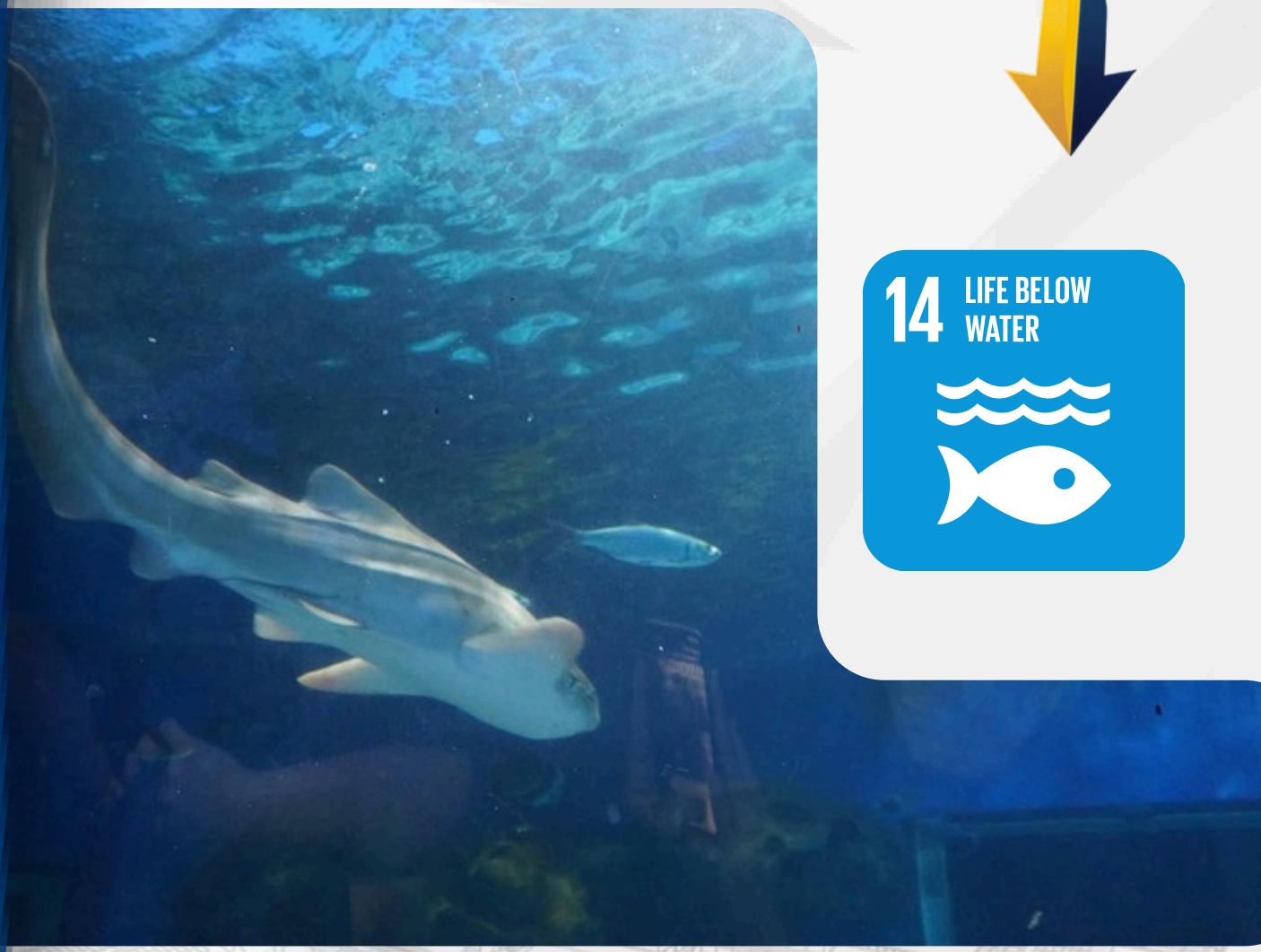
SAINT LOUIS UNIVERSITY

Baguio City, Philippines

Metric 14.5 Maintaining a local ecosystem



14 LIFE BELOW WATER

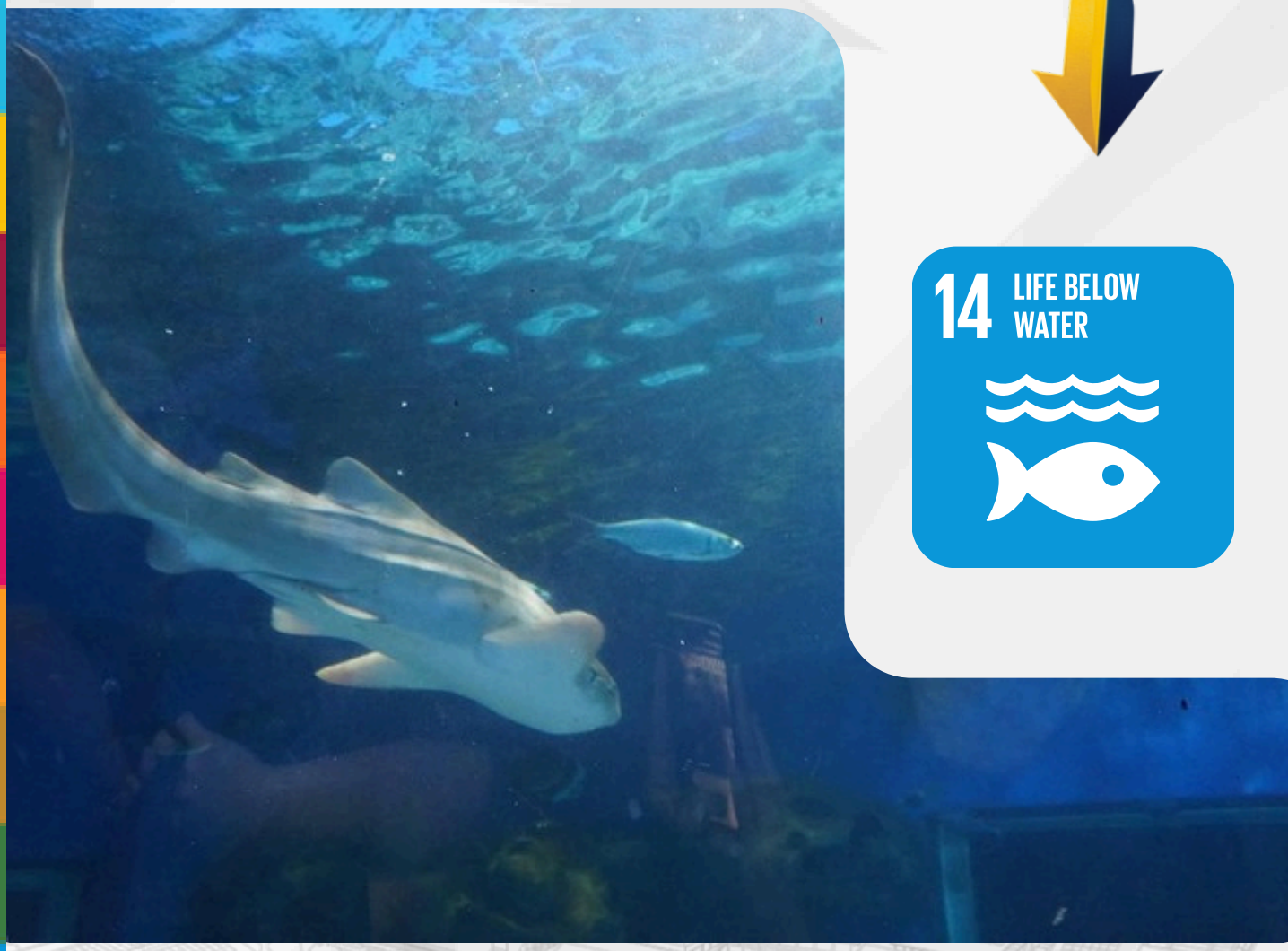
Times Higher Education Sustainability Impact Ratings

AY 2025-2026

SAINT LOUIS UNIVERSITY

Baguio City, Philippines

Indicator 14.5.5 Watershed management strategy



14 LIFE BELOW WATER

Times Higher Education Sustainability Impact Ratings

AY 2025-2026

Saint Louis University's Integrated Watershed Management Strategy

From headwaters to river basins

Saint Louis University (SLU), as a leading higher education institution in Baguio City, the headwater region of major river systems in Northern Luzon, implements an integrated watershed and water management strategy.

SLU's approach includes campus infrastructure, scientific monitoring, community creek adoptions, and partnerships with government agencies to protect regional water resources and aquatic biodiversity from mountain sources to downstream ecosystems.



On-Campus Infrastructure and Upstream Water Stewardship

SLU's watershed management strategy begins on campus by minimizing raw water extraction and preventing untreated runoff from entering the city's drainage network.

- Advanced Rainwater Harvesting Systems: Rooftop catchments across university buildings capture rainfall, routing it through filtration units into high-capacity storage tanks. This harvested water is repurposed for non-potable campus operations—including facility cleaning, landscape irrigation, and vehicle maintenance—reducing stress on local groundwater aquifers.
- On-Site Wastewater Treatment & Circular Reuse: All campus wastewater is processed through DENR-regulated Sewage Treatment Plants (STPs) using biofiltration, sedimentation, and ozonation. This ensures that discharged water meets strict national effluent standards, aligning directly with UN SDG 6 (Clean Water and Sanitation).
- Regional Environmental Leadership: SLU's comprehensive sustainability initiatives earned the university the #443 rank globally in the UI GreenMetric World University Rankings, establishing SLU as the top green campus in the Cordillera Administrative Region (CAR).



Direct Watershed Protection and Forest Ecosystem Restoration

To preserve the biological integrity of Baguio's primary water sources, SLU actively engages in physical watershed maintenance and forest conservation.

In formal partnership with the Community Environment and Natural Resources Office (CENRO Baguio), student-scholar organizations—such as the Baguio Academic Guild of Scholars (BAGGS) along with engineering and environmental student bodies—conduct sustained field actions in the Busol Watershed, Baguio's primary forest reserve:

- The TANAW Tree Maintenance Program: Student groups conduct regular weeding, sapling care, and soil enrichment to maximize reforestation survival rates.
- Invasive Species Eradication & Debrising: Volunteers systematically clear invasive plant species that choke native vegetation and remove solid waste debris to prevent stream blockage and soil erosion.



In celebration of Scholars' Week 2026, the Baguio Association of Government Grantees and Scholars–SLU (BAGGS) launched TANAW: One Scholar, One Tree Project on February 28, 2026, at the Busol Watershed in Ambiong, Baguio City. The half-day tree maintenance activity engaged scholars in promoting environmental sustainability, ecological responsibility, and leadership through hands-on community action.



In partnership with the Community Environment and Natural Resources Office–Baguio City and the Department of Environment and Natural Resources–CAR (DENR-CAR), the initiative strengthened student participation in local environmental protection efforts while providing practical learning experiences in environmental stewardship.

The project brought together student communities from across SLU and partner institutions, including the Society of Medical Laboratory Scientists (SMLS), Youth Council of Ecolodians of SLU (YCE), Red Cross Youth–SLU (RCY-SLU), The Buttress, Philippine Institute of Chemical Engineers–Junior SLU Chapter (PICHE-JSLUC), Association of Competent and Empowered CAR DOST Scholars (ACE CARDS), Air and Waste Management Association–SLU Student Chapter (AWMA-SLUSC), and International Students' Association (ISA). Their participation demonstrated how collaboration can unite diverse student groups around a shared commitment to environmental protection.



For the scholars, the activity provided not only an opportunity to contribute to the environment but also a meaningful break from academic demands. As BAGGS–SLU Executive President Krister P. Pereyra shared, environmental activities allow scholars to engage in environmental protection while enjoying meaningful experiences beyond the classroom.

TANAW demonstrated how student leadership, institutional partnerships, and collective action can transform environmental advocacy into tangible community impact, while nurturing a stronger culture of ecological responsibility among young people.





environmental activities allow scholars to engage in environmental protection while enjoying meaningful experiences beyond the classroom

- Krister P. Pereyra, BAGGS President.







Source:

https://www.facebook.com/profile/100088255063533/search/?q=TANAW%3A%20One%20Scholar%2C%20One%20Tree%20Project%20

In celebration of Civil Engineering Month, the Philippine Institute of Civil Engineers (PICE)–Baguio Chapter, together with the PICE Saint Louis University Student Chapter, PICE University of Baguio, and PICE University of the Cordilleras, conducted a tree nurturing activity at the BWD Watershed in Military Cutoff on November 16, 2025.

Bringing together practicing and future civil engineers, the activity promoted environmental stewardship, sustainability, and community responsibility. Beyond their role in building communities and infrastructure, the participants demonstrated their shared commitment to protecting the natural environment.

The initiative reflects how professional and student organizations can work together to turn environmental advocacy into meaningful action—nurturing a greener and more sustainable future, one tree at a time.

https://www.facebook.com/profile/100063764899290/search/?q=Tree%20Nurturing%20Activity







Community Water Mapping and Tributary Rehabilitation

SLU extends its watershed strategy into surrounding municipal communities through academic extension, water quality mapping, and river adoption programs.

- "FlowCheck" Water Mapping Assessments: Academic departments, including Chemistry and Industrial Engineering, conduct community-based water quality assessments. Through projects like "FlowCheck," faculty and students analyze water safety, trace localized pollution sources, and map hydrological parameters in barangays such as Happy Hallow.
- Adopt-a-Creek & Bued River Protection: Through partnerships with local government units—such as Barangay Camp 7—SLU adopts critical mountain creeks along Verdepino Drive. By conducting regular cleanups, bank stabilization, and joint ocular inspections, SLU protects vital tributaries that feed into the broader Bued River basin.



Scientific Research and Inter-Agency Linkages for Aquatic Biodiversity

Recognizing that effective watershed management relies on scientific data, SLU integrates academic research with specialized government research bodies.

Biology and environmental science students undertake targeted internships, field studies, and research projects in collaboration with the Watershed and Water Resources Research, Development, and Extension Center (WWRRDEC) located in Camp John Hay. These research linkages focus on monitoring location-specific aquatic species, assessing macroinvertebrate health, analyzing water-quality bioindicators, and designing scientific interventions tailored to the unique biodiversity of Cordillera freshwater ecosystems.



A Model for Highland-to-Coastal Environmental Stewardship

By uniting on-campus water recycling, field-level forest reserve maintenance at Busol Watershed, community-level tributary rehabilitation, and rigorous research with WWRRDEC, Saint Louis University demonstrates a complete implementation of Watershed Management Strategies.

SLU's multi-layered strategy proves that protecting shared aquatic ecosystems and location-specific biodiversity begins with proactive, research-driven watershed management at the headwaters.





Sources:

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SLU Participatory Approach for Riparian and Aquatic Biodiversity Assessment

Saint Louis University (SLU) implemented a watershed management strategy in the Lower Agno Watershed Forest Reserve by adopting a participatory approach that engaged local stakeholders, including government units and indigenous communities, to conduct comprehensive biodiversity assessments tailored to specific locations like the Bued and Balog rivers. This strategy focused on generating scientific data based on the location-specific diversity of aquatic and riparian species—such as identifying distinct dominant vegetation families (e.g., Fabaceae in Bued River versus Lamiaceae in Balog River) and monitoring seasonal variations in phytoplankton, zooplankton, and macrobenthos abundance. By analyzing these biological indicators alongside physicochemical parameters across established sampling stations, SLU established a baseline for monitoring ecosystem health, thereby facilitating the creation of sustainable and resilient management plans grounded in the specific ecological realities of each river system.

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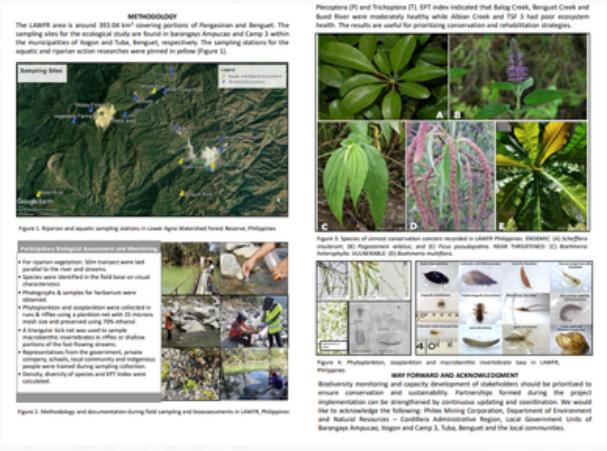
Participatory approach for riparian and aquatic biodiversity assessment and monitoring: A case in Tuba, Benguet, Philippines

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ABSTRACT

Riparian and aquatic ecology within the mountainous portion of the Lower Agno Watershed Forest Reserve (LAWFR) were investigated to generate scientific data for a sustainable and resilient ecosystems in Tuba, Benguet, Philippines. Participatory approach was implemented with the collaborative support Department of Environment Natural Resources, local government units, private companies and local communities including indigenous peoples. The overall riparian plants identified were 69 species, 24 families of angiosperms, 1 gymnosperm, and 6 pteridophyte groups. Nine were reportedly known as invasive, indicating level of disturbance along rivers. Aquatic life forms in all five rivers comprised of 28 phytoplankton genera under 4 phyla (Bacillariophyta, Charophyta, Chlorophyta, and Cyanophyta), where Chlorophyta was found frequently occurring and highly dense. Zooplankton consisted of 12 taxa, with one new species listed onsite as *Brachionous angularis*. Seventeen periphyton taxa under 4



Published in the XV World Forestry Congress Site:
https://openknowledge.fao.org/server/api/core/bitstreams/44fdef02-e91a-4e0a-a0ec-472a755d747f/content

SLU Architecture Students Lauded for Stormwater Park Design

Saint Louis University (SLU) implemented a watershed management strategy by conducting comprehensive assessments of aquatic biodiversity to establish location-specific baselines for ecosystem health. By identifying and cataloging the diversity of aquatic species present in specific zones of the watershed, the university utilized these organisms as biological indicators to determine water quality levels and ecological stress points.

This data-driven approach allowed SLU to tailor their conservation initiatives—such as community-based river cleanups and habitat restoration projects—to address the unique biological requirements and pollution challenges of different river sections, ensuring that management strategies were directly responsive to the living conditions of the local aquatic life.



Published in the Baguio City Public Office Facebook Page: https://www.facebook.com/100044399560402/posts/1051740372982605/?rdid=MTXEwiUBiEVj4uUX&_rdc=2&_rdr#

ECO-GOVERNANCE IN ACTION

Tinig at Tindig: Eco-Governance in Action! was a two-day advocacy forum held on November 15–16, 2025, engaging YCE members in discussions on Indigenous Peoples and Climate Justice, Eco-Governance, and Accountability.

The forum strengthened participants' understanding of sustainable and inclusive governance, while fostering environmental leadership, civic responsibility, and greater awareness of the role of young people in advancing climate-responsive and accountable communities.



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https://www.facebook.com/100044399560402/posts/1051740372982605/?rdid=MTXEwiUBiEVj4uUX&_rdc=2&_rdr#

During National Environmental Awareness Month in November 2025, YCE supported an advocacy led by PALS-NCPAG to promote environmental protection and sustainable development. Through the signing of a statement on environmental accountability, the initiative strengthened youth advocacy for effective environmental policies, climate action, and equitable resource allocation.



The activity highlighted the role of young people in promoting environmental responsibility and advancing sustainable and inclusive development.



Source:
https://www.facebook.com/profile/100088255063533/search/?q=Tinig%20at%20Tindig





The SLU SDG Report 2026