Industrial University of Ho Chi Minh City

SDG 15
LIFE ON LAND

IUH RANKINGS MANAGEMENT

SDG 15

LIFE ON LAND

TÀI NGUYÊN VÀ MÔI TRƯỜNG TRÊN ĐẤT LIỀN

THE Sustainability Impact Ratings 2027

Data year	Metrics	Indicators
2025	3	14

IUH's contribution to the conservation, restoration and sustainable use of terrestrial ecosystems through education, research, community collaboration, campus management and ecosystem-friendly waste management.

NATURAL RESOURCES GROUP

SDG Working Group • 7 members



Đỗ Hoài Vũ

GROUP LEADER

Vice Dean · Faculty of Fundamental Sciences



Bùi Thị Hảo

MEMBER · VICE DEAN

Faculty of Law and Political Sciences



Cao Thu Thủy

MEMBER · LECTURER

Institute of Environmental Science, Engineering and Management - IESEM



Nguyễn Khôi Nguyên

MEMBER · LECTURER

Faculty of Automotive Engineering Technology



Đinh Thị Hoa

MEMBER · LECTURER

Faculty of Foreign Languages



Lê Thị Hồng Nhung

MEMBER · SPECIALIST

Office of Testing and Quality Assurance



Lý Xuân Hải

MEMBER · SPECIALIST

Office of Testing and Quality assurance

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.1 Events about sustainable use of land

Events promoting the conservation and sustainable use of land, forests and natural areas.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 2: Enhancing community service connections	Encourage students to participate in community service (Number of campaigns organized; Number of participating students; Community satisfaction rate)	Organize the Launching Ceremony of "Tree Planting Festival in eternal gratitude to Uncle Ho" and a series of tree planting days to restore natural green space on campus, campuses, and in coordination with Can Gio/Cu Chi District Youth Union to plant windbreak trees and prevent soil erosion	2025 tree planting event plan and organization records; Statistics on the number of new native trees planted; List of participating students and local residents; Field photo reportage	Youth Union – Student Association, University Trade Union, Institute of Environmental Science, Engineering and Management, Office of Administration and Management	Q1 – Q3/2025
Thrust 1: Pioneering in education and research Thrust 2: Community service	Technology transfer Expand community connection activities (Number of environmental awareness raising events)	Organize International Day of Forests (March 21) and Earth Day 2025: a series of workshops and policy dialogue seminars on "Wetland Conservation and Sustainable Land Use under Urbanization Impacts" with the participation of experts, managers, and businesses	Event organization records for International Day of Forests and Earth Day 2025 (plan, invitation letters for external delegates, seminar proceedings, media news bulletin)	Institute of Environmental Science, Engineering and Management, Center for Information and Communication	Q1 – Q2/2025
Thrust 2: Enhancing community service connections	Increase community linkages outside IUH (Number of linkages; Number of participating staff and lecturers)	Co-organize and provide technical sponsorship for the campaign "Protecting Green Corridors and Combating Suburban Agricultural Land Degradation" in coordination with the Farmers' Association and local authorities	Joint minute on campaign coordination to protect natural land; Letter of appreciation from local authorities for IUH's technical and human resource support	Office of Political Affairs and Student Support, Youth Union – Student Association, Institute of Environmental Science, Engineering and Management	Q2 – Q4/2025
Thrust 2: Enhancing community service connections	Diversify media channels (Diversify news content; Number of interactions)	Multimedia communication on land conservation and forest development events on the IUH website, social media, and local media; launch messages calling on the community to end forest land encroachment and land degradation	URLs of communication posts on land and forest conservation events; Set of media publications (poster/infographic) spread in the community	Center for Information and Communication, Youth Union – Student Association	Q1 – Q4/2025
Thrust 2: Enhancing community service connections	Enhance community service projects (Number of beneficiaries; Community satisfaction rate)	Synthesize quantitative data on land and forest conservation events in 2025: number of attendees, number of trees planted, land area restored with green cover, and prepare a summary report to submit to THE Portal	2025 summary report on events promoting conservation and sustainable use of land and forests of IUH for THE Impact Rankings verification	Institute of Environmental Science, Engineering and Management, Office of Political Affairs and Student Support	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.1

Events about sustainable use of land

Events promoting the conservation and sustainable use of land, forests and natural areas.

ACTIVITY EVIDENCE



Article title 1

Faculty of Foreign Languages joins forest planting at Phuoc Buu Nature Reserve (Ba Ria – Vung Tau)

Article link

Participant list dated 15/06/2025 (Faculty of Foreign Languages)

Description

On 15/06/2025, as part of the programme “Study Tour – Community Service 2025” (Ho Tram, 14–16/06/2025), 42 lecturers and staff of the Faculty of Foreign Languages, Industrial University of Ho Chi Minh City, took part in forest planting at Phuoc Buu Nature Reserve, Ba Ria – Vung Tau Province.

In the forest-tree Arboretum, members dug planting holes, planted and earthed up seedlings under the natural forest canopy. The activity helped maintain and restore forest vegetation in the reserve and raised staff awareness of conserving and sustainably using forest ecosystems.



Article title 2

IESEM joins the “Greening Nghinh Phong Cape” tree-planting programme (Vung Tau, 09/06/2025)

Article link

IESEM post (09/06/2025): facebook.com/vienmoitruong
Activity video: https://youtu.be/OgtZMCDqejo

Description

On 09/06/2025, lecturers of the Institute for Environmental Science, Engineering and Management (IESEM), IUH, joined the programme “Greening Nghinh Phong Cape” (Vung Tau City), held to mark the 50th anniversary of the Liberation of the South and National Reunification, together with the Vung Tau City Border Guard Station and the Green Journey Club.

The team planted and tended tropical almond trees – a native coastal species tolerant of wind and salinity – on the bare hillsides of the cape. The programme aims to green bare land, diversify the local ecosystem and spread nature-protection awareness among students and the community.



Article title 3

Faculty of Fundamental Sciences supports tree planting and care programmes

Article link

Thank-you letters from the HCMC Association for Nature and Environment Protection (16/06/2026) and the Green Journey Club – Vung Tau Veterans (16/07/2026)

Description

The Faculty of Fundamental Sciences, IUH, donated 500 trees to the programme “One Million Trees for the Nation's Seas and Islands, for a Green Vietnam” of the HCMC Association for Nature and Environment Protection (thank-you letter dated 16/06/2026).

The Faculty also sponsored VND 10,000,000 for the tree planting and care programme of the Green Journey Club – Vung Tau Veterans (thank-you letter dated 16/07/2026). This evidences IUH's supporting role in tree-planting and greening programmes run by civil-society organisations and local communities.

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.2 Sustainably farmed food on campus

Policy ensuring food on campus comes from sustainable agricultural production.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 3: Modern and convenient infrastructure	Build a green campus Infrastructure management and maintenance (Enhance utility service quality)	Formulate and issue IUH's Campus Sustainably Farmed Food Policy: clearly specifying clean food standards, prioritizing organic produce, VietGAP/GlobalGAP certified items, local sourcing, ensuring biosafety and animal welfare.	University-level decision issuing the sustainably farmed food policy (clearly specifying Policy Created and Policy Reviewed in the 2022–2026 period according to THE standards).	Office of Investment Planning, Office of Dormitory and Service Management, Board of Rectors	Q1 – Q2/2025
Thrust 5: Enhancing sustainable financial autonomy	Reasonable investment in education and infrastructure (Procurement of materials, catering services)	Include mandatory criteria regarding the proportion of sustainable agricultural products (minimum 60% certified sustainable fruits, vegetables, meat, and eggs) in Bidding Documents and Contract Appendices for operating canteens and school dining halls.	Bidding Documents and Canteen Service Contracts containing binding clauses on supplying food from sustainable agricultural chains and farm traceability invoices.	Office of Investment Planning, Office of Finance and Accounting, Office of Dormitory and Service Management	Q2/2025
Thrust 3: Modern and convenient infrastructure	Increase utility services for students (% satisfaction with canteen services, food safety)	Conduct monthly routine and unannounced inspections of fruit, vegetable, meat, and egg suppliers at university canteens: verify VietGAP certificates, farm origins, and food sample storage per health regulations.	Periodic food safety and farm-origin verification inspection minutes; Summary evaluation report on food supply quality in 2025.	Office of Dormitory and Service Management, Office of Services	Q1 – Q4/2025
Thrust 2: Enhancing community service connections	Expand community connection activities towards active citizenship development	Organize training for canteen management teams and kitchen staff on sustainable food supply chains; publicly display safe farm-produce origin boards at service counters for learners and staff to monitor.	Training materials on sustainable agricultural procurement; Organic/VietGAP farm-produce origin notice boards posted at canteen counters.	Institute of Biotechnology and Food Technology, Office of Dormitory and Service Management, Office of Services	Q2 – Q3/2025
Thrust 2: Enhancing community service connections	Assess service environment Diversify public communication	Publicly announce the policy document on the IUH website; prepare the 2025 Annual Report evaluating compliance levels and the ratio of sustainable agricultural products consumed across the university for THE Portal submission.	URLs of the public sustainable food policy document; 2025 compliance monitoring report on the sustainably farmed food policy.	Center for Information and Communication	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

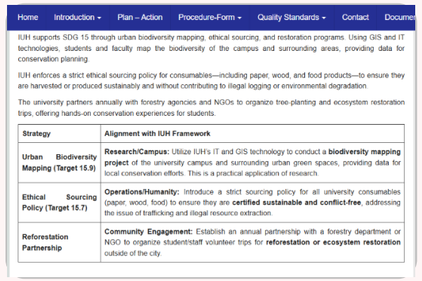
SDG 15 LIFE ON LAND

15.2.2

Sustainably farmed food on campus

Policy ensuring food on campus comes from sustainable agricultural production.

ACTIVITY EVIDENCE



Home Introduction Plan – Action Procedure-Form Quality Standards Contact Docume

IUH supports SDG 15 through urban biodiversity mapping, ethical sourcing, and restoration programs. Using GIS and IT technologies, students and faculty map the biodiversity of the campus and surrounding areas, providing data for conservation planning.

IUH enforces a strict ethical sourcing policy for consumables—including paper, wood, and food products—to ensure they are harvested or produced sustainably and without contributing to illegal logging or environmental degradation.

The university partners annually with forestry agencies and NGOs to organize tree-planting and ecosystem restoration trips, offering hands-on conservation experiences for students.

Strategy	Alignment with IUH Framework
Urban Biodiversity Mapping (Target 15.9)	**Research/Campus:** Utilize IUH's IT and GIS technology to conduct a **biodiversity mapping project** of the university campus and surrounding urban green spaces, providing data for local conservation efforts. This is a practical application of research.
Ethical Sourcing Policy (Target 15.7)	**Operations/Humanity:** Introduce a strict sourcing policy for all university consumables (paper, wood, food) to ensure they are **certified sustainable and conflict-free**, addressing the issue of trafficking and illegal resource extraction.
Reforestation Partnership	**Community Engagement:** Establish an annual partnership with a forestry department or NGO to organize student/staff volunteer trips for **reforestation or ecosystem restoration** outside of the city.

1

Article title

Ethical Sourcing Policy for consumables, including food

Article link

tqa.iuh.edu.vn – Summary of SGD 15 in 2025 (07/11/2025)

Description

On 07/11/2025, the Office of Testing and Quality Assurance, Industrial University of Ho Chi Minh City, published the summary article “Summary of SGD 15 in 2025”, setting out the University's directions for SDG 15 – Life on Land.

According to the article, IUH applies an ethical sourcing policy to consumables, including paper, wood and food, to ensure they are sustainably harvested or produced and do not contribute to illegal logging or environmental degradation. The policy sits within the University's operations pillar, is linked to target 15.7 and favours certified sustainable supplies.

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.3 Maintain and extend current ecosystems' biodiversity

Maintaining and extending existing ecosystems and their plant and animal biodiversity.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 1: Pioneering in education and research	Increase quantity and quality of domestic and international publications (Scopus/WoS articles)	Approve and execute university/ministry-level research projects on investigating species composition, natural forest vegetation structure, degraded habitat restoration, and conserving rare native plant germplasm in Southern Vietnam.	Decisions approving research projects; 2025 summary report on terrestrial biodiversity conservation projects; Reputable international scientific papers (Scopus/WoS).	Office of Science Management and International Cooperation, Institute for Environmental Science, Engineering and Management	Q1 – Q4/2025
Thrust 3: Modern and convenient infrastructure	Build a green campus (Increase green index and tree canopy coverage; Number of trees planted and tagged)	Plan and expand campus green space ecosystems: build a native plant nursery, an ecological medicinal plant experimental garden, and plant supplementary native forest tree species (e.g., *Hopea odorata*, *Dipterocarpus alatus*, *Pahudia coccinea*) to create habitats for birds and insects.	Technical acceptance records for campus green space expansion; Location maps and native tree lists tagged with QR-code plant identification tags.	Office of Asset Management, Institute for Environmental Science, Engineering and Management	Q1 – Q3/2025
Thrust 2: Enhancing community service connections	Increase community linkages outside IUH (Number of linkages; Number of participating staff) Technology transfer	Partner with Cat Tien National Park / Binh Chau - Phuoc Buu Nature Reserve to implement direct conservation interventions: forest regeneration fencing, invasive brush removal, and monitoring recovery of endangered flora and fauna.	Memorandum of Understanding (MOU)/Field contract with Nature Reserve Management Board; Acceptance report on directly restored forest habitat area in 2025.	Institute for Environmental Science, Engineering and Management, Office of Science Management and International Cooperation	Q2 – Q4/2025
Thrust 1: Pioneering in education and research	Execute support policy in research cooperation (Funding support for field research)	Conduct ecological field surveys: inventory and classify plant communities, vertebrate animals, indicator insects; build a digital database on ecological succession and species richness.	2025 Flora & Fauna Ecological Field Survey Dataset; Species list table with biodiversity index (Shannon-Wiener).	Institute for Environmental Science, Engineering and Management, Biological Expert Group	Q2 – Q3/2025
Thrust 1: Pioneering in education and research	Publish research Diversify public communication	Synthesize the 2025 Direct Work Report on maintaining and extending terrestrial ecosystems: detailed justification of restored habitat area, number of multiplied native species, and research outputs for THE Portal evidence.	Summary report on IUH's direct actions in conserving and extending terrestrial ecosystem biodiversity (Direct Work Report 2025).	Institute for Environmental Science, Engineering and Management, Office of Science Management and International Cooperation	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.3

Maintain and extend current ecosystems' biodiversity

Maintaining and extending existing ecosystems and their plant and animal biodiversity.

ACTIVITY EVIDENCE



Journal of Tropical Forest Science 37(4): 463–474 (2025) Bui KNT et al.
https://doi.org/10.26525/jtfs2025.37.4.463
ISSN: 0128-1283, eISSN: 2521-9847

BIOMASS, CARBON STOCK, CARBON UPTAKE, AND OXYGEN PRODUCTION OF *SONNERATIA ALBA*: ESTIMATING VALUES FOR MANGROVE FOREST ENVIRONMENTAL SERVICE IN CAN GIO, VIETNAM

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Submitted March 2025; accepted July 2025

Sonneratia alba J. E. Smith is a key mangrove species contributing to forest structure along tropical Southeast Asian coasts. This study aims to quantify the ecosystem service value of natural *S. alba* populations through biomass, carbon stock, carbon uptake, and oxygen production, using a case study in the Can Gio Mangrove Biosphere Reserve, Vietnam. To our knowledge, this is the first study to provide a species-specific economic valuation of both carbon uptake and oxygen production for *S. alba* in this region. Fifty sample plots

Article title 1

International article: Biomass, carbon stock, carbon uptake, and oxygen production of Sonneratia alba – Estimating values for mangrove forest environmental service in Can Gio, Vietnam

Article link

https://doi.org/10.26525/jtfs2025.37.4.463

Description

The study was carried out by IESEM – IUH (corresponding author Dr. Nguyen Thi Ngoc) in direct collaboration with the Can Gio Protection Forest Management Board and Nong Lam University – HCMC, and published in the Journal of Tropical Forest Science 37(4): 463–474 (2025).

The team set up 50 sample plots (500 m² each) in 8 natural forest sub-compartments of the Can Gio Mangrove Biosphere Reserve, surveyed density and diameter, and built biomass equations for Sonneratia alba – a key species in the mangrove structure. Sampling was approved by the Management Board to minimise impacts on forest structure. Results valued carbon uptake (USD 696.3/ha) and oxygen production (USD 6,079.2/ha), supporting payments for forest environmental services and ecosystem conservation policy.



Article title 2

Planting and tending native tropical almond trees to restore vegetation at Nghinh Phong Cape (09/06/2025)

Article link

IESEM post (09/06/2025): facebook.com/vienmoitruong
Activity video: https://youtu.be/OgtZMCDqejo

Description

On 09/06/2025, IESEM – IUH directly planted and tended trees at Nghinh Phong Cape (Vung Tau City), a natural coastal headland with large areas of bare hillside.

The species planted was the tropical almond (Terminalia catappa), native to Vietnam's coast and tolerant of wind and salinity. Tending existing trees and infill planting aim to green bare land, maintain and extend natural vegetation and diversify the local terrestrial ecosystem; the Institute returned to tend the trees in 04/2026.



Article title 3

Sample-plot survey and monitoring of Can Gio mangrove status (project 22/2MT01)

Article link

Field survey and sample-plot photo records of project 22/2MT01; Decision 3225/QĐ-ĐHCN of 07/10/2025 establishing the evaluation council

Description

Under university-level project 22/2MT01 (PI Dr. Nguyen Thi Ngoc, IESEM – IUH; evaluated under Decision 3225/QĐ-ĐHCN of 07/10/2025), the research team and the Can Gio Protection Forest Management Board conducted field surveys in the Can Gio Mangrove Biosphere Reserve.

The team set up sample plots, measured trees and recorded the status of newly planted and mature mangrove forest. The data support monitoring of plantation growth and a proposed tourism–afforestation model, helping maintain and extend the mangrove ecosystem.

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.4 Educational programmes on ecosystems

Community education programmes on ecosystems, focusing on wild flora and fauna.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 2: Enhancing community service connections	Expand community connection activities towards active citizenship development (Raise social and environmental awareness; Satisfaction rate)	Develop and organize a series of free community workshops, training sessions, and courses: "Understanding Biodiversity - Joining Hands to Protect Wildlife" for high school students, youth, and local residents.	Implementation plan for 2025 community ecosystem education series; Lecture packages, training slides, and wildlife identification materials; Participant list.	Institute for Environmental Science, Engineering and Management, Youth Union – Student Association, Office of Student Affairs	Q1 – Q4/2025
Thrust 2: Enhancing community service connections	Encourage students to participate in community movements (Number of campaigns; Satisfaction rate)	Organize eco-field trips and "Citizen Science" activities (via the iNaturalist platform) guiding high school students and the community to observe and record wild flora and fauna at Saigon Zoo & Botanical Gardens and Can Gio.	Records of community field experience trips; Biodiversity observation data contributed by participants on the iNaturalist portal; Activity photo reportage.	Institute for Environmental Science, Engineering and Management, Youth Union – Student Association	Q2 & Q3/2025
Thrust 2: Enhancing community service connections	Diversify media tools and content (Number of news items; Number of interactions)	Publish digital handbooks, infographics, and short videos titled "End Wildlife Hunting and Consumption - Protect Ecological Balance" widely disseminated on the university portal, social media, and partner schools.	URLs of the open ecosystem education handbook portal; Digital communication product packages freely provided to the community.	Center for Information and Communication, Institute for Environmental Science, Engineering and Management	Q2 – Q4/2025
Thrust 1: Pioneering in education and research **Thrust 2:** Community service	Technology transfer Free advisory and professional services	Dispatch IUH ecology experts to teach and deliver thematic lectures at environmental forums of the Ho Chi Minh City Youth Union and local high schools regarding endangered wildlife conservation.	Invitation letters/Certificates of IUH experts delivering species conservation lectures; Presentation materials and photos of community thematic sessions.	Institute for Environmental Science, Engineering and Management, Office of Science Management and International Cooperation	Q2 – Q4/2025
Thrust 2: Enhancing community service connections	Enhance community service projects (Number of beneficiaries; Satisfaction rate)	Prepare the 2025 Summary Report on community ecosystem education programmes: detailed participant statistics, survey measuring awareness shifts in protecting wild flora and fauna (100% free confirmation).	2025 summary report on IUH's community ecosystem education programmes for THE Portal verification.	Institute for Environmental Science, Engineering and Management, Office of Student Affairs	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.4

Educational programmes on ecosystems

Community education programmes on ecosystems, focusing on wild flora and fauna.

ACTIVITY EVIDENCE

1



Article title

Seminar “Nature Conservation and Sustainable Development”

Article link

https://iesem.edu.vn/chuyen-de-1-bao-ton-thien-nhien-va-phat-trien-ben-vung-d486.html

Description

On 14/08/2026, under the project “Knowledge Connection – Building an Asian Youth Community for Sustainable Development between People and the Environment”, IESEM – IUH held the seminar “Nature Conservation and Sustainable Development”, presented by MSc. Phan Kim Phuong (HCMC University of Transport).

The seminar introduced biodiversity, ecosystems, ecosystem services and the protection of wild animal and plant species, and analysed mangrove restoration at Mui Ca Mau National Park, wetland restoration in the Mekong Delta and seagrass conservation at Cu Lao Cham, linked to the SDGs.

2



Article title

“Little Green Soldiers”: learning about trees for children

Article link

https://iesem.edu.vn/chien-si-nhi-bao-ve-moi-truong-d371.html

Description

For International Children's Day 2023, IESEM – IUH organised the “Little Green Soldiers” programme at Gia Dinh Park for 14 children aged 5 to 9, themed “Learning about Trees – Cleaning up Plastic Waste”.

Through outdoor experiential activities, the children learned about trees and their role in the living environment and practised picking up plastic litter in the park. Each child received a “Little Green Soldier” certificate, nurturing nature-protection awareness from an early age.

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.5

Sustainable management of land for agriculture (educational outreach)

Community education on sustainable management of agricultural land.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 2: Enhancing community service connections	Enhance community service projects Increase community linkages outside IUH (Number of linkages; Number of participating staff)	Coordinate with Agricultural Extension Centers and Farmers' Associations of Cu Chi, Hoc Mon, Binh Chanh districts and neighboring provinces to organize technical training on sustainable agricultural land management: degraded soil reclamation, crop rotation, microbial composting, and IPM.	2025 sustainable agricultural land management training plan and records; List of attending farmers and cooperatives; Course completion certificates.	Institute for Environmental Science, Engineering and Management, Office of Science Management and International Cooperation	Q1 – Q3/2025
Thrust 1: Pioneering in education and research	Promote technology transfer Publish applied research	Build demonstration experimental plots (Demo Plots): "Circular Farming Protecting Soil Health - Anti-Degradation and Erosion of Agricultural Land": transferring technical procedures for soil nutrient enrichment using agricultural residues.	Result report on building sustainable agriculture demo plots; Technology transfer minute for soil reclamation using crop residues to local farming households.	Institute for Environmental Science, Engineering and Management	Q2 – Q4/2025
Thrust 1: Pioneering in education and research	Innovate practical-oriented training methods Technology transfer	Compile and release the Technical Handbook "Ecological Agriculture: Long-term Soil and Water Resource Protection Solutions" provided free of charge to agricultural cooperatives and farms.	Technical Handbook publication (printed and digital PDF); Handover minute of materials to local agricultural extension stations.	Institute for Environmental Science, Engineering and Management, Center for Information and Communication	Q2 – Q3/2025
Thrust 2: Enhancing community service connections	Diversify media channels (Diversify news content; Number of interactions)	Produce online instructional article and video series on soil pH measurement techniques and agroforestry practices to reduce land exhaustion on university website and social media channels.	URLs of the sustainable agriculture technical portal; Community soil reclamation instructional videos.	Center for Information and Communication, Institute for Environmental Science, Engineering and Management	Q3/2025
Thrust 2: Enhancing community service connections	Enhance community service projects (Community satisfaction rate)	Synthesize data on trained farmers/cooperatives in 2025; conduct surveys evaluating application rate of sustainable land management practices and compile a summary report for THE (committed free of charge).	2025 summary report on IUH's community training programmes for sustainable agricultural land management.	Institute for Environmental Science, Engineering and Management, Office of Administrative Affairs	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.5

Sustainable management of land for agriculture (educational outreach)

Community education on sustainable management of agricultural land.

ACTIVITY EVIDENCE



Article title 1

IESEM trains care homes in Da Lat to compost organic waste (02/2025)

Article link

iuh.edu.vn – Study tour combined with community service by IUH staff

Description

From 08–11/02/2025, during IUH's study tour combined with community service in Da Lat (Lam Dong), IESEM lecturers led by Assoc. Prof. Dr. Le Hung Anh, Director of IESEM, delivered hands-on training at Cam Ly Shelter and Luc Hoa Orphanage.

The lecturers showed the nuns and sisters how to compost organic waste for use in cultivation instead of chemical fertiliser, reducing waste to the environment while improving farmland soil. This transferred sustainable agricultural land management knowledge to the local community.

Article title 2

Biochar trial to improve paddy soil in Thai My commune, Cu Chi (2025)

Article link

Vietnam Soil Science Journal, No. 79/2025, pp. 22–26
NAFOSTED project 04/2020–08/2025 (PI Assoc. Prof. Dr. Nguyen Thanh Binh)

Description

IESEM – IUH implemented the NAFOSTED project “Effects and mechanisms of biochar in limiting methane emissions and increasing rice yield on flooded soils” (04/2020–08/2025), led by Assoc. Prof. Dr. Nguyen Thanh Binh, with Dr. Nguyen Xuan Tong as a key member.

In 2025, the team published results on the effect of biochar on sandy paddy soil quality in Thai My commune, Cu Chi district, HCMC. Biochar made from agricultural residues was used to improve paddy soil, cut methane emissions and limit trace-metal transfer from soil to rice, towards sustainable local farmland management.

Article title 3

Book “Biochar: A Green Solution for a Sustainable Environment” (Science and Technics Publishing House, 2025)

Article link

ISBN 978-604-67-3283-9 – Science and Technics Publishing House, 2025

Description

In 2025, the book “Biochar: A Green Solution for a Sustainable Environment”, co-authored by Assoc. Prof. Dr. Nguyen Thanh Binh of IESEM – IUH, was published by Science and Technics Publishing House (ISBN 978-604-67-3283-9).

The book presents biochar from agricultural residues as a green solution, linked to IESEM research on improving saline, acid sulphate and paddy soils, reducing methane emissions and limiting heavy metals in soil. It disseminates sustainable farmland management knowledge to technical staff, farmers and the community.

Industrial University of Ho Chi Minh City

GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.6

Sustainable management of land for tourism (educational outreach)

Community education on sustainable land management for tourism.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 2: Enhancing community service connections	Enhance community service projects & Increase community linkages outside IUH (Number of linkages; Number of participating staff)	Organize free thematic workshops and training courses: "Land Management and Landscape Conservation in Sustainable Eco-tourism Development" for homestay owners, lodging establishments, tourism communities, and local culture-tourism officials.	2025 plan and records for sustainable tourism land management training; Participant list; Course completion certificates.	Institute for Environmental Science, Engineering and Management, Office of Science Management and International Cooperation	Q1 – Q3/2025
Thrust 1: Pioneering in education and research	Innovate practical-oriented training methods Promote technology transfer	Compile the Guidebook "Environmental Carrying Capacity Assessment and Land Use Planning for Eco-tourism Sites" helping tourism destinations control visitor load, prevent overcrowding and landslides.	Guidebook publication on land management and tourism carrying capacity (print and PDF); Handover minute of materials to local eco-tourism sites.	Institute for Environmental Science, Engineering and Management	Q2 – Q4/2025
Thrust 1: Pioneering in education and research **Thrust 2:** Community service	Technology transfer Develop free consulting services	Provide free technical consultancy for local coastal/mountainous authorities and residents on designing eco-friendly low-impact tourism infrastructure, minimizing hill bulldozing and maintaining natural vegetation cover.	Expert consultancy report on low-impact eco-tourism infrastructure planning; Working minute with local tourism management boards.	Faculty of Commerce and Tourism, Institute for Environmental Science, Engineering and Management, Office of Science Management and International Cooperation	Q2 – Q3/2025
Thrust 2: Enhancing community service connections	Diversify media channels (Diversify news content; Number of interactions)	Develop media web-page and awareness videos: "Responsible Tourism - Preserving Land Resources and Natural Habitats" released on IUH portal and travel partner channels.	URLs of the sustainable eco-tourism media portal; Digital media product package for the community.	Center for Information and Communication, Faculty of Commerce and Tourism	Q3/2025
Thrust 2: Enhancing community service connections	Enhance community service projects (Community satisfaction rate)	Compile the 2025 Summary Report on community training programmes in sustainable land management for tourism: record non-IUH attendees, evaluate practice transformation at destinations (free programme confirmation).	2025 summary report on IUH's community education programmes for sustainable tourism land management for THE Portal verification.	Faculty of Commerce and Tourism, Office of Administrative Affairs	Q4/2025

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GROUP 15.2 – Supporting land ecosystems through education

SDG 15 LIFE ON LAND

15.2.6

Sustainable management of land for tourism (educational outreach)

Community education on sustainable land management for tourism.

ACTIVITY EVIDENCE



Article title 1

University research project: Analysing tourists' potential participation in conservation at the Can Gio Mangrove Biosphere Reserve

Article link

Decision No. 3225/QĐ-ĐHCN of 07/10/2025 establishing the evaluation council for project 22/2MT01

Description

University-level research project 22/2MT01, led by Dr. Nguyen Thi Ngoc, IESEM, Industrial University of Ho Chi Minh City, analyses tourists' potential participation in conservation activities at the Can Gio Mangrove Biosphere Reserve.

The project develops a tourism model tied to conservation and afforestation, combining tourism with the protection and restoration of the mangrove ecosystem. On 07/10/2025, the Rector issued Decision No. 3225/QĐ-ĐHCN establishing a 5-member council of internal and external experts to evaluate the project.



Article title 2

Field survey and sample-plot inventory in the Can Gio mangrove forest

Article link

Field survey and sample-plot photo records of project 22/2MT01

Description

Under project 22/2MT01, the IESEM research team conducted field surveys in the Can Gio Mangrove Biosphere Reserve with the participation of the Can Gio Protection Forest Management Board.

The team set up sample plots, measured trees and recorded the status of both newly planted and mature mangrove forest. The field data directly support the project's work on tourism linked to afforestation and forest conservation, so that tourism goes hand in hand with protecting the Can Gio mangrove ecosystem.



Article title 3

International article: Afforestation tourism – how its value connects outdoor environmental education to an environmental course

Article link

https://doi.org/10.1007/s42322-025-00227-2

Description

Published on 11/11/2025 in the Journal of Outdoor and Environmental Education (Springer Nature), the article is an output of project 22/2MT01, authored by 5 IESEM – IUH scientists and 1 expert from the Can Gio Protection Forest Management Board.

The study surveyed 117 students on a one-day field trip to the Can Gio mangroves, treating afforestation tourism as nature-based tourism linked to conservation. Awareness of human impacts on nature and field experience increased willingness to pay for this type of tourism, confirming eco-tourism as a platform for environmental education.

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.1 Sustainable use, conservation and restoration of land (policy)

Policy on conserving, restoring and sustainably using terrestrial ecosystems linked to IUH.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 3: Modern and convenient infrastructure	Build a green campus Infrastructure management and maintenance (Enhance maintenance efficiency)	Issue IUH's Policy on Conservation, Restoration and Sustainable Use of Terrestrial Ecosystems: establishing protection scope for all land area, natural green spaces, parks, and university training campuses.	University-level decision issuing the policy on conservation and sustainable land/terrestrial ecosystem use (clearly specifying Policy Created and Policy Reviewed in 2022–2026 per THE standards).	Institute for Environmental Science, Engineering and Management	Q1 – Q2/2025
Thrust 3: Modern and convenient infrastructure	Build a green campus (Increase green index and tree canopy coverage; Number of trees planted and tagged)	Implement minimum green coverage ratio (achieving over 30% campus area), restore degraded land plots with native vegetation cover, control erosion, and strictly prohibit converting green land to other uses.	Technical acceptance records for restored land and habitat area; Green space map and list of conserved plant species on IUH campus.	Office of Investment Planning, Office of Asset Management	Q1 – Q3/2025
Thrust 1: Pioneering in education and research	Increase research publication output Technology transfer	Apply GIS technology and remote sensing imagery to periodically monitor changes in vegetation cover and soil quality across all university campuses; generate annual ecological status maps.	2025 GIS map of IUH campus vegetation cover changes; Soil quality and land ecological index analysis report.	Institute for Environmental Science, Engineering and Management	Q2 – Q4/2025
Thrust 2: Enhancing community service connections	Expand community connection activities towards active citizenship development	Provide internal training and communication for staff, students, and landscape maintenance workers on soil protection techniques, prohibition of chemical herbicides, and maximum reduction of land surface concretization.	Technical SOP for landscape maintenance without toxic chemicals; Soil ecosystem protection training materials for campus.	Office of Asset Management, Institute for Environmental Science, Engineering and Management, University Trade Union	Q2/2025
Thrust 2: Enhancing community service connections Thrust 3: Modern infrastructure	Evaluate green campus Diversify public communication	Publicly disclose the full policy text on official website; compile the 2025 Annual Report evaluating implementation results of IUH's land conservation, restoration, and sustainable use policy for THE verification.	URLs of the public policy document on website; 2025 monitoring report on land ecosystem conservation policy execution.	Center for Information and Communication, Office of Investment Planning	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.1

Sustainable use, conservation and restoration of land (policy)

Policy on conserving, restoring and sustainably using terrestrial ecosystems linked to IUH.

ACTIVITY EVIDENCE



BỘ CÔNG THƯƠNG
TRƯỜNG ĐẠI HỌC CÔNG NGHIỆP THÀNH PHỐ HỒ CHÍ MINH
Số: 3081/QĐ-ĐHCN

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc
Thành phố Hồ Chí Minh, ngày 15 tháng 9 năm 2026

QUYẾT ĐỊNH
Về việc thành lập Hội đồng đánh giá luận án tiến sĩ cấp trường

HIỆU TRƯỞNG TRƯỜNG ĐẠI HỌC CÔNG NGHIỆP THÀNH PHỐ HỒ CHÍ MINH

Căn cứ Quyết định số 214/2004/QĐ-TTg ngày 24 tháng 12 năm 2004 của Thủ tướng Chính phủ về việc thành lập Trường Đại học Công nghiệp Thành phố Hồ Chí Minh;

Căn cứ Thông tư số 18/2021/TT-BGDĐT ngày 28 tháng 6 năm 2021 của Bộ Trưởng Bộ Giáo dục và Đào tạo về việc ban hành Quy chế đào tạo trình độ tiến sĩ;

Căn cứ Quyết định số 2859/QĐ-ĐHCN ngày 12 tháng 08 năm 2026 của Hiệu trưởng trường Trường Đại học Công nghiệp Thành phố Hồ Chí Minh về việc ban hành Quy chế tổ chức và hoạt động của Trường Đại học Công nghiệp Thành phố Hồ Chí Minh;

Căn cứ Quyết định số 1470/QĐ-ĐHCN ngày 10 tháng 11 năm 2021 của Hiệu trưởng Trường Đại học Công nghiệp Thành phố Hồ Chí Minh về việc ban hành Quy định tổ chức và quản lí đào tạo trình độ tiến sĩ;

Theo đề nghị của Viện trưởng Viện Đào tạo quốc tế và Sau đại học.

QUYẾT ĐỊNH

Điều 1. Thành lập Hội đồng đánh giá luận án tiến sĩ cấp trường cho nghiên cứu sinh: Huỳnh Công Lực

- Ngành: Quản lý tài nguyên và môi trường (9850101) - Khoá 6 (2022-2025)
- Tên đề tài: "Nghiên cứu đánh giá hạn hán lưu vực sông Srêpốk bằng phương pháp viễn thám và học máy"
- Người hướng dẫn độc lập: PGS.TS. Lương Văn Việt

Điều 2. Hội đồng có nhiệm vụ đánh giá luận án tiến sĩ của nghiên cứu sinh theo đúng quy chế hiện hành. Hội đồng tự giải thể sau khi hoàn thành nhiệm vụ.

Article title

1

Doctoral dissertation: Assessing drought in the Srepok River basin using remote sensing and machine learning

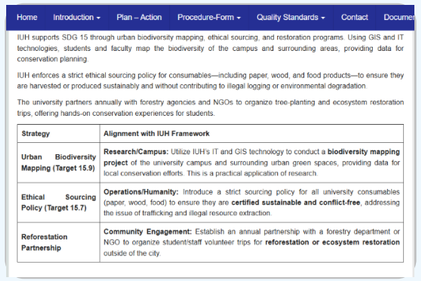
Article link

Decision No. 3081/QĐ-ĐHCN of 15/09/2026 establishing the university-level doctoral dissertation evaluation council

Description

On 15/09/2026, the Rector of Industrial University of Ho Chi Minh City issued Decision No. 3081/QĐ-ĐHCN establishing a university-level council to evaluate the doctoral dissertation of PhD candidate Huynh Cong Luc, Natural Resources and Environmental Management (code 9850101), cohort 6 (2022–2025), supervised by Assoc. Prof. Dr. Luong Van Viet.

The dissertation “Assessing drought in the Srepok River basin using remote sensing and machine learning” applies satellite imagery and machine-learning models to assess drought in the basin, providing a scientific basis for monitoring and preventing land degradation and managing land resources sustainably under climate change. The council has 7 members from IUH and external institutes and universities.



Home | Introduction | Plan – Action | Procedure-Form | Quality Standards | Contact | Documer

IUH supports SDG 15 through urban biodiversity mapping, ethical sourcing, and restoration programs. Using GIS and IT technologies, students and faculty map the biodiversity of the campus and surrounding areas, providing data for conservation planning.

IUH enforces a strict ethical sourcing policy for consumables—including paper, wood, and food products—to ensure they are harvested or produced sustainably and without contributing to illegal logging or environmental degradation.

The university partners annually with forestry agencies and NGOs to organize tree-planting and ecosystem restoration trips, offering hands-on conservation experiences for students.

Strategy	Alignment with IUH Framework
Urban Biodiversity Mapping (Target 15.9)	**Research/Campus:** Utilize IUH's IT and GIS technology to conduct a **biodiversity mapping project** of the university campus and surrounding urban green spaces, providing data for local conservation efforts. This is a practical application of research.
Ethical Sourcing Policy (Target 15.7)	**Operations/Humanity:** Introduce a strict sourcing policy for all university consumables (paper, wood, food) to ensure they are **certified sustainable and conflict-free**, addressing the issue of trafficking and illegal resource extraction.
Reforestation Partnership	**Community Engagement:** Establish an annual partnership with a forestry department or NGO to organize student/staff volunteer trips for **reforestation or ecosystem restoration** outside of the city.

Article title

2

IUH's 2025 directions on biodiversity mapping and ecosystem restoration

Article link

tqa.iuh.edu.vn – Summary of SGD 15 in 2025 (07/11/2025)

Description

IUH has announced its direction to use GIS and IT to map biodiversity on campus and in nearby green spaces, using the data for conservation planning.

IUH also aims to maintain afforestation and ecosystem restoration partnerships with forestry agencies and social organisations.

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.2 Monitoring IUCN and other conservation species (policies)

Policy to identify, monitor and protect species on the IUCN Red List and national conservation lists.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 3: Modern and convenient infrastructure	Build a green campus Increase quality of publications	Formulate and issue IUH's Policy on Identification, Monitoring and Protection of IUCN Red List and National Conservation Species present on campus and areas affected by university operations.	University-level decision issuing the protection policy for IUCN Red List and National Conservation species (specifying Policy Created and Policy Reviewed in 2022–2026 per THE standards).	Institute for Environmental Science, Engineering and Management, Office of Science Management and International Cooperation	Q1 – Q2/2025
Thrust 1: Pioneering in education and research	Publish research Execute support policy in research cooperation	Conduct a comprehensive baseline ecological survey: compile a detailed inventory of flora and fauna present on campus and buffer zones, cross-checking conservation status with IUCN and Vietnam Red Data Books.	2025 Biodiversity Baseline Survey Report; Conservation status cross-check table (IUCN/National) for identified plants, birds, reptiles, and insects.	Institute for Environmental Science, Engineering and Management	Q1 – Q3/2025
Thrust 3: Modern and convenient infrastructure	Advanced IT infrastructure (Deploy Big Data and IoT)	Build a digital database system and GIS habitat distribution map for protected species; install automated camera traps to monitor activities of birds and wild fauna residing on campus.	Digital database system tracking IUH rare species; GIS map of ancient tree locations, sensitive habitats, and camera trap images.	Center for System Management, Institute for Environmental Science, Engineering and Management	Q2 – Q4/2025
Thrust 3: Modern and convenient infrastructure	Safe environment Upgrade and maintain infrastructure	Establish strictly protected buffer zones around precious ancient trees with warning signage; issue emergency response SOPs when endangered wildlife individuals stray into the university.	Standard Operating Procedure (SOP) for receiving, rescuing, and handing over wildlife to Forest Protection Department; Photos of warning signs protecting rare campus trees.	Office of Asset Management, Institute for Environmental Science, Engineering and Management	Q2 – Q4/2025
Thrust 1: Pioneering in research	Publish research Diversify public communication	Publicly disclose the policy on university portal; prepare the 2025 Periodic Monitoring Report on population status and health of species under conservation lists at IUH campuses.	URLs of public IUCN species protection policy; 2025 monitoring report on rare species of IUH for THE Portal verification.	Center for Information and Communication, Institute for Environmental Science, Engineering and Management	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.2 Monitoring IUCN and other conservation species (policies)

Policy to identify, monitor and protect species on the IUCN Red List and national conservation lists.

ACTIVITY EVIDENCE

1


Home / Archives / Vol. 80 No. 2 (2026): Journal Of Science And Technology - Volume 80 (02-2026)
/ Chemical, Bio, Food, Environmental Technology

DIVERSITY OF RIPARIAN PLANT SPECIES ALONG RACH TRA UNDER WASTEWATER POLLUTION FROM ANTHROPOGENIC ACTIVITIES IN HO CHI MINH CITY

Tạp chí KHOA HỌC & CÔNG NGHỆ

Hồ Thị Tuyết
Nguyễn Hiếu Cường
Lê Hồng Thia

Abstract

Riparian vegetation plays a crucial role in maintaining ecosystem stability and biodiversity, yet anthropogenic pressures increasingly threaten it. This study assesses the diversity of riparian plant species along Rạch Trà, Hồ Chí Minh City, under the influence of wastewater inputs from various human activities.

Article title

Plant diversity survey along Rach Tra canal: 2 Vulnerable (VU) species recorded for conservation

Article link

Journal of Science and Technology – IUH, Vol. 80(2), 2026 – DOI: 10.46242/jstiuh.v80i2.5896

Description

Authors Ho Thi Tuyet, Nguyen Hieu Cuong and Le Hong Thia (IUH) surveyed riparian vegetation along Rach Tra canal, HCMC – an area affected by industrial, agricultural and domestic wastewater – using 1 m × 1 m quadrats, transects and species identification, recording 162 species in 137 genera and 58 families.

The study identified 2 Vulnerable (VU) species requiring conservation: Elaeocarpus hygrophilus Kurz and wild rice Oryza rufipogon Griff. The results provide baseline data and a method to identify and monitor species of conservation concern, informing conservation planning and restoration of canal-side ecosystems.

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.3

Local biodiversity included in planning and development

Integrating local biodiversity into the planning and development of facilities.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 3: Modern and convenient infrastructure	Upgrade existing infrastructure Build a green campus	Issue internal Biodiversity Inclusive Planning Protocol: mandating Ecological Impact Assessment (EcIA) prior to approving new construction or major renovation projects.	Decision issuing internal protocol on integrating biodiversity into facility planning and infrastructure development of IUH effective in 2025.	Office of Investment Planning, Institute for Environmental Science, Engineering and Management	Q1 – Q2/2025
Thrust 3: Modern and convenient infrastructure	Build a green campus Upgrade existing infrastructure	Embed tree and habitat conservation standards into 2025 engineering design documents: design to retain 100% of existing ancient trees, arrange green roofs, vertical gardens, and ecological corridors.	Engineering design drawings with technical notes on tree conservation and biodiversity-enhancing landscape design.	Office of Investment Planning, Office of Asset Management	Q2 – Q3/2025
Thrust 3: Modern and convenient infrastructure	Safe working environment Enhance maintenance efficiency	Issue Construction Environmental Management Plan (CEMP): requiring root protection fencing, fine dust, noise, and night light controls to minimize natural habitat disturbance during construction.	Inspection and monitoring minutes on ecological protection compliance during facility construction in 2025.	Office of Investment Planning, Institute for Environmental Science, Engineering and Management, Office of Asset Management	Q2 – Q4/2025
Thrust 5: Enhancing sustainable financial autonomy	Reasonable investment in education and research (Investment in infrastructure, equipment, and maintenance)	Apply "Biodiversity Offset" principles: requiring mandatory replacement planting of at least 3 times the number of native trees if any tree must be relocated due to force majeure technical requirements.	Offset scheme and native replacement planting plan with approved budget estimates for biodiversity offsetting.	Office of Investment Planning, Office of Finance and Accounting	Q3/2025

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.3

Local biodiversity included in planning and development

Integrating local biodiversity into the planning and development of facilities.

ACTIVITY EVIDENCE



Journal of Tropical Forest Science 37(4): 463–474 (2025) Bui KNT et al.
https://doi.org/10.26525/jtfs2025.37.4.463
ISSN: 0128-1283, eISSN: 2521-9847

BIOMASS, CARBON STOCK, CARBON UPTAKE, AND OXYGEN PRODUCTION OF *SONNERATIA ALBA*: ESTIMATING VALUES FOR MANGROVE FOREST ENVIRONMENTAL SERVICE IN CAN GIO, VIETNAM

Bui KNT[1], Vien NN[2], Nguyen NT[3]* & Huynh HD[1]

[1]Can Gio Protection Forest Management Board, Ho Chi Minh City, Vietnam
[2]Faculty of Forestry, Nong Lam University, Ho Chi Minh City, Vietnam
[3]Institute of Environmental Science, Engineering and Management, Industrial University of Ho Chi Minh City, Ho Chi Minh City, Vietnam

*nguyenthingoc@iuh.edu.vn

Submitted March 2025; accepted July 2025

Sonneratia alba J. E. Smith is a key mangrove species contributing to forest structure along tropical Southeast Asian coasts. This study aims to quantify the ecosystem service value of natural *S. alba* populations through biomass, carbon stock, carbon uptake, and oxygen production, using a case study in the Can Gio Mangrove Biosphere Reserve, Vietnam. To our knowledge, this is the first study to provide a species-specific economic valuation of both carbon uptake and oxygen production for *S. alba* in this region. Fifty sample plots

Article title 1

International article: Biomass, carbon stock, carbon uptake, and oxygen production of Sonneratia alba – Estimating values for mangrove forest environmental service in Can Gio, Vietnam

Article link

https://doi.org/10.26525/jtfs2025.37.4.463

Description

Published in the Journal of Tropical Forest Science 37(4): 463–474 (2025), with corresponding author Dr. Nguyen Thi Ngoc, IESEM – IUH, in collaboration with the Can Gio Protection Forest Management Board and Nong Lam University – HCMC.

The team set up 50 sample plots in 8 forest sub-compartments of the Can Gio Mangrove Biosphere Reserve to quantify the biomass, carbon stock, CO_2 uptake and oxygen production of Sonneratia alba. Environmental service values were estimated at USD 696.3/ha for carbon uptake and USD 6,079.2/ha for oxygen production, a scientific basis for planning, payments for forest environmental services and forest conservation policy.



BỘ CÔNG THƯƠNG
TRƯỜNG ĐẠI HỌC CÔNG NGHIỆP THÀNH PHỐ HỒ CHÍ MINH

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

Số: 3081/QĐ-ĐHCN Thành phố Hồ Chí Minh, ngày 15 tháng 9 năm 2026

QUYẾT ĐỊNH
Về việc thành lập Hội đồng đánh giá luận án tiến sĩ cấp trường

HIỆU TRƯỞNG TRƯỜNG ĐẠI HỌC CÔNG NGHIỆP THÀNH PHỐ HỒ CHÍ MINH

Căn cứ Quyết định số 214/2004/QĐ-TTg ngày 24 tháng 12 năm 2004 của Thủ tướng Chính phủ về việc thành lập Trường Đại học Công nghiệp Thành phố Hồ Chí Minh;

Căn cứ Thông tư số 18/2021/TT-BGDĐT ngày 28 tháng 6 năm 2021 của Bộ Trưởng Bộ Giáo dục và Đào tạo về việc ban hành Quy chế đào tạo trình độ tiến sĩ;

Căn cứ Quyết định số 2650/QĐ-ĐHCN ngày 12 tháng 08 năm 2026 của Hiệu trưởng trường Đại học Công nghiệp Thành phố Hồ Chí Minh về việc ban hành Quy chế tổ chức và hoạt động của Trường Đại học Công nghiệp Thành phố Hồ Chí Minh;

Căn cứ Quyết định số 1470/QĐ-ĐHCN ngày 10 tháng 11 năm 2021 của Hiệu trưởng Trường Đại học Công nghiệp Thành phố Hồ Chí Minh về việc ban hành Quy định tổ chức và quản lý đào tạo trình độ tiến sĩ;

Theo đề nghị của Viện trưởng Viện Đào tạo quốc tế và Sau đại học.

QUYẾT ĐỊNH:

Điều 1. Thành lập Hội đồng đánh giá luận án tiến sĩ cấp trường cho nghiên cứu sinh: Huỳnh Công Lực
- Ngành: Quản lý tài nguyên và môi trường (9850101) - Khoá 6 (2022-2025)
- Tên đề tài: "Nghiên cứu đánh giá hạn hán lưu vực sông Srêpốk bằng phương pháp viễn thám và học máy"
- Người hướng dẫn độc lập: PGS.TS. Lương Văn Việt

Điều 2. Hội đồng có nhiệm vụ đánh giá luận án tiến sĩ của nghiên cứu sinh theo đúng quy chế hiện hành. Hội đồng tự giải thể sau khi hoàn thành nhiệm vụ.

Article title 2

Doctoral dissertation: Assessing drought in the Srepok River basin using remote sensing and machine learning

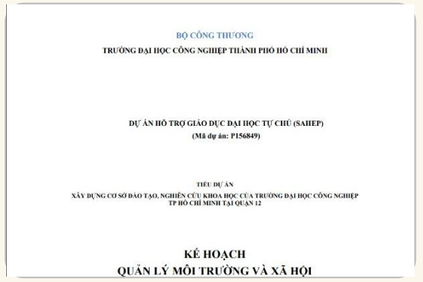
Article link

Decision No. 3081/QĐ-ĐHCN of 15/09/2026 establishing the university-level doctoral dissertation evaluation council

Description

On 15/09/2026, the Rector of Industrial University of Ho Chi Minh City issued Decision No. 3081/QĐ-ĐHCN establishing a university-level council to evaluate the doctoral dissertation of PhD candidate Huynh Cong Luc, Natural Resources and Environmental Management, cohort 6 (2022–2025), supervised by Assoc. Prof. Dr. Luong Van Viet.

The dissertation applies satellite imagery and machine-learning models to assess drought in the Srepok River basin. The spatial results can feed into local land-use and resource planning, helping prevent land degradation and protect terrestrial ecosystems in the basin against drought and climate change.



BỘ CÔNG THƯƠNG
TRƯỜNG ĐẠI HỌC CÔNG NGHIỆP THÀNH PHỐ HỒ CHÍ MINH

DỰ ÁN HỖ TRỢ GIÁO DỤC ĐẠI HỌC TỰ CHỦ (SAHEP)
(Mã dự án: P156849)

TIỂU DỰ ÁN
XÂY DỰNG CƠ SỞ ĐÀO TẠO, NGHIÊN CỨU KHOA HỌC CỦA TRƯỜNG ĐẠI HỌC CÔNG NGHIỆP TP HỒ CHÍ MINH TẠI QUẬN 12

KẾ HOẠCH
QUẢN LÝ MÔI TRƯỜNG VÀ XÃ HỘI

Article title 3

Environmental and Social Management Plan (ESMP) – IUH training and research campus project in District 12

Article link

https://iuh.edu.vn/Resource/Upload2/files/2017/01/kh_quan_ly_moi_truong_va_xa_hoi_bao_cao_cho_wb.pdf

Description

The ESMP (draft of 02/01/2017) was prepared by IUH for the sub-project building a training and research campus in Tan Chanh Hiep ward, District 12 (26.7 ha), under the World Bank-funded SAHEP programme.

From the planning stage, the plan assessed site conditions and ecological characteristics, planned a green park system (shade and ornamental trees), retained existing canals for drainage, and identified impacts and mitigation measures during construction and operation for wastewater, solid waste and hazardous waste under current environmental standards.

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.4 Alien species impact reduction (policies)

Policy to reduce the impact of alien species on campus.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 3: Modern and convenient infrastructure	Build a green campus Infrastructure management and maintenance	Formulate and issue IUH's Invasive Alien Species Control Policy: defining clear responsibilities for prevention, early detection, isolation, and eradication of invasive alien species on campus.	University-level decision issuing the alien species control policy (specifying Policy Created and Policy Reviewed in 2022–2026 per THE standards).	Institute for Environmental Science, Engineering and Management, Office of Asset Management	Q1 – Q2/2025
Thrust 1: Pioneering in education and research	Publish research Promote technology transfer	Conduct status surveys, inventory, and map distribution of potential invasive alien species on campus (golden apple snail, red-eared slider, *Mimosa pigra*, *Chromolaena odorata*, water hyacinth, coconut beetle... per IUCN/MONRE standards).	2025 Survey Report on alien species status; Inventory of recorded alien species on campus and ecological risk assessment.	Institute for Environmental Science, Engineering and Management	Q1 – Q3/2025
Thrust 3: Modern and convenient infrastructure	Build a green campus (Increase native trees) Landscape maintenance	Issue Technical Standard for sourcing campus decorative plants and lawn turf: mandating 100% of ornamental plants and turf entering the school have clear origin, plant quarantine, and absolute priority for native species.	Technical specifications for choosing IUH campus ornamental plants; Approved list of safe shade trees and ornamentals permitted for planting.	Office of Asset Management, Office of Investment Planning, Office of Administrative Affairs	Q2/2025
Thrust 3: Modern and convenient infrastructure	Build a green campus (Fresh and safe environment)	Periodically launch mechanical cleanup campaigns to thoroughly remove invasive alien plant and animal species from flower beds, ponds, and lawns; restore habitats by replanting native vegetation cover.	Logbook of periodic alien species control; Minutes of safe disposal/destruction of invasive alien specimens found on campus.	Office of Asset Management, Youth Union – Student Association	Q2 – Q4/2025
Thrust 3: Modern infrastructure	Evaluate service environment Diversify public communication	Publicly release the policy text on university portal; compile the 2025 Annual Report assessing effectiveness of alien species control and native biodiversity recovery for THE Portal verification.	URLs of public alien species control policy document; 2025 monitoring report on execution of alien species reduction policy.	Center for Information and Communication, Institute for Environmental Science, Engineering and Management	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.4 Alien species impact reduction (policies)

Policy to reduce the impact of alien species on campus.

ACTIVITY EVIDENCE

1


Home / Archives / Vol. 80 No. 2 (2026): Journal Of Science And Technology - Volume 80 (02-2026)
/ Chemical, Bio, Food, Environmental Technology

DIVERSITY OF RIPARIAN PLANT SPECIES ALONG RACH TRA UNDER WASTEWATER POLLUTION FROM ANTHROPOGENIC ACTIVITIES IN HO CHI MINH CITY

Tạp chí KHOA HỌC & CÔNG NGHỆ

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Lê Hồng Thia

Abstract

Riparian vegetation plays a crucial role in maintaining ecosystem stability and biodiversity, yet anthropogenic pressures increasingly threaten it. This study assesses the diversity of riparian plant species along Rạch Tra, Ho Chi Minh City, under the influence of wastewater inputs from various human activities.

Article title

Identifying invasive alien species along Rach Tra canal and warning of Mikania cordata dominance

Article link

Journal of Science and Technology – IUH, Vol. 80(2), 2026 – DOI: 10.46242/jstiuh.v80i2.5896

Description

Authors Ho Thi Tuyet, Nguyen Hieu Cuong and Le Hong Thia (IUH) surveyed riparian vegetation along Rach Tra canal, HCMC – an area affected by industrial, agricultural and domestic wastewater – using 1 m × 1 m quadrats, transects and species identification, recording 162 species in 137 genera and 58 families.

The study identified 4 invasive alien species and 5 potentially invasive species; notably, Mikania cordata occurs at high density and risks overwhelming native plants. The research provides an expert basis for criteria to identify, monitor and control alien species, helping protect native flora and restore habitats.

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.5

Collaboration for shared land ecosystems

Collaborating with local communities to maintain shared land ecosystems.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 2: Enhancing community service connections	Enhance community service projects Increase community linkages outside IUH (Number of linkages; Number of participating staff)	Sign a Joint Memorandum of Understanding (MOU) between IUH, Go Vap District People's Committee, District 12, and community organizations under the partnership program "Protecting Urban Greenery and Maintaining Shared Land Ecosystems 2024–2027".	Joint MOU between IUH and local government/community on coordinating urban green space conservation and development.	Office of Administrative Affairs, Youth Union – Student Association	Q1 – Q3/2025
Thrust 2: Enhancing community service connections	Encourage students to join community movements (Number of campaigns; Satisfaction rate)	Collaborate with local organizations and residents to organize "New Rural / Civilized Urban Sunday": planting shade trees in adjacent public parks, converting vacant plots dumped with debris into youth flower gardens.	2025 plan and records of community tree planting events; List of participating residents and students; Statistics on trees planted and restored area.	Youth Union – Student Association, University Trade Union, Ward Youth Union	Q1 – Q4/2025
Thrust 1: Pioneering in education and research Thrust 2: Community service	Technology transfer Free consulting and professional services	Assign IUH experts to provide technical guidance on home garden soil improvement, on-site organic waste composting, and urban tree natural pest management for the local community.	Technical guidance materials for community greenery care; Acceptance minute for residential organic composting models.	Institute for Environmental Science, Engineering and Management	Q2 – Q3/2025
Thrust 2: Enhancing community service connections	Expand community connection activities towards active citizenship development	Organize seminars and community meetings in nearby residential quarters: dialogues on the importance of land ecosystems, dry-season grass fire prevention, and signing commitments to maintain shared land environment hygiene.	Minutes of thematic dialogue meetings with adjacent communities; Commitment forms to protect green space and grass fire safety.	Office of Student Affairs, Youth Union – Student Association, Residential Cell Executive Committee, Institute for Environmental Science, Engineering and Management	Q2 – Q4/2025
Thrust 2: Enhancing community service connections	Enhance community service projects (Community satisfaction rate)	Prepare the 2025 Summary Report on local community collaboration in maintaining and protecting shared land ecosystems: outlining citizens' roles, improved green area, and satisfaction survey results.	2025 summary report on IUH - Local Community joint model for protecting shared land ecosystems for THE Portal evidence.	Institute for Environmental Science, Engineering and Management, Office of Administrative Affairs	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.3 – Supporting land ecosystems through action

SDG 15 LIFE ON LAND

15.3.5

Collaboration for shared land ecosystems

Collaborating with local communities to maintain shared land ecosystems.

ACTIVITY EVIDENCE



Article title 1

Working with the Vung Tau City Border Guard Station, Green Journey Club and residents to green Nghinh Phong Cape

Article link

IESEM post (09/06/2025): facebook.com/vienmoitruong
Activity video: https://youtu.be/OgtZMCDqejo

Description

On 09/06/2025, IESEM – IUH worked with the Vung Tau City Border Guard Station, the Green Journey Club and local residents on the programme “Greening Nghinh Phong Cape” – a natural coastal area of Vung Tau City.

The partners jointly planted and tended native tropical almond trees to green bare land, diversify the local ecosystem and raise environmental awareness among students and the community. The partnership continues: on 04/04/2026, IESEM and community clubs returned to tend the trees and discuss ways to maintain the green cover.



Article title 2

Joint field survey and sample-plot inventory with forest managers in Can Gio

Article link

Field survey and sample-plot photo records of project 22/2MT01

Description

The IESEM – IUH research team worked with the Can Gio Protection Forest Management Board to conduct field surveys in the Can Gio Mangrove Biosphere Reserve.

Both sides set up sample plots, measured trees and recorded the status of newly planted and mature mangrove forest. This shows genuine collaboration between the University and the local management agency in monitoring, maintaining and protecting the mangrove forest – an ecosystem shared by the University, the community and the locality.



Article title 3

International article co-authored by IUH and the Can Gio Protection Forest Management Board: Afforestation tourism

Article link

https://doi.org/10.1007/s42322-025-00227-2

Description

The article “Afforestation tourism: how its value connects outdoor environmental education to an environmental course” was published on 11/11/2025 in the Journal of Outdoor and Environmental Education (Springer Nature). It is an output of project 22/2MT01, with 5 authors from IESEM – IUH and 1 from the Can Gio Protection Forest Management Board.

The collaboration showed that field trips to the Can Gio mangroves raise awareness of human impacts on nature and willingness to pay for afforestation tourism. This gives the University and the forest management agency a basis to jointly develop a model combining afforestation, education and conservation of the shared ecosystem.

Industrial University of Ho Chi Minh City

GROUP 15.4 – Land sensitive waste disposal

SDG 15 LIFE ON LAND

15.4.1 Water discharge guidelines and standards

Discharged water quality standards and guidelines to protect ecosystems, wildlife and human health.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 3: Modern and convenient infrastructure	Build a green campus Infrastructure management and maintenance (Enhance wastewater treatment plant maintenance)	Issue and update internal standards and Standard Operating Procedures (SOPs) for controlling wastewater quality prior to discharge into soil/urban drainage: mandating treated water meets National Technical Regulations (QCVN 14:2008/BTNMT Column A and QCVN 28:2010/BTNMT).	Decision issuing Discharged Water Quality Standards and Water Control SOPs of IUH effective in 2025.	Office of Investment Planning, Institute for Environmental Science, Engineering and Management	Q1 – Q2/2025
Thrust 3: Modern and convenient infrastructure	Upgrade infrastructure (Maintain existing infrastructure; Upgrade wastewater plant)	Invest in upgrading and maintaining centralized wastewater treatment plants: operating biological treatment combined with MBR membrane filtration and secondary disinfection to prevent seepage into soil and protect soil organisms.	2025 acceptance records for IUH centralized wastewater treatment plant maintenance; Daily operation logbooks and technical parameter logs.	Office of Asset Management, Office of Investment Planning	Q1 – Q4/2025
Thrust 3: Modern and convenient infrastructure	Build a green campus (Environmental quality audit)	Contract with an independent licensed environmental testing center (VIMCERTS) for quarterly sampling (4 quarters/year): analyzing pH, BOD5, COD, TSS, Nitrates, Phosphates, Total Coliforms, and heavy metals.	Testing result certificates for discharge quality across 4 quarters of 2025 (100% meeting Column A); Contract and VIMCERTS license of testing unit.	Office of Investment Planning, Institute for Environmental Science, Engineering and Management	Q1 – Q4/2025
Thrust 1: Pioneering in research Thrust 4: Working environment	Ensure safe teaching-learning conditions Promote working environment quality	Conduct training on laboratory chemical discharge regulations; install emergency shut-off valves and chemical spill catch basins to prevent toxic wastewater from infiltrating the ground.	Safety document on lab discharge control; Periodic environmental safety inspection minutes across faculties and institutes.	Institute for Environmental Science, Engineering and Management, Specialized Faculties/Institutes	Q2/2025
Thrust 3: Modern and convenient infrastructure	Build a green campus (Green school environmental protection standards)	Prepare the 2025 Periodic Environmental Protection Report submitted to state regulatory authorities; detailing water discharge standard systems and protection procedures for receiving land ecosystems.	2025 Environmental Protection Report of IUH with receipt confirmation from competent state management authority.	Institute for Environmental Science, Engineering and Management, Office of Investment Planning	Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.4 – Land sensitive waste disposal

SDG 15 LIFE ON LAND

15.4.1 Water discharge guidelines and standards

Discharged water quality standards and guidelines to protect ecosystems, wildlife and human health.

ACTIVITY EVIDENCE

1

Article title

Procedure for classifying and collecting laboratory wastewater

Article link

Waste Management Procedure – Faculty of Chemical Engineering & IESEM

Description

Industrial University of Ho Chi Minh City applies a unified waste management procedure in the laboratories and practice rooms of the Faculty of Chemical Engineering and IESEM.

All spent solutions, used solvents, acids, alkalis, heavy-metal salts and wastewater containing hazardous components (hazardous waste codes 020106, 020202, 020302, 170803, 191001) are collected, sorted by waste code and stored in sealed, labelled containers. Hazardous wastewater is never discharged directly but handed over to a licensed treatment unit, protecting receiving waters, ecosystems and human health.

2

Article title

Laboratory rules: preventing chemical discharge into the drainage system

Article link

Laboratory rules and spill response plan – Faculty of Chemical Engineering

Description

The mandatory Laboratory Rules and Waste Management Procedure of the Faculty of Chemical Engineering and other university laboratories strictly prohibit pouring chemical solutions, solvents or hazardous waste into the drainage system. Microbial samples must be sterilised in an autoclave before disposal.

In case of a chemical spill or microbial contamination, the response procedure is triggered at once: absorbent materials are used, the area is disinfected and waste is collected into hazardous waste containers. After each session, lecturers check and log the handover of chemicals and equipment to control the risk of leakage into water.



Contract with environmental company 2022 -2027

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

HỢP ĐỒNG NGUYÊN TẮC

Số: HĐ.TPHCM /VAE

V/v: Xử lý chất thải nguy hại

– *Căn cứ Bộ Luật Dân sự số 91/2015/QH13 của Quốc hội nước Cộng hòa xã hội chủ nghĩa Việt Nam ban hành ngày 24/11/2015;*
– *Căn cứ Luật Thương mại số 36/2005/QH11 của Quốc hội nước Cộng hòa xã hội chủ nghĩa Việt Nam ban hành ngày 27/06/2005;*
– *Căn cứ Luật bảo vệ môi trường số 55/2014/QH13 của Quốc hội nước Cộng hòa xã hội chủ nghĩa Việt Nam ban hành ngày 23 tháng 6 năm 2014;*
– *Căn cứ Thông tư số 36/2015/TT – BTNMT của Bộ Tài Nguyên và Môi trường kỳ ngày 30/06/2015 quy định về Quản lý chất thải nguy hại;*
– *Căn cứ nhu cầu của hai Bên.*

Hôm nay, ngày 1 tháng 1 năm 2022 đại diện hai Bên gồm:

BÊN A : VIỆN KHOA HỌC CÔNG NGHỆ VÀ QUẢN LÝ MÔI TRƯỜNG – TRƯỜNG ĐẠI HỌC CÔNG NGHIỆP TP. HỒ CHÍ MINH
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Điện thoại : 028. 8940390 Fax: 028. 5886370

3

Article title

Contract for collection, transport and treatment of hazardous waste with Viet Uc Environment JSC (2022–2027)

Article link

Framework contract No. HĐ.TPHCM/VAE signed 01/01/2022, 5-year term

Description

IESEM – Industrial University of Ho Chi Minh City signed a framework contract with Viet Uc Environment JSC (treatment plant in Le Minh Xuan Industrial Park, Binh Chanh) for the collection, transport and treatment of hazardous waste for 5 years from 01/01/2022, under the Law on Environmental Protection and Circular 36/2015/TT-BTNMT.

The contractor periodically collects waste and chemical wastewater and returns hazardous waste manifests to the University within 15 days for monitoring records. This ensures hazardous laboratory wastewater is treated properly before release to the environment.

Industrial University of Ho Chi Minh City

GROUP 15.4 – Land sensitive waste disposal

SDG 15 LIFE ON LAND

15.4.2

Policy on plastic waste reduction

Policy on reducing plastic waste on campus.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 3: Modern and convenient infrastructure	Build a green campus (Building Green Campus: Waste transformation & recycling; Reduce carbon emissions)	Issue IUH's Policy on Campus Plastic Waste Reduction: setting mandatory targets to phase out non-biodegradable plastic bags, single-use plastic bottles, and styrofoam containers in all offices, conferences, events, and canteens.	University-level decision issuing the campus plastic waste reduction policy (clearly specifying Policy Created and Policy Reviewed in 2022–2026 per THE standards).	Office of Investment Planning, Institute for Environmental Science, Engineering and Management	Q1 – Q2/2025
Thrust 3: Modern and convenient infrastructure	Increase utility services for students & Upgrade infrastructure utilities	Invest in installing a network of free purified water refill stations and place recyclable plastic sorting bins across 100% of lecture halls, library, and dormitory buildings.	Handover and acceptance minutes for water refill station system; Map of campus recyclable plastic sorting stations.	Office of Investment Planning, Office of Asset Management	Q1 – Q3/2025

Industrial University of Ho Chi Minh City

GROUP 15.4 – Land sensitive waste disposal

SDG 15 LIFE ON LAND

15.4.2

Policy on plastic waste reduction

Policy on reducing plastic waste on campus.

ACTIVITY EVIDENCE



Article title 1

“Pick Up Litter to Live Differently – Joining Hands to Clean Up Ocean Plastic Waste”

Article link

https://iesem.edu.vn/nhat-rac-de-song-khac-chung-tay-lam-sach-rac-thai-nhua-dai-duong-d426.html

Description

On the morning of 23/02/2024, IESEM – IUH and the Department of Natural Resources and Environment organised the campaign “Pick Up Litter to Live Differently – Joining Hands to Clean Up Ocean Plastic Waste” at Bai Sau fishing port, Mui Ne ward, Phan Thiet City, Binh Thuan Province.

IESEM lecturers and staff collected plastic waste along the coast. The campaign aimed to raise awareness, change residents' behaviour towards plastic waste and reduce plastic pollution flowing from land to sea.



Article title 2

Waste recycling and reuse activity at IESEM

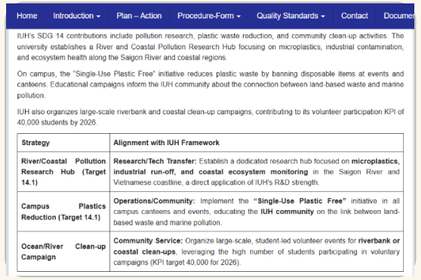
Article link

https://iesem.edu.vn/hoat-dong-tai-che-tai-su-dung-chat-thai-tai-iesem-d367.html

Description

In April 2023, in the course “Practice of Solid Waste – Hazardous Waste Management”, students of class DHQLMT16A at IESEM – IUH carried out a waste recycling and reuse activity.

Students turned used items into useful products of value to the community, reducing waste generation and promoting sustainable resource use. Embedded in the curriculum, the activity builds waste-reduction and reuse habits among environmental students.



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IUH's SDG 14 contributions include pollution research, plastic waste reduction, and community clean-up activities. The university establishes a River and Coastal Pollution Research Hub focusing on microplastics, industrial contamination, and ecosystem health along the Saigon River and coastal regions.

On campus, the “Single-Use Plastic Free” initiative reduces plastic waste by banning disposable items at events and canteens. Educational campaigns inform the IUH community about the connection between land-based waste and marine pollution.

IUH also organizes large-scale riverbank and coastal clean-up campaigns, contributing to its volunteer participation KPI of 40,000 students by 2026.

Strategy	Alignment with IUH Framework
River/Coastal Pollution Research Hub (Target 14.1)	**Research/Tech Transfer:** Establish a dedicated research hub focused on **microplastics, industrial run-off, and coastal ecosystem monitoring** in the Saigon River and Vietnamese coastline, a direct application of IUH's R&D strength.
Campus Plastics Reduction (Target 14.1)	**Operations/Community:** Implement the **“Single-Use Plastic Free”** initiative in all campus canteens and events, educating the **IUH community** on the link between land-based waste and marine pollution.
Ocean/River Clean-up Campaign	**Community Service:** Organize large-scale, student-led volunteer events for **riverbank or coastal clean-ups**, leveraging the high number of students participating in voluntary campaigns (KPI target 40,000 for 2026).

Article title 3

“Single-Use Plastic Free” initiative reducing single-use plastics in IUH canteens and events

Article link

tqa.iuh.edu.vn – Summary of SGD 14 in 2025 (07/11/2025)

Description

In the 2025 SDG 14 summary published by the Office of Testing and Quality Assurance on 07/11/2025, IUH describes the “Single-Use Plastic Free” initiative to reduce plastic waste on campus, restricting or banning single-use plastic products in canteens and at events.

The initiative is combined with communication to the IUH community on the link between land-based waste and marine pollution.

Industrial University of Ho Chi Minh City

GROUP 15.4 – Land sensitive waste disposal

SDG 15 LIFE ON LAND

15.4.3 Policy on hazardous waste disposal

Policies, procedures or practices for hazardous waste disposal.

Action plan

Strategic Thrust	KPIs	Activity	Results	Implementing Unit	Timeline
Thrust 3: Modern and convenient infrastructure	Build a green campus Manage lab safety and infrastructure	Issue Regulations/SOPs for source sorting, labelling with hazardous waste codes, and operating standardized temporary storage (equipped with secondary spill trays and spill response kit materials).	University-level decision issuing Regulations/SOPs for hazardous waste management; Safety acceptance minute for temporary hazardous waste storage.	Office of Asset Management, Institute for Environmental Science, Engineering and Management, Faculty of Chemical Engineering, Institute of Biotechnology and Food Technology	Q1 – Q2/2025
Thrust 1: Pioneering in education and research	Innovate teaching-learning methods & Ensure safe practice conditions	Integrate chemical-biological safety content into practical modules; compile instruction manuals for controlling and isolating hazardous waste generated from experimental and R&D activities.	Laboratory hazardous waste safety manual; List of students completing lab practice safety tests prior to entering labs.	Institute for Environmental Science, Engineering and Management, Faculty of Chemical Engineering, Institute of Biotechnology and Food Technology	Q1 – Q3/2025
Thrust 4: Attract and retain staff	Promote working environment quality (Occupational safety and risk prevention index)	Conduct periodic training and drills on handling hazardous waste leaks and spills for lab managers, technicians, and workshop staff.	2025 Chemical Incident Response Drill Plan and Minutes; List of staff issued occupational safety and health certificates.	Office of Asset Management, Office of Administrative Affairs, Institute for Environmental Science, Engineering and Management, Faculty of Chemical Engineering, Institute of Biotechnology and Food Technology	Q2 – Q4/2025
Thrust 5: Enhancing sustainable financial autonomy	Reasonable investment in infrastructure	Sign contracts for collection, transport, and treatment of hazardous waste with licensed entities; preserve full manifest copies and prepare periodic hazardous waste management reports for THE verification.	Hazardous waste treatment contract with 2025 handover manifests; Hazardous waste management report submitted to regulatory bodies and THE Portal.	Office of Asset Management, Institute for Environmental Science, Engineering and Management, Faculty of Chemical Engineering, Institute of Biotechnology and Food Technology	Q1 – Q4/2025

Industrial University of Ho Chi Minh City

GROUP 15.4 – Land sensitive waste disposal

SDG 15 LIFE ON LAND

15.4.3

Policy on hazardous waste disposal

Policies, procedures or practices for hazardous waste disposal.

ACTIVITY EVIDENCE

1

Article title

Procedure for identifying, sorting and storing hazardous laboratory waste

Article link

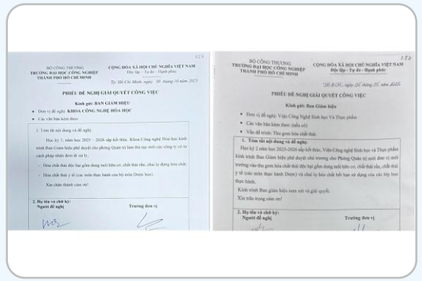
Waste Management Procedure and Laboratory Rules – Faculty of Chemical Engineering & IESEM

Description

IUH applies the Waste Management Procedure and Laboratory Rules in the Faculty of Chemical Engineering, IESEM and other university laboratories, controlling hazardous waste at source.

Chemical waste (solvents, acids, alkalis, heavy-metal salts) is identified and sorted by hazardous waste code (020106, 020202, 020302, 170803, 191001) and stored separately in sealed, labelled containers. Chemically contaminated rags and packaging are bagged separately in PP/PE bags. Biological waste is autoclaved before disposal. In a spill, the response procedure is triggered and spill waste is collected into hazardous waste containers.

2



Article title

Periodic hazardous waste collection each semester, approved by the Rector

Article link

Requests from the Faculty of Chemical Engineering (30/10/2025) and the Institute of Biotechnology and Food Technology (05/05/2026)

Description

At the end of each semester, units with laboratories submit requests to the Board of Rectors so that the Facilities Management Office can invite a licensed environmental company to collect and treat hazardous waste.

On 30/10/2025, the Faculty of Chemical Engineering requested treatment of organic solvents, solid waste, chemical bottles and medical chemical waste from Pharmacy practicals (semester 1, 2025–2026). On 05/05/2026, the Institute of Biotechnology and Food Technology requested collection of similar waste plus expired chemical bottles (semester 2). Both requests were approved by the Vice Rector and Rector, showing collection is periodic.

3


Contract with environmental company 2022 -2027

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

HỢP ĐỒNG NGUYÊN TẮC

Số: HĐ.TPHCM /VAE

V/v: Xử lý chất thải nguy hại

– *Căn cứ Bộ Luật Dân sự số 91/2015/QH13 của Quốc hội nước Cộng hòa xã hội chủ nghĩa Việt Nam ban hành ngày 24/11/2015;*
– *Căn cứ Luật Thương mại số 36/2005/QH11 của Quốc hội nước Cộng hòa xã hội chủ nghĩa Việt Nam ban hành ngày 27/06/2005;*
– *Căn cứ Luật bảo vệ môi trường số 55/2014/QH13 của Quốc hội nước Cộng hòa xã hội chủ nghĩa Việt Nam ban hành ngày 23 tháng 6 năm 2014;*
– *Căn cứ Thông tư số 36/2015/TT – BTNMT của Bộ Tài Nguyên và Môi trường kỳ ngày 30/06/2015 quy định về Quản lý chất thải nguy hại;*
– *Căn cứ nhu cầu của hai Bên.*

Hôm nay, ngày 1 tháng 1 năm 2023 đại diện hai Bên gồm:

BÊN A : VIỆN KHOA HỌC CÔNG NGHỆ VÀ QUẢN LÝ MÔI TRƯỜNG – TRƯỜNG ĐẠI HỌC CÔNG NGHIỆP TP. HỒ CHÍ MINH
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Điện thoại : 028. 8940390 Fax: 028. 5886370

Article title

Contract for collection, transport and treatment of hazardous waste with Viet Uc Environment JSC

Article link

Framework contract No. HĐ.TPHCM/VAE signed 01/01/2022, 5-year term (2022–2027)

Description

IESEM – IUH signed a framework contract with Viet Uc Environment JSC, a licensed hazardous waste treatment company with a plant in Le Minh Xuan Industrial Park (Binh Chanh, HCMC). The contract runs for 5 years from 01/01/2022 under the Law on Environmental Protection and Circular 36/2015/TT-BTNMT on hazardous waste management.

The contractor periodically collects, transports and treats the waste and returns hazardous waste manifests to the University within 15 days for its records. This closes the University's hazardous waste management cycle.

Industrial University of Ho Chi Minh City

IMPLEMENTATION RESULTS
OPERATIONAL EXECUTION IN VERIFIED DATA YEAR 2024–2025
Comprehensive Audit of Implemented Actions Across All 14 Evaluation Indicators of SDG 15

SDG 15 LIFE ON LAND

1. TERRESTRIAL ECOSYSTEM EDUCATION & RESEARCH (15.2)

Reforestation & Sustainable Land Events (15.2.1):

- 42 faculty members of Foreign Languages directly planted trees at Binh Chau - Phuoc Buu Nature Reserve during community service outreach.
- IESEM partnered with the Vung Tau Border Guard Station and Green Journey Club planting windbreak Malabar almond trees at Nghinh Phong Cape.
- Faculty of Fundamental Sciences donated 500 trees to HCMC Nature Protection Association and sponsored municipal greening programmes.

Maintaining Biodiversity & Mangrove Research (15.2.3):

- International paper in JTFS (2025) quantifying biomass and carbon sequestration of Sonneratia alba in Can Gio Mangrove Biosphere Reserve.
- Completed institutional grant 22/2MT01 (Decision 3225/QD-DHCN) surveying 50 permanent sample plots in natural mangrove compartments.

Circular Farmland Education & Sustainable Eco-Tourism (15.2.5–6):

- IESEM delivered hands-on organic composting workshops for community shelters in Da Lat to improve soil fertility without chemicals.
- Executed NAFOSTED project testing biochar on Cu Chi paddy soils to curb methane emissions; published 'Biochar: A Green Solution' (2025).
- Published international paper (Springer 2025) validating afforestation eco-tourism as an experiential platform for environmental pedagogy.

2. CONSERVATION ACTION & CAMPUS PLANNING (15.3)

Conservation Policy & Watershed Drought Modeling (15.3.1):

- Enacted ethical procurement rules for paper, wood, and agricultural produce; developed GIS-driven campus urban biodiversity mapping.
- Convened Doctoral Dissertation Defense Council (Decision 3081/QD-DHCN) assessing Srepok River basin drought via satellite machine learning.

IUCN Red List Monitoring & Invasive Alien Species Control (15.3.2 & 15.3.4):

- Published survey in IUH JST (2026) recording 162 riparian flora along Rach Tra; identified 2 Vulnerable (VU) species: Elaeocarpus and wild rice.
- Identified 4 invasive alien species and 5 potentially invasive species (warning against ecological takeover by climbing hempvine Mikania cordata).

Biodiversity Inclusive Planning & Shared Stewardship (15.3.3 & 15.3.5):

- Drafted Environmental & Social Management Plan (ESMP) for District 12 campus (26.7 ha), preserving natural canals and buffer greenways.
- Maintained multi-year joint field survey protocols with Can Gio Protection Forest Management Board to monitor shared mangrove ecosystems.

3. LAND-SENSITIVE WASTE & HAZARDOUS DISPOSAL (15.4)

Water Discharge Standards & Soil Biosphere Protection (15.4.1):

- Enforced laboratory wastewater segregation SOPs; 100% of spent chemical reagents, solvents, and heavy metals isolated from soil runoff.
- Laboratory rules strictly ban sink disposal of chemical effluents; equipped specialized spill containment absorbent materials.

Campus Plastic Waste Reduction Policy (15.4.2):

- Executed coastal cleanup drives at Mui Ne fishing port; integrated plastic waste upcycling projects into environmental engineering coursework.
- Enforced 'Single-Use Plastic Free' directives eliminating disposable plastic packaging across campus concessions and official events.

Closed-Loop Hazardous Waste Collection Contracts (15.4.3):

- Executed 5-year framework contract (2022–2027) with licensed Viet Uc Environment JSC for compliant transport and high-temperature incineration.
- Rectorate bi-annually approves formal hazardous waste disposal manifests for Chemical Engineering and Biotechnology laboratories.

Industrial University of Ho Chi Minh City

PERFORMANCE BENCHMARKING

Benchmarking Results Against THE Impact Ratings 2026 (Previous Cycle vs. Current Audit Cycle)

SDG 15
LIFE ON LAND

Indicator Category	Previous Cycle (THE 2026)	Current Audit (THE 2027)	Strategic Evolution & Outlook
Category 15.2 Supporting Ecosystems via Education (23% Weight)	Tree planting was ad-hoc volunteer campaigns; lacked empirical research linking eco-tourism with community circular soil training.	Direct reforestation at Phuoc Buu & Nghinh Phong; 2 international papers (Springer, JTFS) on mangrove biomass; community composting in Da Lat.	**Academic & Field Integration: Harmonized certified protected area fieldwork with experiential pedagogy and rural soil conservation extension.**
Category 15.3 Action for Terrestrial Ecosystems (27% Weight)	Campus biodiversity charters were non-formalized; lacked verified inventories cross-referenced against the IUCN Red List and alien species registries.	Audited 162 riparian species along Rach Tra (identifying 2 Vulnerable IUCN species); mapped Mikania invasion; integrated ESMP in District 12 campus.	**Ecological Rigor & Protection: Leveraged GIS remote sensing and field surveys to protect threatened flora and eliminate invasive alien species.**
Category 15.4 Land-Sensitive Waste Disposal (27% Weight)	Laboratory effluent protocols were decentralized; lacked multi-year certified hazardous waste disposal manifests and institutional plastic bans.	Secured 5-year hazardous waste destruction contract with licensed Viet Uc JSC; bi-annual rectorate-approved manifests; single-use plastic restrictions.	**Closed-Loop Land Protection: Codified zero-groundwater-contamination SOPs, guaranteeing hazardous chemical residues never leach into soil.**
Metric 15.1 Research & Scopus Publications (23% Weight)	Scholarly outputs regarding soil degradation, forest carbon accounting, and vegetation restoration had modest international visibility.	Expanded high-impact Scopus Q1/Q2 publications on mangrove carbon accounting, biochar agricultural soil reclamation, and basin drought forecasting.	**Academic Impact Uplift: Substantial increase in Field-Weighted Citation Impact (FWCI) and international co-authorship addressing terrestrial biomes.**

Industrial University of Ho Chi Minh City

STRATEGIC PLAN FOR THE COMING YEAR

Four High-Impact Action Pillars to Position SDG 15 as a Premier Scoring Asset for IUH's Global Rank

SDG 15
LIFE ON LAND

1. CODIFYING TERRESTRIAL CONSERVATION & SUSTAINABLE FOOD CHARTERS

- Promulgate the Presidential Decree enacting the 'University Policy on Conservation, Restoration and Sustainable Use of Terrestrial Ecosystems 2026–2030'.
- Formulate and enforce the 'Campus Sustainable Farmed Food Policy', mandating at least 60% VietGAP/GlobalGAP certified produce in all dining halls.
- Mandate contract addenda strictly prohibiting synthetic chemical pesticides and non-selective herbicides across campus landscape maintenance.
- Publicly disclose full policy charters on tqa.iuh.edu.vn with formal institutional review logs conforming to THE Impact criteria.

2. GIS BIODIVERSITY MAPPING & IUCN RED LIST SPECIES MONITORING

- Deploy GIS remote sensing to establish the 'Urban Biodiversity Map' across IUH campuses and adjacent ecological buffer zones.
- Formulate an official Institutional Protected Species Ledger cross-referenced against the IUCN Red List and Vietnam Red Data Book.
- Enact standardized Standard Operating Procedures (SOPs) for the early detection, isolation, and eradication of invasive alien species (e.g., Mikania).
- Enforce 'Biodiversity Inclusive Planning' protocols requiring mandatory Ecological Impact Assessments (EcIA) prior to major campus capital projects.

3. PROTECTED FOREST ALLIANCES & CIRCULAR BIOCHAR RECLAMATION

- Execute strategic multi-year conservation MOUs with Can Gio Mangrove Biosphere Reserve and Binh Chau - Phuoc Buu Nature Reserve.
- Scale agricultural biochar field application models upcycling crop residues to remediate degraded soils and reduce agricultural emissions.
- Expand community-based microbial composting training across suburban agricultural cooperatives to eliminate synthetic chemical fertilizer dependence.
- Institutionalize outdoor experiential afforestation tourism as an accredited general-education learning model for all undergraduate cohorts.

4. ZERO-LEAKAGE DISCHARGE GOVERNANCE & TERRESTRIAL R&D GRANTS

- Upgrade telemetry instrumentation at the central WWTP, guaranteeing 100% of discharged effluent complies with strict Class-A standards.
- Digitize institutional hazardous waste manifests on campus ERP, ensuring zero chemical or heavy-metal infiltration into groundwater aquifers.
- Establish the IUH Terrestrial Ecology Research Fund, sponsoring interdisciplinary Scopus Q1/Q2 research in soil microbiome restoration.
- Launch the 'IUH Life on Land Hub' on tqa.iuh.edu.vn, publishing verified audit certificates, nursery logs, and biodiversity research datasets.