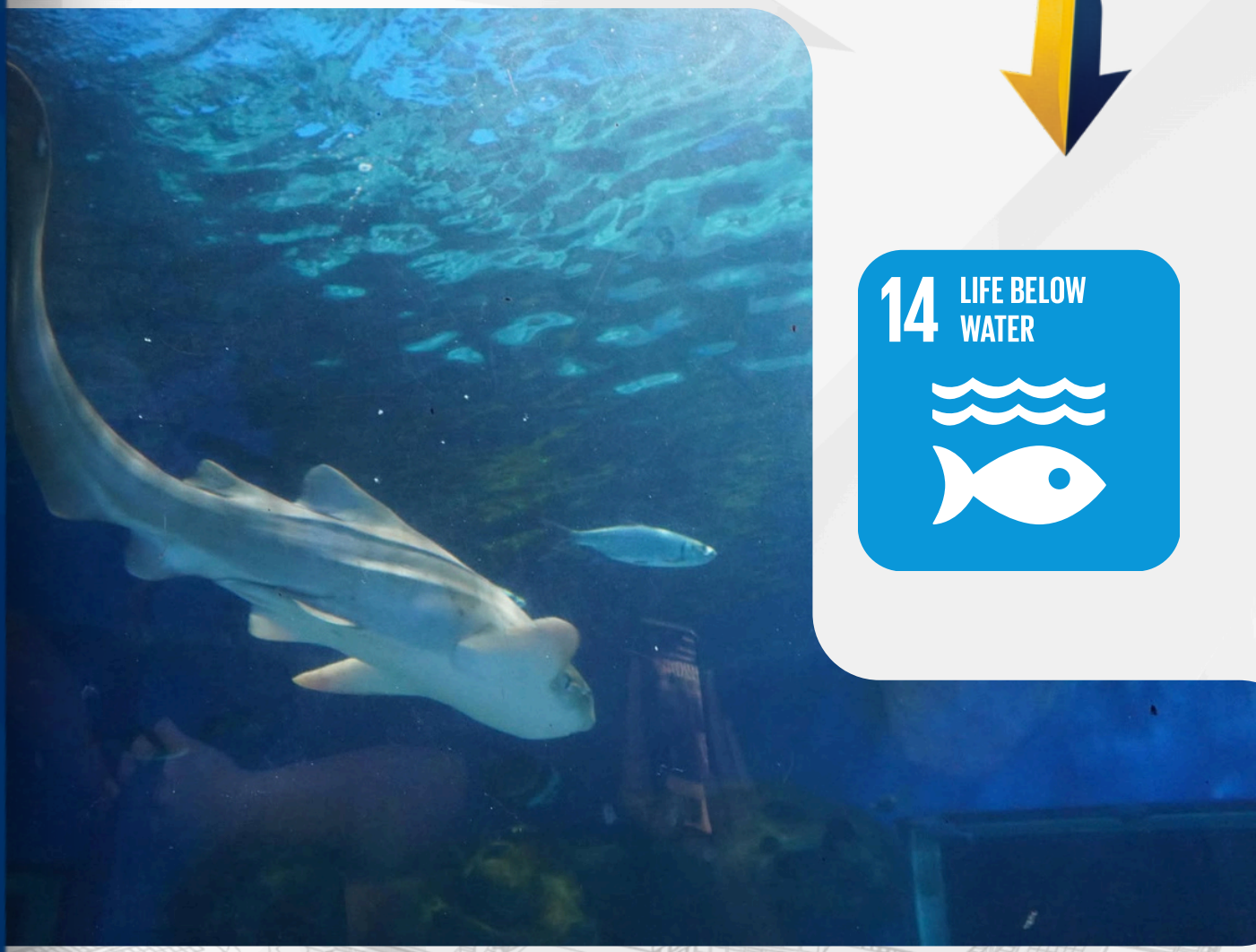
SAINT LOUIS UNIVERSITY

Baguio City, Philippines

Metric 14.5 Maintaining a local ecosystem



14 LIFE BELOW WATER

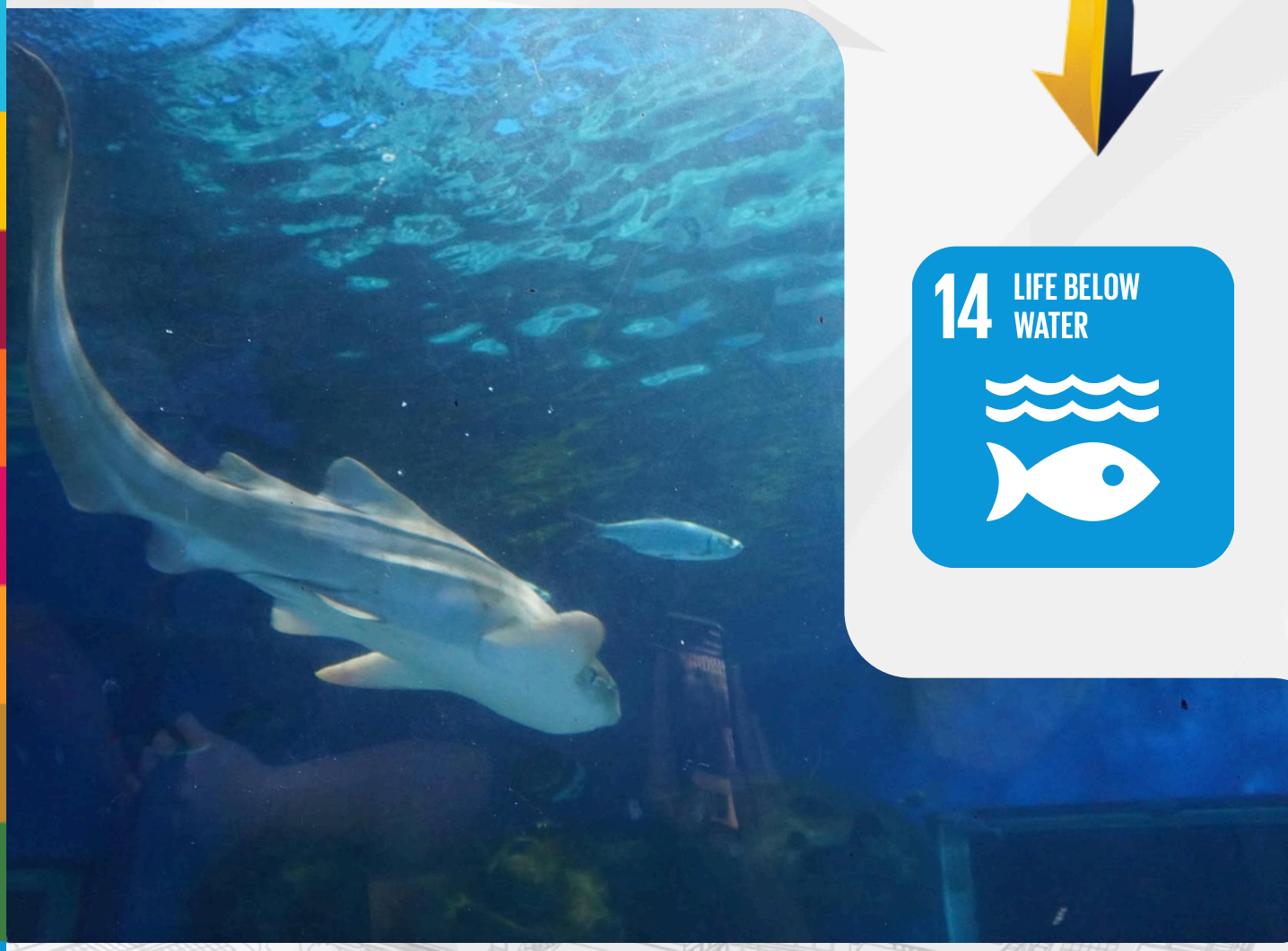
Times Higher Education Sustainability Impact Ratings

AY 2025-2026

SAINT LOUIS UNIVERSITY

Baguio City, Philippines

Indicator 14.5.1 Minimizing alteration of aquatic ecosystems (plan)



14 LIFE BELOW WATER

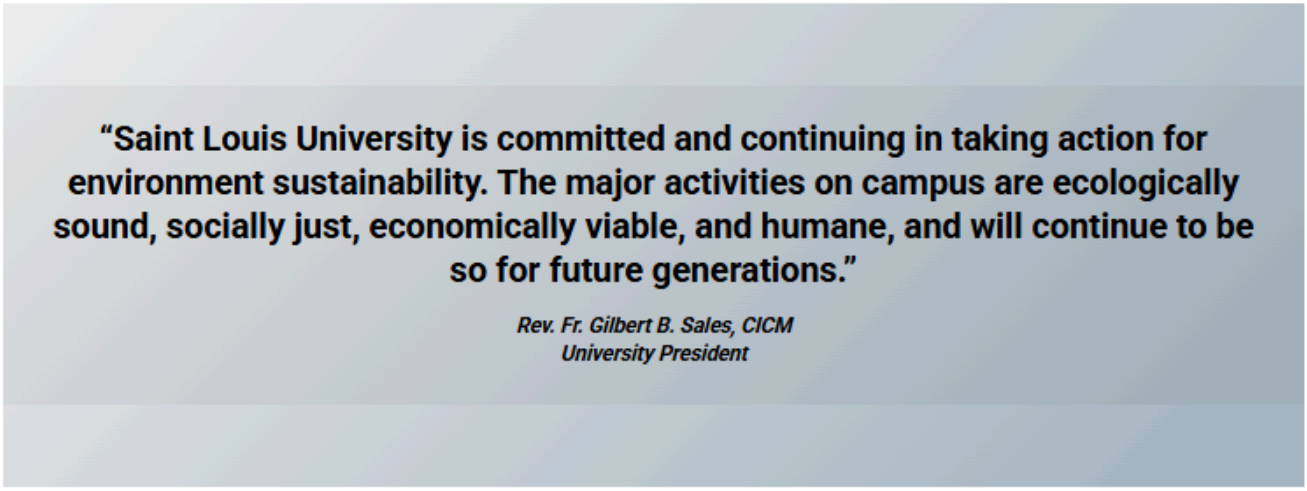
Times Higher Education Sustainability Impact Ratings

AY 2025-2026

Saint Louis University's Institutional Plan to Minimize Aquatic Ecosystem Alterations

Safeguarding Headwater Integrity

Located at the headwaters of major river basins in Northern Luzon, Saint Louis University (SLU) in Baguio City enforces a comprehensive environmental management plan. Grounded in the SLU Environmental Policy Statement signed by the University President, this plan mandates pollution prevention, strict regulatory compliance, and proactive aquatic stewardship to protect freshwater streams, river systems, and downstream marine habitats.



Source:
https://www.slu.edu.ph/environmental-programs/

Minimizing Physical Alterations: Hydrological Control and Erosion Prevention

Physical alterations—such as flash runoff, riverbank erosion, siltation, and stream channel disruption—severely degrade headwater habitats. SLU's institutional plan mitigates these impacts through sustainable water infrastructure and forest reserve management:

- Rainwater Harvesting and Surface Runoff Reduction: Rooftop catchments across university facilities—such as the Diego Silang rainwater storage system—capture rainfall at the source. By storing water for campus non-potable operations (landscape maintenance, facility cleaning), SLU mitigates urban storm runoff, reducing peak discharge volumes that cause riverbank scouring and bed siltation in local streams.
- Watershed Soil Stabilization: In partnership with CENRO Baguio, SLU student groups execute the TANAW tree care initiative in the Busol Watershed. Reforestation, sapling maintenance, and erosion control stabilize mountain slopes, preventing sediment buildup that chokes aquatic habitats in regional river basins.
- Tributary Rehabilitation: Through "adopt-a-creek" community agreements with Barangay Camp 7 along Verdepino Drive, SLU conducts joint ocular inspections and bank clearance drives. Clearing debris and stabilizing creek beds prevents physical blockages and maintains natural flow regimes feeding the Bued River basin.



Sewerage Treatment Plan at the Main Campus


Solar Panels at the SLU Sacred Heart Medical Center


Rainwater Storage System at the Diego Silang Building


Sustained Tree Planting Projects of SLU


SLU Baguio has taken its commitment to sustainability a step further,


SLU Sewage Treatment Plants

Minimizing Chemical Alterations: Advanced Effluent Treatment and Hazardous Containment

Chemical alterations—including heavy metal contamination, nutrient overloading, microplastic accumulation, and pH shifts—pose immediate threats to aquatic species. SLU's plan enforces multi-layered chemical containment protocols:

- Multi-Stage Sewage Treatment Plant (STP) Upgrades: All campus domestic and facility wastewater is processed through DENR-regulated STPs utilizing advanced biofiltration, sedimentation, and ozonation technology. This multi-stage process neutralizes organic loading (BOD/COD), balances pH, and filters total suspended solids (TSS) before discharge.
- Hazardous Waste Containment (GL-CMS-015): Under guideline GL-CMS-015 (Proper Disposal of Environmental Health Hazard Wastes), SLU enforces strict segregation, labeling, and storage of laboratory chemicals, acids, heavy metals, and medical reagents.
- Zero-Chemical Discharge MOA: A formal partnership with Servo-Treat Philippines, Inc. ensures that all hazardous chemical, infectious, and electronic wastes are transported off-site by DENR-accredited handlers, guaranteeing zero toxic chemicals enter campus drains, municipal sewers, or the Balili and Bued Rivers.
- Plastic & Styrofoam Reduction: Strict administrative bans on single-use plastics and styrofoam across all campuses prevent microplastics and toxic chemical leachates from entering urban stormwater drains.



Minimizing Biological Alterations: Pathogen Control and Biodiversity Protection

Biological alterations occur when pathogen loading, invasive species, or habitat destruction disrupt native aquatic biological communities. SLU's strategy integrates biological safeguards across upland and coastal zones:

- Ozonation Pathogen Destruction: Effluent treated in SLU's STPs undergoes ozonation disinfection. This eliminates fecal coliform and harmful pathogens prior to off-site release, protecting downstream microbial balance, wildlife, and public health.
- Eradication of Invasive Aquatic/Riparian Flora: Volunteer student drives in the Busol Watershed systematically remove invasive plant species that displace native vegetation and choke natural stream ecology.
- Cross-Regional Marine Biodiversity Partnerships: Recognizing the ecological continuum between highland watersheds and coastal environments, SLU's Youth Council of Ecolodians (YCE) collaborates with Coastal Underwater Resource Management Actions (CURMA) in La Union. This partnership supports community talks, coastal cleanups, and nesting habitat protection for endangered sea turtles (Pawikan).



Institutional Governance and Transparent Verification

SLU's plan to minimize aquatic ecosystem alterations is validated by ongoing regulatory oversight. Designated Pollution Control Officers (PCOs) and the Campus Planning, Maintenance, and Security Department (CPMSD) oversee environmental compliance.

The university submits Quarterly Self-Monitoring Reports (SMRs) directly to the Department of Environment and Natural Resources – Environmental Management Bureau (DENR-EMB), providing verifiable, transparent data that campus discharges meet national environmental safety standards.

Through its University policies, investments in wastewater technology, strict hazardous waste protocols, and watershed partnerships, Saint Louis University demonstrates a comprehensive, actionable plan to ensure its operations actively prevent the physical, chemical, and biological degradation of shared aquatic ecosystems.









The SLU SDG Report 2026