SDGs' REPORT 2026 · SDG 14

Life Below Water

UNESA is teaching water-saving fish farming, protecting mangroves and keeping the water around its campuses clean.



Local fishers and UNESA students build and place the floating longline for green mussel farming off Ngemboh village, Gresik, East Java, 17 June 2026.

SDG 14 AT A GLANCE

Protecting life below water from the campus to the coast

SDG 14 asks universities to help protect oceans, seas and rivers: to teach communities about water ecosystems, to act and do research for aquatic life, to keep their own wastewater and runoff from harming water, and to look after the ecosystems near them. This report sets out what UNESA did on each of these in 2025 and 2026.

HOW UNESA WORKS ON SDG 14

The Faculty of Food Security and its S1 Aquaculture programme lead much of UNESA's work on life below water. The Eco Campus teams of the Faculty of Mathematics and Natural Sciences care for the campus retention pond, student groups of the Geography Education programme run mangrove events, and the Faculty of Education's student council works with fisher families in Gresik. The Rector holds the city approvals that set the wastewater standard for the campuses, and the research and community service institute funds research and community service.

This report is one of seventeen: UNESA reports its progress on each SDG separately, and each report links to the full evidence pages, with every source, at sdgscenter.unesa.ac.id.

IN THIS REPORT

Policy and governance	3
Campus water	4
Education for communities	5
Fisher communities	6
Mangroves and coasts	7
Research and monitoring	8
Technology and industry	9
Partners and recognition	10
Sources	11

SDG 14 online: every evidence page, with its sources, under SDG metrics at sdgscenter.unesa.ac.id

SDG 14 AT UNESA IN 10 FIGURES

7
wastewater limits fixed by the city's 2023 approval for the Lidah Wetan campus
PAGE 3

2
city-approved environmental plans: Lidah Wetan (27 Feb 2024) and Ketintang (28 Jul 2025)
PAGE 4

14,781
m³ of storm runoff to be held in retention ponds at Lidah Wetan; at least 6,396 m³ at Ketintang
PAGE 4

3
trainings in water-saving fish farming for teachers and villagers, 2025 and 2026
PAGE 5

4
working groups of Ngemboh fishers and families, formed 17 June 2026
PAGE 6

100
mangrove trees planted by 65 volunteers at Wonorejo, Surabaya, 26 April 2026
PAGE 7

10th
East Java Mangrove Festival, 29 July 2026, joined by UNESA students
PAGE 7

11
snail species recorded in Surabaya's Kebun Raya Mangrove as water-quality indicators
PAGE 8

98%
survival of red tilapia in a 2026 UNESA bioflok study with almost no water exchange
PAGE 9

56
Aquaculture students certified by an FAO online course, February 2026
PAGE 10

POLICY AND GOVERNANCE

A city standard for the water that leaves the campuses

A technical approval from the Surabaya Environment Office, issued to the Rector on 16 November 2023, sets the quality standard for wastewater at UNESA's Lidah Wetan campus. Rector's Regulation 12 of 2026 gives water management a place in the university's own rules.

16 Nov
2023: the city's technical approval that sets the wastewater standard for the Lidah Wetan campus

7
wastewater limits fixed by the approval: pH, BOD, COD, TSS, oil and grease, ammonia and total coliform

15 Sep
2026: a further city approval, for treated wastewater from the Rectorate building used on land

14 Apr
2026: Rector's Regulation 12 on safety, health and the environment was set

THE WASTEWATER STANDARD

The Surabaya Environment Office issued Technical Approval Number 600.4.5.2/1020/436.7.10/2023 to the Rector on 16 November 2023, for the domestic wastewater of the campus's education and office activities. Every parameter must follow Ministry of Environment Regulation P.68 of 2016 on domestic wastewater quality, set out in the table below. The approval covers two treatment clusters on the campus and lets treated water be used to water green space.

WHAT THE APPROVAL ASKS OF UNESA

UNESA must treat all of its wastewater so that the water it discharges or reuses does not exceed the standard, keep wastewater and rainwater channels separate, install watertight wastewater channels, fit a flow meter and record the daily flow.

THE STANDARD IN THE CAMPUS PLANS

UNESA's city-approved environmental plans carry the standard into monitoring. The Lidah Wetan plan, approved on 27 February 2024, provides for monthly sampling of domestic wastewater at the two outlets against Regulation P.68 of 2016, groundwater sampling at two upstream and two downstream wells in the campus green space, and a report to the Environment Office every three months. The Ketintang plan, approved on 28 July 2025, commits UNESA to a wastewater plant of 1,050 m³ a day under technical approval Number 600.4.5.2/987/436.7.10/2024, monthly sampling, and an effluent standard for watering green space (pH 6 to 9, BOD 12 mg/L, COD 80 mg/L).

A FURTHER APPROVAL AND A UNIVERSITY RULE

On 15 September 2026 the Environment Office issued Technical Approval Number 600.4.5.2/1467/436.7.10/2026 for the wastewater plant of the Rectorate building, for treated wastewater used on land. Rector's Regulation Number 12 of 2026 on safety, health and the environment, set on 14 April 2026, lists wastewater treatment among the water management measures of the eco-campus (Article 9(4)(b)).

WASTEWATER LIMITS IN THE 2023 TECHNICAL APPROVAL (MINISTRY OF ENVIRONMENT REGULATION P.68 OF 2016)

PARAMETER	WHAT IT SHOWS	UNIT	LIMIT
pH	How acid or alkaline the water is	none	6 to 9
BOD	Oxygen that bacteria use to break down organic matter	mg/L	30
COD	Oxygen needed to break down organic and chemical matter	mg/L	100
TSS	Solid particles floating in the water	mg/L	30
Oil and grease	Fats and oils, for example from canteen kitchens	mg/L	5
Ammonia	Nitrogen waste that is harmful to aquatic life	mg/L	10
Total coliform	Bacteria that show contamination by human waste	number per 100 mL	3,000

CAMPUS WATER

Keeping the water around the campuses clean and the runoff in check

Each of UNESA's two Surabaya campuses has an environmental plan approved by the city. Student teams add their own care for the campus retention pond, the bozem.

AGAINST CHEMICAL CHANGE

The Lidah Wetan plan commits UNESA to treat domestic wastewater and use the treated water to water green space, to fit grease traps on canteens, to prepare procedures for handling water pollution, and to sample wastewater every month and groundwater at upstream and downstream wells. The Ketintang plan adds daily cleaning of canteen grease traps, removal of sludge by a licensed operator, and a commitment that wastewater causes no pollution around the campus. It also asks UNESA not to use groundwater.

AGAINST PHYSICAL CHANGE

Both plans keep rainwater runoff in channels separate from wastewater and make wastewater channels watertight. For storm runoff, a city drainage direction of 5 September 2022 requires retention ponds of 14,781 m³ at Lidah Wetan, and a city drainage approval of 31 July 2024 requires a retention pond or storage channel of at least 6,396 m³ at Ketintang, with regular dredging of sediment so that drains work in the rainy season. The Ketintang document records that the campus already has a bozem that holds part of the rain.

LOOKING AFTER THE BOZEM

On Sunday 7 June 2026, for World Environment Day, the Eco Campus team of the S1 Biology programme and the Biodiversity Conservation division controlled and monitored the bozem, which they describe as a conservation area that supports water resource management on campus. They checked the condition of the ecosystem, the cleanliness of the area and the plants and animals that use it as habitat, and kept up urban farming and composting at the same session.

TEACHING AT THE BOZEM

The same team returned to the bozem on 3 August 2026 for conservation education. Visiting students and lecturers of Universiti Kebangsaan Malaysia learned to make eco enzyme from fermented organic waste and poured it into the bozem area. The Eco Campus teams of the Faculty of Mathematics and Natural Sciences run this as a standing activity, repeated on different dates.

THE TWO CAMPUS PLANS SIDE BY SIDE

MEASURE	LIDAH WETAN CAMPUS	KETINTANG CAMPUS
Plan approved	27 February 2024, Surabaya Environment Office	28 July 2025, city environmental feasibility decision
Wastewater	Wastewater to meet the standard of the 2023 technical approval; sampled every month	A 1,050 m³ a day wastewater plant committed under technical approval 600.4.5.2/987/436.7.10/2024; wastewater sampled every month
Groundwater	Two upstream and two downstream monitoring wells in the campus green space	Monitoring wells upstream and downstream of the campus; groundwater not used
Channels	Rainwater and wastewater channels kept separate; wastewater channels watertight	Rainwater and wastewater channels kept separate to the compliance point; wastewater channels watertight
Storm runoff	Retention ponds of 14,781 m³ under the city drainage direction of 5 September 2022	Retention pond or storage channel of at least 6,396 m³ under the city approval of 31 July 2024, plus the existing bozem
Reporting	To the Environment Office every three months	To the Environment Office every three months

EDUCATION FOR COMMUNITIES

Teaching villagers and teachers to farm fish with less water

UNESA's S1 Aquaculture programme, in the Faculty of Food Security, takes water-saving fish farming out of the classroom and into villages and schools.

3

trainings for teachers and villagers, in June 2025, October 2025 and May 2026

20 to 30

days of fermenting banana stem, rice straw, compost and paddy mud into an eel-rearing medium, taught at Trepan

19

people, 15 students and 4 lecturers, from the Eco Campus team of another faculty, learned aquaponics at the Aquaculture programme on 8 May 2026

TREPAN VILLAGE, LAMONGAN

On 24 May 2026 the S1 Aquaculture programme held community service at the village hall and a culture site in Trepan, Babat, Lamongan, for village officials, farmer groups, fish farmers and residents. The village has rice fields along a river, and the team found that residents wanted technical knowledge of fermenting organic matter and of managing the quality of the culture environment. The lecturers taught catfish rearing in a bioflok system, which keeps water quality, reduces how often water must be changed and allows a higher stocking density than conventional ponds. UNESA's research and community service institute (LPPM) funded the work through its 2026 community service grant, and the visit included the signing of an Implementation Arrangement so that the cooperation with the village continues.

REJOTENGAH VILLAGE, LAMONGAN

On 28 October 2025 lecturers of UNESA and Universitas Islam Lamongan held a programme in Rejotengah, a village short of clean water in the dry season. After a focus group discussion on water scarcity, the team introduced round fish ponds with closed water circulation, in which nutrient-rich pond water feeds hydroponic plants above the pond. Residents learned to build and maintain the ponds, and were advised on managing household wastewater and making natural fish feed. Some residents began building water-saving ponds in their own yards as pilots. The Ministry of Higher Education, Science and Technology funded the programme, with support from LPPM.

BIOLOGY TEACHERS FROM EAST JAVA

In June 2025 the Aquaculture programme trained biology teachers of Madrasah Aliyah schools from across East Java in bioflok fish farming. The training was held at MAN 2 Lamongan with the madrasah education division of the East Java office of the Ministry of Religious Affairs, and its head opened it. Teachers practised on the demonstration bioflok unit at the school. The programme presented the technique as environmentally friendly, as saving land and cost, and as a contextual learning medium for biology classes.

LEARNING ACROSS FACULTIES

On 8 May 2026 the Eco Campus team of the Faculty of Mathematics and Natural Sciences visited the Faculty of Food Security to learn about urban farming. Aquaculture students guided them through the hydroponic system and its change to aquaponics, where plants and catfish share one nutrient cycle, and through the bioflok catfish pond at the faculty's Smart Agriculture Techno Park. The Aquaculture coordinator said the lessons could be used on the visitors' own faculty grounds.



Aquaculture students show the hydroponic and aquaponic rows to the Eco Campus team of the Faculty of Mathematics and Natural Sciences at the Faculty of Food Security, Surabaya, 8 May 2026.

FISHER COMMUNITIES

Working with Ngemboh's fishers on a sustainable coast

On 17 June 2026 a UNESA student team, the village government, fisher groups and city offices formed the Ngemboh Smart Maritime Community in Gresik, and fishers and students put a floating mussel longline to sea the same day.

25
participants at the 17 June 2026 declaration, among them the village head, fisher groups and the Gresik Fisheries and Environment Offices

4
working groups: mussel farming, mussel-meat processing, shell-waste use and marketing

4
months of demonstrations, practice and mentoring, so the community can continue on its own

17 Jun
2026: the floating longline replacing bamboo stakes was placed at sea from the Ngemboh fish auction site

BUILT WITH THE VILLAGE

The student council of the Faculty of Education (DPM FIP) won 2026 funding under the national student organisation capacity programme (PPK Ormawa) for Long-Econ, a programme to make better use of the green mussels (Perna viridis) of Ngemboh's coastal waters. Before writing it, the students held observations, interviews and discussions with the village government, fisher groups and residents. They found that farming methods were not yet optimal, that little value was added to the harvest, that mussel shells were left as waste and that marketing was limited. The programme aims to raise fishers' income and to strengthen their knowledge of and care for the coastal environment.

A FORUM THAT RESIDENTS RUN

At the heart of the programme is the Smart Maritime Community, a forum of fishers and their families, the village government, coastal women's groups and other partners. On 17 June 2026 it was declared at the Ngemboh village hall, and the parties signed a joint commitment. The UNESA team trains each of the four working groups, so that the community can stand on its own when mentoring ends.

AT SEA, TOGETHER

On the same day the longline working group of local fishers and the UNESA students placed a floating longline at sea for green mussel farming. It replaces the traditional method of farming mussels on bamboo stakes and, the report says, adapts better to seasonal and water conditions. The team and the village stated a shared commitment to productive and sustainable management of their coastal resources.

SUSTAINABLE SHRIMP FARMING, ONLINE

On 8 June 2026 the Aquaculture programme held an online Aquaculture Fest for World Environment Day, for students, lecturers and practitioners. An inspection manager of PT Alter Trade Indonesia and secretary general of Konservasi Indonesia set out farming standards that cover permits, traceability, environmental responsibility and animal welfare, said that ponds must not damage mangrove areas and that waste water must not harm the outside environment, and urged farmers to monitor temperature, pH, salinity and dissolved oxygen twice a day.

FISHERIES EDUCATION AND THE NGEMBOH PROGRAMME, 2026

DATE	WHAT HAPPENED	WITH
26 May 2026	The Faculty of Education student council wins 2026 PPK Ormawa funding for the Ngemboh programme	National student organisation capacity programme
8 Jun 2026	Online Aquaculture Fest on sustainable, climate-adaptive shrimp farming	Industry and conservation speaker; students, lecturers and practitioners
17 Jun 2026	Ngemboh Smart Maritime Community declared at the village hall; joint commitment signed	Village government, fisher groups, women's welfare group, village enterprise, Gresik Fisheries and Environment Offices
17 Jun 2026	Floating two-ecosystem longline for green mussels placed at sea	Local fishers
From 17 Jun 2026	Four months of demonstrations, practice and mentoring for the four working groups	Fisher families of Ngemboh

MANGROVES AND COASTS

Planting mangroves and cleaning the coast

In 2026 UNESA students, summer-course participants and staff planted mangroves, cleaned beaches and joined government conservation events along the East Java coast.

100
mangrove trees planted by 65 volunteers at Wonorejo, Surabaya, on 26 April 2026

~5 km
of mangrove forest crossed by boat on 5 February 2026, removing waste and planting seedlings

29 Jul
2026: UNESA joined the 10th East Java Mangrove Festival at Panduri Beach, Tuban

30 Aug
2026: Greenty Action Day beach clean-up, with lessons on waste beforehand

WONOREJO, SURABAYA

On 5 February 2026, the community service day of the UNESA-Equity International Summer Course 2026, participants from the Faculty of Medicine and the S1 Aquaculture programme planted mangroves and cleaned the coast at Taman Mangrove Wonorejo. On 26 April 2026 the Geography Study Club of the S1 Geography Education programme organised Eco Fun Mangrove Day at the Wonorejo Mangrove Ecotourism Area. Sixty-five participants, among them volunteers from other universities and four from South Korea, travelled by boat to the site and planted 100 mangrove trees under the theme Mangrove Adventure.

EAST JAVA MANGROVE FESTIVAL

On 29 July 2026 the East Java Provincial Forestry Office held the 10th East Java Mangrove Festival for World Mangrove Day at Panduri Beach, Jenu, Tuban. UNESA's Crisis Mitigation Sub-directorate, under the Directorate of Prevention and Handling of Strategic Issues, brought a student delegation that joined the planting of associated mangrove species, a waterbird release and mangrove conservation education. The Governor of East Java gave the Directorate a certificate of appreciation for its contribution to mangrove conservation in the province.

A CLEAN COAST

On 30 August 2026 the GREENTY community of the S1 Geography Education programme in the Faculty of Social and Political Sciences held the Greenty Action Day beach clean-up for coastal environmental protection. Participants first learned about types of waste and waste management.

WITH GOVERNMENT, AND IN 2025

The Faculty of Food Security joined a stakeholder briefing on managing marine conservation areas on 3 December 2025 and, on 25 July 2026, its Deputy Dean for Academic Affairs was honorary juror at the Surabaya city research agency's festival at Kebun Raya Mangrove 3.0. UNESA's 2025 impact report also records that UNESA took part in the East Java Mangrove Festival in 2025 and ran a programme to protect and manage a mangrove ecosystem, which it says keeps the coast from abrasion and preserves the habitat of many species.

MANGROVE AND COAST EVENTS, 2025 AND 2026

DATE	EVENT	PLACE	UNESA TEAM
3 Dec 2025	Briefing on managing and using marine conservation areas	Surabaya	Faculty of Food Security
5 Feb 2026	Mangrove planting and coastal clean-up, UNESA-Equity International Summer Course	Taman Mangrove Wonorejo, Surabaya	Faculty of Medicine, S1 Aquaculture
26 Apr 2026	Eco Fun Mangrove Day: 100 mangroves planted	Wonorejo Mangrove Ecotourism Area, Surabaya	Geography Study Club
25 Jul 2026	Research and Innovation Festival, honorary juror	Kebun Raya Mangrove 3.0, Surabaya	Faculty of Food Security
29 Jul 2026	10th East Java Mangrove Festival	Panduri Beach, Jenu, Tuban	Crisis Mitigation Sub-directorate
30 Aug 2026	Greenty Action Day beach clean-up	Coastal area	GREENTY, S1 Geography Education

RESEARCH AND MONITORING

Studying fish, shellfish and mangrove life in order to protect them

UNESA funds and carries out research on the fish, clams and mangroves of East Java's waters, and its students use mangrove snails to read the health of the water.

11
snail species from four families recorded in Surabaya's Kebun Raya Mangrove, used as indicators of water quality

2
studies on fish and clams funded by UNESA's research institute in March 2026

2nd
place for the snail survey at the Research and Innovation Festival 2026, 25 July 2026

2nd
place in the national paper competition KONSURV 2026 for a mangrove strategy for Tambak Wedi, 10 June 2026

AN ICONIC LAKE FISH

In March 2026 UNESA's research and community service institute (LPPM) funded an S1 Aquaculture lecturer, under its Collaborative Basic Research scheme, to study the diet shift and trophic plasticity of Tor tambra, an iconic species of Telaga Banyu Biru, Pasuruan. It uses environmental DNA metabarcoding to build a model for breeding and sustainable conservation of the fish.

CLAMS OF THE TUBAN COAST

In the same round LPPM funded the Aquaculture programme coordinator to study the biology and ecology of the clam Ciboticola sp., which lives on Anadara clams at Pantai Boom, Tuban, to support the sustainable management of that coastal resource. In April 2026 she also won national research funding for a study to identify, classify and map the edible bivalves of Madura Island.

SNAILS THAT REPORT ON THE WATER

A team of S1 Aquaculture and S1 Biology Education students surveyed the mangrove of the Kebun Raya Mangrove Surabaya and identified 11 gastropod species from four families, among them Cassidula aurisfelis, Cerithidea obtusa and Nerita violacea. The snails break down organic matter and are sensitive to changes in water quality, which makes them natural bioindicators of the health of coastal ecosystems. The students presented the work at the Surabaya city research agency's Research and Innovation Festival 2026 on 25 July 2026, where it won second place in the non-product research category.

THE MANGROVE OF TAMBAK WEDI

A team of Aquaculture and Digital Agribusiness students went into the coastal mud of Tambak Wedi, Kenjeran, Surabaya, and listened to local fishers. Their strategy, COASTAL-DPSIR, analyses the pressures on the urban mangrove and proposes an integrated way to manage it. It aims to protect the mangrove from abrasion and erosion and to restore nursery habitat for marine life. UNESA's 2025 impact report adds that UNESA ran 14 environmental rehabilitation and restoration programmes in 2025, among them mangrove ecosystem restoration.

RESEARCH AND MONITORING OF AQUATIC ECOSYSTEMS, 2026

DATE	WORK	SITE	UNESA TEAM
Mar 2026	LPPM funds a study of Tor tambra diet and conservation by environmental DNA	Telaga Banyu Biru, Pasuruan	S1 Aquaculture
Mar 2026	LPPM funds a study of clams living on Anadara clams	Pantai Boom, Tuban	S1 Aquaculture
Apr 2026	National funding to map the edible bivalves of an island	Madura Island	S1 Aquaculture
7 Jun 2026	Monitoring of the bozem: ecosystem, cleanliness, plants and animals	Campus bozem, Surabaya	Eco Campus team, S1 Biology
10 Jun 2026	COASTAL-DPSIR mangrove strategy wins second place nationally	Tambak Wedi, Kenjeran, Surabaya	Aquaculture and Digital Agribusiness students
25 Jul 2026	Survey of 11 mangrove snail species as water-quality indicators	Kebun Raya Mangrove Surabaya	S1 Aquaculture, S1 Biology Education students

TECHNOLOGY AND INDUSTRY

Fish-farming technology that keeps waste out of the water

UNESA researches, teaches and demonstrates aquaculture methods that limit water use and pollution, and it brings industry practitioners and student inventors into the work.

98%
survival of red tilapia in a 2026 UNESA bioflok study

7
months of rearing within optimal water quality, with only 0 to 10 percent water exchange a day

95%+
fish survival in the simplified biofloc system presented at the January 2026 Aquaculture Fest

1
student marine microplastic project, MARICYCLE, selected for 2026 national funding

A 2026 STUDY OF BIOFLOK CULTURE

On 5 August 2026 the Faculty of Food Security published an account of a 2026 UNESA study of bioflok culture of red tilapia, reported in the Egyptian Journal of Aquatic Biology and Fisheries. In a bioflok system, bacteria such as Bacillus sp. and Lactobacillus sp. turn organic nitrogen waste into protein-rich biomass that the fish eat. The ponds ran with almost no water exchange, and temperature, pH, dissolved oxygen, ammonia, nitrite and nitrate stayed within the optimal range for the whole seven months. At the best probiotic dose the fish grew faster than the control (1.34 against 1.25 percent a day), needed less feed (feed conversion ratio 2.38 against 2.50) and 98 percent survived. The author argues that farmers can raise output without opening new ponds that risk damaging coastal ecosystems such as mangroves.

ON THE AQUAFARM

The S1 Aquaculture programme applies bioflok and aquaponic culture on its AquaFarm, a field laboratory for teaching, research and community service. In February 2026 students prepared bioflok media for catfish: after preparing the pond, filling it and adding a carbon source at the correct carbon-to-nitrogen ratio, they added a probiotic bioflocculant so that flocs turn organic waste and feed residue into biomass the fish can eat again. The programme states that the system minimises water exchange and reduces pollution from culture waste. On 3 August 2026 the programme showed a visiting delegation of Universiti Malaya its aquaponic system, in which fish waste feeds the plants, and its bioflok units for tilapia and catfish.

PRACTITIONERS FROM INDUSTRY

In January 2026 the programme's first-anniversary Aquaculture Fest featured the founder of AquaBioFresh Indonesia, who presented biofloc technology as efficient, eco-friendly and sustainable. At the World Environment Day Aquaculture Fest in June 2026 a speaker from PT Alter Trade Indonesia and Konservasi Indonesia said that shrimp ponds must not damage mangrove areas, that waste water must not harm the environment outside the pond, and that pesticides and cyanide must be replaced by natural substances such as saponin or tuba root.

A STUDENT PROJECT ON MICROPLASTICS

A student team of UNESA's Campus 5 in Magetan passed the funding selection of the 2026 Student Creativity Program (PKM-VGK) of the Ministry of Higher Education, Science and Technology, announced in June 2026. Its project, MARICYCLE, proposes an integrated electrostatic and thermochemical system to process marine microplastic waste, and aims at restoring Indonesia's maritime ecosystems.



Aquaculture staff demonstrate culture techniques to visiting students and lecturers at the AquaFarm, Surabaya, 3 August 2026.

Learning with partners and winning recognition for marine science

The Aquaculture programme and the Faculty of Food Security exchanged knowledge with universities abroad and with Indonesia's fisheries faculties, and UNESA's lecturers and students won awards for work on aquatic life.

UNIVERSITIES ABROAD

On 5 February 2026 the Aquaculture programme hosted a principal research fellow of the Tropical Marine Science Institute at the National University of Singapore for a guest lecture on the taxonomy, morphology and economically important species of bivalves. On 21 April 2026 the Faculty of Food Security received an academic visit from King Mongkut's University of Technology Thonburi, Thailand, to start collaborative research on food security, fisheries and aquaculture technology, with joint research, staff and student exchange and joint publication. On 8 June 2026 a professor of Tohoku University, Japan, gave a visiting lecture.

A PARTNERSHIP WITH UNIVERSITY OF MALAYA

On 3 August 2026 the Aquaculture programme signed an Implementation Arrangement with University of Malaya, Malaysia, for student mobility, guest lectures and joint research. The signing was witnessed by the dean of the Faculty of Food Security, and was followed by a field visit to the programme's smart aquaculture systems and the start of inbound student mobility.

ACROSS INDONESIA

On 19 May 2026 the Faculty's Deputy Dean for Academic Affairs represented UNESA at the 2026 Indonesian Forum of Fisheries and Marine Higher Education Communication at Universitas Udayana, Bali, where fisheries deans from across the country discussed curriculum innovation and applied research for the fisheries and marine sector.

CERTIFIED AND AWARDED

In February 2026, 56 Aquaculture students completed the international Aquaculture Breeding and Genetics certification, run online by the Food and Agriculture Organization (FAO), which covers broodstock management, genetic selection, seed quality improvement and sustainable culture practice. On 29 June 2026 three Aquaculture lecturers won the Gold Award and the Best of Best Video Award at the International Innovative Science and Mathematics Education Festival (FISME) 2026 in Malaysia, organised by Universiti Teknologi Malaysia, for a video on an Ethno-STEM model of sustainable mussel farming.

MARINE SCIENCE PARTNERS AND AWARDS, 2026

DATE	ACTIVITY	WITH OR RESULT
Feb 2026	FAO online certification in aquaculture breeding and genetics	56 Aquaculture students certified
5 Feb 2026	Guest lecture on bivalves	National University of Singapore, Singapore
21 Apr 2026	Academic visit to start joint research	King Mongkut's University of Technology Thonburi, Thailand
19 May 2026	National forum of fisheries and marine higher education	Universitas Udayana and fisheries faculties, Indonesia
Jun 2026	National paper competition KONSURV 2026	Second place, mangrove strategy for Tambak Wedi (IPB University)
Jun 2026	Student Creativity Program PKM-VGK 2026	Funding for MARICYCLE, marine microplastic processing
8 Jun 2026	Visiting lecture	Tohoku University, Japan
29 Jun 2026	FISME 2026 video competition	Gold Award and Best of Best Video Award (Universiti Teknologi Malaysia)
3 Aug 2026	Implementation Arrangement for mobility and joint research	University of Malaya, Malaysia

SOURCES

The 41 documents behind this report

POLICY AND CAMPUS WATER

Universitas Negeri Surabaya (2026-04-14). Peraturan Rektor Universitas Negeri Surabaya Nomor 12 Tahun 2026 tentang Keselamatan, Kesehatan Kerja, dan Lingkungan Universitas Negeri Surabaya. https://jdih.unesa.ac.id/preview/dokumen/01186ad14c638abe22cda4d51865ea2e.pdf

EDUCATION FOR COMMUNITIES AND FISHER COMMUNITIES

S1 Akuakultur, Universitas Negeri Surabaya (2026-06-02). Tim Akuakultur UNESA Latih Warga Trepan Lamongan Teknologi Fermentasi dan Budidaya Perikanan Berkelanjutan. https://akuakultur.fkp.unesa.ac.id/post/tim-akuakultur-unesa-latih-warga-trepan-lamongan-teknologi-fermentasi-dan-budidaya-perikanan-berkelanjutan

S1 Manajemen Pendidikan, Universitas Negeri Surabaya (2026-05-26). Realisasikan Ormawa Berdampak, DPM FIP UNESA Loloa Pendanaan PPK Ormawa 2026 untuk Kembangkan Smart Maritime Community di Desa Ngemboh Gresik. https://mp.fip.unesa.ac.id/post/realisasikan-ormawa-berdampak-dpm-fip-unesa-loloa-pendanaan-ppk-ormawa-2026-untuk-kembangkan-smart-maritime-community-di-desa-ngemboh-gresik

S1 Manajemen Pendidikan, Universitas Negeri Surabaya (2026-06-17). PPK Ormawa DPM FIP Berdampak Wujudkan Ngemboh Smart Maritim Community, Perkuat Kemandirian Desa Maritim di Gresik. https://mp.fip.unesa.ac.id/post/ppk-ormawa-dpm-fip-berdampak-wujudkan-ngemboh-smart-maritim-community-perkuat-kemandirian-desa-maritim-di-gresik

S1 Manajemen Pendidikan, Universitas Negeri Surabaya (2026-06-17). Perkuat Sektor Maritim Pesisir, Longline Apung Dua Ekosistem Resmi Beroperasi di Desa Ngemboh. https://mp.fip.unesa.ac.id/post/perkuat-sektor-maritim-pesisir-longline-apung-dua-ekosistem-resmi-beroperasi-di-desa-ngemboh

MANGROVES AND COASTS

S1 Kebidanan, Universitas Negeri Surabaya (2026-02-13). Mahasiswi Kebidanan FK UNESA Ikuti International Summer Course 2026: Wujudkan Inovasi dan Komitmen terhadap SDGs. https://s1kebidanan.fk.unesa.ac.id/post/mahasiswi-kebidanan-fk-unesa-ikuti-international-summer-course-2026-wujudkan-inovasi-dan-komitmen-terhadap-sdgs

S1 Akuakultur, Universitas Negeri Surabaya (2026-02-18). Belajar, Berkolaborasi, dan Peduli Lingkungan: Cerita Mahasiswa mengikuti UNESA EQUITY SUMMER COURSE 2026. https://akuakultur.fkp.unesa.ac.id/post/belajar-berkolaborasi-dan-peduli-lingkungan-cerita-mahasiswa-mengikuti-unesa-equity-summer-course-2026

S1 Pendidikan Geografi, Universitas Negeri Surabaya (2026-04-26). Mahasiswa S1 Pendidikan Geografi Berkegiatan Eco Fun Mangrove Day. https://geo.fisipol.unesa.ac.id/post/mahasiswa-s1-pendidikan-geografi-berkegiatan-eco-fun-mangrove-day

Fakultas Ilmu Sosial dan Politik, Universitas Negeri Surabaya (2026-08-31). Peduli Ekosistem Pesisir, GREENTY FISIPOL UNESA Gelar Greenty Action Day 2026. https://fisipol.unesa.ac.id/post/peduli-ekosistem-pesisir-greenty-fisipol-unesa-gelar-greenty-action-day-2026

S1 Biologi, Universitas Negeri Surabaya (2026-06-08). Tim BSO Ecocampus Bersama Dosen Divisi KH Gelar Aksi Lingkungan dalam Peringatan Hari Lingkungan Hidup 2026. https://s1-biologi.fmipa.unesa.ac.id/post/tim-bso-ecocampus-bersama-dosen-divisi-kh-gelar-aksi-lingkungan-dalam-peringatan-hari-lingkungan-hidup-2026

S1 Biologi, Universitas Negeri Surabaya (2026-08-03). Tim BSO Ecocampus Biologi UNESA Sambut Mahasiswa Universiti Kebangsaan Malaysia. https://s1-biologi.fmipa.unesa.ac.id/post/tim-bso-ecocampus-biologi-unesa-sambut-mahasiswa-universiti-kebangsaan-malaysia

RESEARCH AND MONITORING

Fakultas Ketahanan Pangan, Universitas Negeri Surabaya (2026-06-10). Garda Muda Penjaga Pesisir: Inovasi Ekologis 'Tim Mental Baja' FKP UNESA Sabet Juara Nasional di Ajang KONSURV 2026 demi Kelestarian Hayati dan Kesejahteraan Masyarakat. https://fkp.unesa.ac.id/post/garda-muda-penjaga-pesisir-inovasi-ekologis-tim-mental-baja-fkp-unesa-sabet-juara-nasional-di-ajang-konsurv-2026-demi-kelestarian-hayati-dan-kesejahteraan-masyarakat

TECHNOLOGY AND INDUSTRY

S1 Akuakultur, Universitas Negeri Surabaya (2026-06-08). Prodi S1 Akuakultur FKP Unesa Gelar Aquaculture Fest Peringatan Hari Lingkungan Hidup. https://akuakultur.fkp.unesa.ac.id/post/prodi-s1-akuakultur-fkp-unesa-gelar-aquaculture-fest-peringatan-hari-lingkungan-hidup

SOURCES

continued

PARTNERS AND RECOGNITION

S1 Akuakultur, Universitas Negeri Surabaya (2025-06-30). Dukung SDGs 2, 4, dan 14, Prodi Akuakultur Gelar Pelatihan Budidaya Ikan Teknik Bioflok bagi Guru Biologi Madrasah Aliyah Jawa Timur untuk Membekalkan Ketahanan Pangan di Lingkungan Sekolah. https://akuakultur.fkp.unesa.ac.id/post/dukung-sdgs-2-4-dan-14-prodi-akuakultur-gelar-pelatihan-budidaya-ikan-teknik-bioflok-bagi-guru-biologi-madrasah-aliyah-jawa-timur-untuk-membekalkan-ketahanan-pangan-di-lingkungan-sekolah

S1 Akuakultur, Universitas Negeri Surabaya (2026-02-02). Kick Off New Semester, 56 Mahasiswa Akuakultur Sukses Raih Sertifikasi Internasional "Aquaculture Breeding and Genetics" dari Food and Agriculture Organization (FAO). https://akuakultur.fkp.unesa.ac.id/post/kick-off-new-semester-56-mahasiswa-akuakultur-sukses-raih-sertifikasi-internasional-aquaculture-breeding-and-genetics-dari-food-and-agriculture-organization-fao

S1 Akuakultur, Universitas Negeri Surabaya (2026-03-28). LPPM UNESA Hibahkan Pendanaan Penelitian Dasar Kolaborasi, Dosen Akuakultur UNESA Raih Kesempatan Riset Konservasi Ikonik Telaga Banyu Biru. https://akuakultur.fkp.unesa.ac.id/post/lppm-unesa-hibahkan-pendanaan-penelitian-dasar-kolaborasi-dosen-akuakultur-unesa-raih-kesempatan-riset-konservasi-ikonik-telaga-banyu-biru

S1 Akuakultur, Universitas Negeri Surabaya (2026-03-28). LPPM UNESA Hibahkan Penelitian Dasar Kolaborasi, Reni Ambarwati Teliti Ekologi Kerang Ektosimbion di Pantai Boom Tuban. https://akuakultur.fkp.unesa.ac.id/post/lppm-unesa-hibahkan-penelitian-dasar-kolaborasi-reni-ambarwati-teliti-ekologi-kerang-ektosimbion-di-pantai-boom-tuban

S1 Akuakultur, Universitas Negeri Surabaya (2026-05-26). Mahasiswa S1 Akuakultur FKP Unesa Teliti Sosial-Ekonomi dan Potensi Teripang yang Diperdagangkan di Surabaya. https://akuakultur.fkp.unesa.ac.id/post/mahasiswa-s1-akuakultur-fkp-unesa-teliti-sosial-ekonomi-dan-potensi-teripang-yang-diperdagangkan-di-surabaya

S1 Akuakultur, Universitas Negeri Surabaya (2026-05-26). Mahasiswa S1 Akuakultur FKP Unesa Eksplorasi Potensi Scyphozoa yang Diperdagangkan di Surabaya. https://akuakultur.fkp.unesa.ac.id/post/mahasiswa-s1-akuakultur-fkp-unesa-eksplorasi-potensi-scyphozoa-yang-diperdagangkan-di-surabaya

Fakultas Ketahanan Pangan, Universitas Negeri Surabaya (2026-02-05). Menembus Batas Samudra: FKP UNESA Hadirkan Pakar Dunia dari National University of Singapore untuk Kupas Potensi Ekonomi Bivalvia. https://fkp.unesa.ac.id/post/menembus-batas-samudra-fkp-unesa-hadirkan-pakar-dunia-dari-national-university-of-singapore-untuk-kupas-potensi-ekonomi-bivalvia

S1 Akuakultur, Universitas Negeri Surabaya (2026-04-21). Inisiasi Collaborative Research antara KMUTT Thailand dan Fakultas Ketahanan Pangan UNESA. https://akuakultur.fkp.unesa.ac.id/post/inisiasi-collaborative-research-antara-kmutt-thailand-dan-fakultas-ketahanan-pangan-unesa

S1 Akuakultur, Universitas Negeri Surabaya (2026-06-08). S1 Akuakultur FKP Unesa Gelar Visiting Lecturer Bersama Prof. Cheryl L. Ames dari Tohoku University Jepang. https://akuakultur.fkp.unesa.ac.id/post/s1-akuakultur-fkp-unesa-gelar-visiting-lecturer-bersama-prof-cheryl-l-ames-dari-tohoku-university-jepang

S1 Akuakultur, Universitas Negeri Surabaya (2026-08-04). Program Studi S1 Akuakultur FKP UNESA dan Department of Shariah and Economics, University of Malaya Tandatangani Implementation Arrangement (IA). https://akuakultur.fkp.unesa.ac.id/post/program-studi-s1-akuakultur-fkp-unesa-dan-department-of-shariah-and-economics-university-of-malaya-tandatangani-implementation-arrangement-ia

Fakultas Ketahanan Pangan, Universitas Negeri Surabaya (2026-05-19). Menjalin Jejaring Bahari Nasional: FKP UNESA Perkuat Ekosistem Akuakultur Berkelanjutan melalui Forum Dekan Perikanan dan Kelautan di Bali. https://fkp.unesa.ac.id/post/menjalin-jejaring-bahari-nasional-fkp-unesa-perkuat-ekosistem-akuakultur-berkelanjutan-melalui-forum-dekan-perikanan-dan-kelautan-di-bali

S1 Akuakultur, Universitas Negeri Surabaya (2026-06-29). Prestasi Gemilang! Dosen Akuakultur FKP UNESA Raih Gold Award dan Best of Best Video Competition di FISME 2026 Malaysia. https://akuakultur.fkp.unesa.ac.id/post/prestasi-gemilang-dosen-akuakultur-fkp-unesa-raih-gold-award-dan-best-of-best-video-competition-di-fisme-2026-malaysia

S1 Akuakultur, Universitas Negeri Surabaya (2026-06-15). Tim Mental Baja yang Terdiri dari Mahasiswa S1 Akuakultur dan S1 Agribisnis FKP UNESA Raih Juara 2 LKTIN KONSURV 2026 melalui Inovasi Pengelolaan Mangrove Berkelanjutan. https://akuakultur.fkp.unesa.ac.id/post/tim-mental-baja-yang-terdiri-dari-mahasiswa-s1-akuakultur-dan-s1-agribisnis-fkp-unesa-raih-juara-2-lktin-konsurv-2026-melalui-inovasi-pengelolaan-mangrove-berkelanjutan

Kampus 5 Unesa (2026-06-09). UNESA 5 Campus PKM-VGK Team Secures 2026 PKM Funding with Innovative Solution for Marine Microplastic Processing. https://kampusunesamagetan.unesa.ac.id/post/unesa-5-campus-pkm-vgk-team-secures-2026-pkm-funding-with-innovative-solution-for-marine-microplastic-processing

S1 Akuakultur, Universitas Negeri Surabaya (2026-05-04). Mahasiswa S1 Akuakultur FKP Unesa Raih Juara 5 di Indonesia Molly Show 2026. https://akuakultur.fkp.unesa.ac.id/post/mahasiswa-s1-akuakultur-fkp-unesa-raih-juara-5-di-indonesia-molly-show-2026

continued

OTHER SOURCES

S1 Akuakultur, Universitas Negeri Surabaya (2026-05-25). Prodi S1-Akuakultur FKP UNESA gelar pengabdian kepada masyarakat di Desa Trepan Lamongan dan tandatangani kerja sama melalui IA. https://akuakultur.fkp.unesa.ac.id/post/prodi-s1-akuakultur-fkp-unesa-gelar-pengabdian-kepada-masyarakat-di-desa-trepan-lamongan-dan-tandatangani-kerja-sama-melalui-ia

Fakultas Ketahanan Pangan, Universitas Negeri Surabaya (2025-12-23). Merajut harmoni alam: Langkah strategis FKP Unesa dalam konservasi perairan demi kedaulatan pangan. https://fkp.unesa.ac.id/post/merajut-harmoni-alam-langkah-strategis-fkp-unesa-dalam-konservasi-perairan-demi-kedaulatan-pangan

Fakultas Ketahanan Pangan, Universitas Negeri Surabaya (2026-07-25). Dari mangrove untuk kedaulatan bumi: Kiprah kepakaran FKP UNESA kawal inovasi berdampak bagi masyarakat dan lingkungan. https://fkp.unesa.ac.id/post/dari-mangrove-untuk-kedaulatan-bumi-kiprah-kepakaran-fkp-unesa-kawal-inovasi-berdampak-bagi-masyarakat-dan-lingkungan

Fakultas Psikologi, Universitas Negeri Surabaya (2026-07-30). Mahasiswa Fakultas Psikologi UNESA bersama SMCC berpartisipasi dalam Festival Mangrove Jawa Timur ke-10, perkuat komitmen pelestarian lingkungan. https://psikologi.unesa.ac.id/post/mahasiswa-fakultas-psikologi-unesa-bersama-smcc-berpartisipasi-dalam-festival-mangrove-jawa-timur-ke-10-perkuat-komitmen-pelestarian-lingkungan

Fakultas Ketahanan Pangan, Universitas Negeri Surabaya (2026-07-25). Menyingkap potensi gastropoda mangrove: Langkah inovatif akademisi muda Program Studi S1 Akuakultur FKP UNESA. https://fkp.unesa.ac.id/post/menyingkap-potensi-gastropoda-mangrove-langkah-inovatif-akademisi-muda-program-studi-s1-akuakultur-fkp-unesa-kawal-ekosistem-hijau-dan-kesejahteraan-masyarakat

S1 Akuakultur, Universitas Negeri Surabaya (2026-04-14). Dosen S1 Akuakultur FKP UNESA lolos pendanaan penelitian Kemdiktisaintek 2026. https://akuakultur.fkp.unesa.ac.id/post/dosen-s1-akuakultur-fkp-unesa-lolos-pendanaan-penelitian-kemdiktisaintek-2026

S1 Akuakultur, Universitas Negeri Surabaya (2026-08-03). Mahasiswa Akuakultur dan Pendidikan Biologi UNESA raih juara 2 Festival Riset dan Inovasi 2026. https://akuakultur.fkp.unesa.ac.id/post/mahasiswa-akuakultur-dan-pendidikan-biologi-unesa-raih-juara-2-festival-riset-dan-inovasi-2026

Fakultas Ketahanan Pangan, Universitas Negeri Surabaya (2026-08-05). Biofloc dan masa depan ketahanan pangan dari sumberdaya perairan: Belajar dari optimalisasi budidaya nila merah monoseks. https://fkp.unesa.ac.id/post/biofloc-dan-masa-depan-ketahanan-pangan-dari-sumberdaya-perairan-belajar-dari-optimalisasi-budidaya-nila-merah-monoseks

S1 Akuakultur, Universitas Negeri Surabaya (2026-01-19). Aquaculture Fest: Peringatan Dies Natalis ke-1 Prodi S1 Akuakultur FKP UNESA. https://akuakultur.fkp.unesa.ac.id/post/aquaculture-fest-peringatan-dies-natalis-ke-1-prodi-s1-akuakultur-fkp-unesa

S1 Akuakultur, Universitas Negeri Surabaya (2026-08-04). Field work: AquaFarm sharing session kenalkan inovasi smart aquaculture FKP UNESA kepada delegasi University of Malaya. https://akuakultur.fkp.unesa.ac.id/post/field-work-aquafarm-sharing-session-kenalkan-inovasi-smart-aquaculture-fkp-unesa-kepada-delegasi-university-of-malaya

S1 Akuakultur, Universitas Negeri Surabaya (2026-02-26). Mahasiswa S1 Akuakultur, Fakultas Ketahanan Pangan, Universitas Negeri Surabaya lakukan pemberian bioflokulan untuk persiapan media bioflok ikan lele. https://akuakultur.fkp.unesa.ac.id/post/mahasiswa-s1-akuakultur-fakultas-ketahanan-pangan-universitas-negeri-surabaya-lakukan-pemberian-bioflokulan-untuk-persiapan-media-bioflok-ikan-lele

TIMES Indonesia (2025-11-05). Dosen UNESA dan UNISLA kembangkan ecopreneurship melalui kolam ikan dan hidroponik. https://timesindonesia.co.id/indonesia-positif/563602/dosen-unesa-dan-unisla-kembangkan-ecopreneurship-melalui-kolam-ikan-dan-hidroponik

S1 Akuakultur, Universitas Negeri Surabaya (2026-05-11). Harmoni Ekosistem Perkotaan: Prodi S1 Akuakultur FKP UNESA Dorong Kemandirian Pangan Berkelanjutan melalui Inovasi Akuaponik Modern. https://akuakultur.fkp.unesa.ac.id/post/harmoni-ekosistem-perkotaan-prodi-s1-akuakultur-fkp-unesa-dorong-kemandirian-pangan-berkelanjutan-melalui-inovasi-akuaponik-modern

REPORT TEAM

This report reflects the collective contributions of units across UNESA. We gratefully acknowledge everyone who shared data, documents, and expertise, with particular thanks to the following team members for coordinating and curating the SDGs evidence:

WCU (WORLD CLASS UNIVERSITY) TEAM UNESA

01 Dr. Irena Yolanita Maureen, S.Pd., M.Sc.

02 Dini Aulia Cahya, S.Si., M.Biomed.

03 Elma Sakinatus Sajidah, S.Si., M.Si., Ph.D.

04 Aulia Putri Srie Wardani, S.Gz., M.Sc.

05 Ira Khairani Panjaitan, S.Psi., M.Ed.

06 Dr. Alfin Maulana, S.EI., M.SEI.

07 Muhammad Rizky Ramadhan, BBus., MITHM.

08 Eliza Farestiani, S.Si., M.Eng.

09 Mochammad Abdul Machfud, S.I.Kom., M.B.A.

10 Faris Abdi El Hakim, S.Kom., M.Tr.Kom.

11 Zerry Akbar Yudisetyo, S.H., LL.M.

12 Annisa Ridhatul Khatimah, S.IP., M.A.

13 I Gde Agung Sri Sidhimantra, S.Kom., M.Kom.

SDGS CENTER IT TEAM UNESA

01 Rudi, S.Kom., M.Pd.

02 Windy Chikita Cornia Putri, S.Kom., M.Kom.

03 Yoyok Prastyo, S.Kom., M.Kom.

04 Triyah Fatmawati, S.Kom.

05 Zulfia Lutfiani, S.Tr.S.I.B.

SDGs Center, Universitas Negeri Surabaya
sdgscenter.unesa.ac.id



About this report

UNESA's SDGs' Report on SDG 14, Life Below Water, covering activities in 2025 and 2026. It is one of seventeen reports, one for each SDG. The full evidence pages, with every source, are at sdgscenter.unesa.ac.id.