development and construction at UIW’s main campus. They shared their work at UIW’s showcase of student research that centers on service learning, organized by SAB member Sr. Martha Ann Kirk.



Awards

**Highlight: Over \$3,000
in grant funding for
community gardens**

1

In July of 2022, the SAB was awarded a Victory Noll Sisters Small Garden Grant award of \$1,000. The funds were used to purchase a new shed, new gardening tools, and containers for the composting site. This grant application was part of UIW's commitment to the Laudato Si Action Platform. Below, UIW students, Andrea Gomez-Jackson (left) and Brendan Barber (right), pose mid-build.

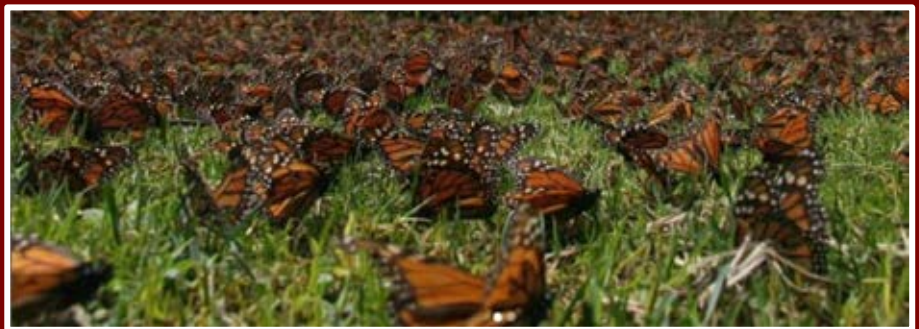
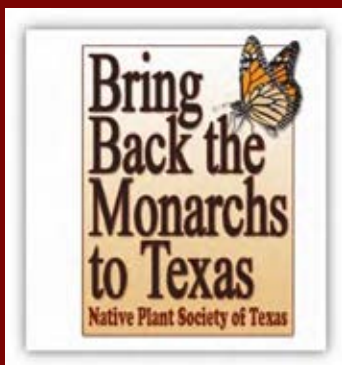


**WE'RE ALL PART OF
GOD'S PLAN(ET)**

For more information on the VNS grant program, please visit this site: <https://godsplanet.us/grants>.

In February of 2023, the Native Plant Society of Texas awarded the SAB a "Bring Back the Monarchs to Texas Pollinator Grant (BBMT)," to create a pollinator bed on campus for teaching students, both undergraduate and K-12, about the many benefits of pollinators.

2



3



May, 2023: Green Spaces Alliance of South Texas awards the SAB an “Urban Land & Water Sustainability Grant” of \$1,000. The funds were used to build out a new controlled-environment agriculture lab, or in layman’s terms, an innovative indoor growing lab. Grant funds also purchased new equipment for the UIW Community Gardens and for student volunteers, and containers for the student-run composting site. Pictured below, UIW student volunteers make use of the equipment and opportunities provided by these grant awards.



Over the summer and this fall semester, graduating senior Arianna Saballos worked alongside Dr. Miele to study the current state of UIW's Community Gardens, hosting volunteer programs and preparing the new, innovative controlled-environment grow lab (pictured below). Grant funding paid for grow lights, a mobile, 360-degree grow-light fixture, seedlings and seedling trays, a grow tower, and reflective coverings to increase the light's effectiveness. Urban agriculture is increasingly important as available arable land decreases in the US due to population growth and climate change. Stay up to date on the UIW Community Gardens via Instagram @uiw_sustain. Pictured right: just one of many harvest days in fall of 2023.



Community gardens have been a vital part of teaching urban and manufactured communities the skills necessary to rekindle a deeper connection with the Earth. Studies show that tending to nature with neighbors psychologically establishes deeper relationships, prevents violence in underserved communities, and promotes overall health and wellness. The UIW Community Gardens have hosted over 566 student volunteers since 2020, and the students' revitalization of the gardens after the 2020 shift to remote learning continues apace. This fall yielded an extremely abundant harvest and Arianna has been working on creating a field guide for how to work in the garden, the ideal time to harvest, and what to expect with climate change. Great work, Ari!



Interfaith Care of Creation

Sheena Connell, Dr. Sandy Guzman Foster, Dr. Deepti Kharod, Dr. Ben Miele, Dr. Kevin Salfen, and Sr. Martha Ann Kirk, team leader, were awarded a place in the Institute of Interfaith Excellence sponsored by the AACU&C and Interfaith America for the proposal “Interfaith Care of Creation.” With this came \$3,000 in funding that supported partners of diverse faiths sharing on sustainability, including members of the Bahá’í, Sikh, Hindu, Jewish, Muslim, Buddhist, and Coahuiltecan faiths. It also provided stipends for faculty guiding students in events and service projects. Our faculty partners include Dr. Ummugul Bulut, Dr. Julian Davis, Dr. Orit Eylon, Dr. Timothy Griesdorn, Dr. Trey Guinn, Dr. Tara Hembrough, Dr. Suleyman Tek, and Dr. Ana Valor.

Pictured: top right, UIW students discussing food and spirituality with Sikhs;



Second from top, UIW community members celebrate Indigenous People’s Day at the Headwaters of the San Antonio River;



Third from top, over a hundred members of the UIW community joined millions of people across the world in celebrating Diwali, the Festival of Lights, which gives hope for new beginnings and the triumph of good over evil;



Bottom, on UIW’s Peace Day celebration, Dr. Heather Frazier guided her Nutrition class in a display on sustainable food habits inspired by Pope Francis’s encyclical *Laudato Si’*.



Leadership in Sustainability

Every April, the Sustainability Advisory Board presents “The William Mulcahy Award for Ecological Stewardship”

Created in 2007 to honor the dedication and leadership shown by beloved Grounds Superintendent William “Bill” Mulcahy, this award recognizes students, faculty and staff who have exemplified Mulcahy’s commitment to ecological conservation and care of Creation, two central facets of the UIW Mission Statement.

Two awards are given out each year. This year, Dr. Miele, Sustainability Advisory Board Chair, presented the awards to Andrea “Andy” Gomez-Jackson (bottom left), who was recognized with the inaugural student award, and UIW’s Chief Financial Officer, Dr. Darrell Haydon (bottom right). Congratulations to both!



Andy's leadership on display: she leads Arthur Dawes of Pax Christi Texas through the UIW Community Gardens as part of her participation in the Laudato Si Action Platform.



organization at UIW. Not only did Andy construct a new equipment shed in the UIW Community Gardens using grant funds from the Victory Noll Sisters Fund, but she also worked with leaders from the Laudato Si Circle in San Antonio, Texas including Alejandro Balderas and Brother Adolf Apuuli, who oversees the Laudato Si movement in Uganda (middle and right above, respectively). She even wrote an article for *Today's Catholic* to advocate for greater care of Creation.

Dr. Haydon was recognized for his ambition, dedication, and attentiveness to the challenges we face in the twenty-first century. His ambition to precipitate a profound cultural change at UIW is matched only by his vision for getting us to such a goal. Dr. Haydon indeed puts into practice his personal sentiment that sustainability is near and dear to his heart. Thanks to him, UIW is the first institution of higher education in Central Texas to have a dedicated campus-wide composting system, operated by a local, woman-owned business in San Antonio, Compost Queens.



bokashi (ぼかし)

Pronunciation:

boh-**kah**-she

1. Horticulture.

a. Meaning

“fermented organic plant materials” in Japanese, bokashi combines bran or sawdust with probiotics, beneficial bacteria that ferment (AKA anaerobically digest) organic matter. This cuts down on methane emissions from food waste.



Impact of UIW's Growing Compost Initiative

Food waste diverted at UIW:

- Fall 2022, 762 lbs.
- Spring 2023, 581 lbs.
- Summer 2023, 980 lbs. (start of Compost Queens haul)

By diverting 2,323 lbs. from the landfill this past year, UIW reduced methane emissions by 87 MTCO₂e (metric ton of carbon dioxide equivalent).



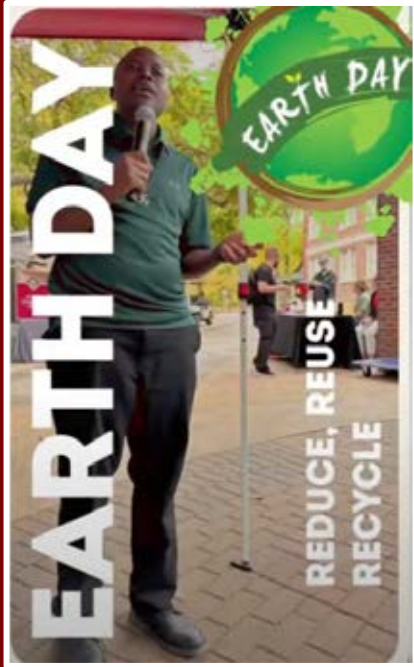
Operations, Planning, and Design

Highlight: UIW selects Compost Queens as its dedicated compost hauler



Decision makes UIW the first institution of higher education in Central Texas to have a dedicated campus-wide composting system. Compost Queens is a woman-owned business based right here in San Antonio, Texas. Below, students add compost to garden beds in UIW Community Gardens.





Above: Brother Adolf Apuuli, of Laudato Si movement in Uganda.
 Below: Gary Perez, former board member of the Headwaters Sanctuary



Earth Fair 2023
 UIW's ISSS (International Student and Scholar Services) Office worked closely with the Sisters of Charity of the Incarnate Word to put together a dual-intentioned, fair trade, low-waste, international and environmentally sustainable event. They have been selecting local and international vendors and organizations who represent these ideals, and then inviting them to our campus to share their knowledge with the UIW community. Once again, the Fair was a rousing success, with vegan tacos, bags, and succulent plants given to attendees throughout the event. Sr. Martha Ann Kirk (top middle) kicked off the event with an impassioned call for care of Creation, and local poet Sacred Fantasy (bottom middle) also spoke at the event. With over 300 guests, this event had the highest participation rate of any UIW Earth Fair held to date.