

The International University of Catalonia plays an essential role in protecting natural resources and promoting a sustainable environment. In this vein, we are presenting several initiatives linked to SDG 6: Clean Water and Sanitation, SDG 14: Life Below Water, and SDG 15: Life on Land, aimed at ensuring access to clean water, preserving marine biodiversity, and protecting terrestrial ecosystems.



## 1. ODS 6 Clean water and Sanitation

Goal 6: [Ensure access to water and sanitation for all](#)

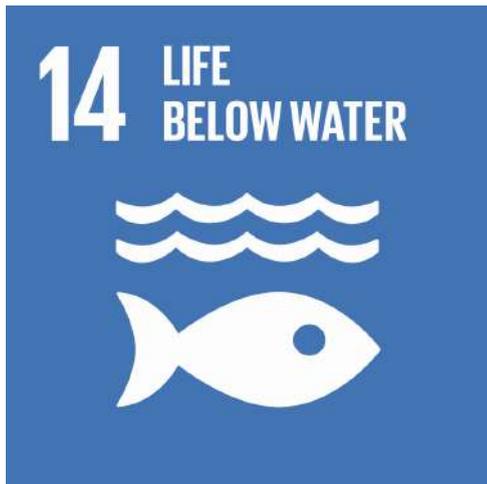
### Selected targets:

**6.1** By 2030, achieve universal and equitable access to safe and affordable drinking water for all

**6.6** By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

**6.a** By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

**6.b** Support and strengthen the participation of local communities in improving water and sanitation management



## ODS 14 Life Below Water

Goal 14: [Conserve and sustainably use the oceans, seas and marine resources](#)

### Selected targets:

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

## ODS 15 Life on Land

Goal 15: [Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss](#)

### Selected targets:

15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed

## 2. Investigation

Publications about [water](#), [life below water](#) and [life on land](#)

### 2.1 Publications about ODS 6 Clean water and sanitation

Review

[Reviewing the evidence on riparian community engagement: A conceptual framework of community-based river management](#)

[Vall-Casas, P.](#), [Juarez-Bourke, A.](#), [Garcia-Acosta, X.](#), [Benages-Albert, M.](#), [Germaine, M.A.](#)  
*Environmental Science and Policy*, 2024

Article • Open access

*Adicciones*, 2023

Book Chapter

[Biomaterials for Water Purification: Integrating Chlorella Vulgaris and Monoraphidium Conortum in Architectural Systems for the Biodegradation of Sulfamethoxazole from Wastewater](#)

[Abdallah, Y.K.](#), [Estévez, A.T.](#)

*Nourishing Tomorrow: Clean Engineering and Nature-friendly Living*, 2023

Book Chapter

[From Public Policies to Projects: Factors of Success and Diversity Through a Comparative Approach](#)

[Carré, C.](#), [Haghe, J.P.](#), [Vall-Casas, P.](#)

*River Restoration: Political, Social, and Economic Perspectives*, 2021

Article

[Promoting citizen-based river groups at sub-basin scale for multi-level river governance in the Barcelona Metropolitan Region](#)

[Vall-Casas, P.](#), [Benages-Albert, M.](#), [Garcia, X.G.](#), ...[Pavón, D.](#), [Ribas, A.](#)

*Local Environment*, 2021

Article

[Evaluating a web-based PPGIS for the rehabilitation of urban riparian corridors](#)

[Garcia, X.G.](#), [Gottwald, S.](#), [Benages-Albert, M.](#), ...[Ribas, A.](#), [Vall-Casas, P.](#)

*Applied Geography*, 2020

Review

[River rehabilitation: preference factors and public participation implications](#)

[Garcia, X.G.](#), [Benages-Albert, M.](#), [Buchecker, M.](#), [Vall-Casas, P.](#)

*Journal of Environmental Planning and Management*, 2020

Book Chapter

[Mission-Based Corporate Sustainability: The Aigües de Barcelona Model](#)

[Bastons, M.](#), [Benguría, R.](#), [Armengou, J.](#), [Rey, C.](#)

*CSR, Sustainability, Ethics and Governance*, 2020

Article • *Open access*

[Community involvement in the implementation of sustainable urban drainage systems \(SUDSs\): The case of Bon Pastor, Barcelona](#)

[Carrquiry, A.N.](#), [Saurí, D.](#), [March, H.](#)

*Sustainability (Switzerland)*, 2020

Article

[From metropolitan rivers to civic corridors: assessing the evolution of the suburban landscape](#)

[Vall-Casas, P.](#), [Benages-Albert, M.](#), [Elinbaum, P.](#), ...[Mendoza-Arroyo, C.](#), [Cuéllar, A.](#)

*Landscape Research*, 2019

Article • *Open access*

[Marangoni stress induced by free-surface for pressure reduction in reverse osmosis](#)  
[Arias, F.J.](#)

*Desalination*, 2018

Book Chapter

[The Evolution of Flooding Resilience: The Case of Barcelona](#)

[Favaro, A.](#), [Chelleri, L.](#)

*Smart, Resilient and Transition Cities: Emerging Approaches and Tools for A Climate-Sensitive Urban Development*, 2018

Article

[Public participation GIS for assessing landscape values and improvement preferences in urban stream corridors](#)

[Garcia, X.G.](#), [Benages-Albert, M.](#), [Pavón, D.](#), ...[Garcia-Aymerich, J.M.](#), [Vall-Casas, P.](#)

*Applied Geography*, 2017

Article • *Open access*

[Fragmented landscapes of water supply in suburban Hanoi](#)

[Wright-Contreras, L.](#), [March, H.](#), [Schramm, S.](#)

*Habitat International*, 2017

Article

[Mass tourism and water efficiency in the hotel industry: A case study](#)

[Gabarda-Mallorquí, A.](#), [Garcia, X.G.](#), [Ribas, A.](#)

*International Journal of Hospitality Management*, 2017

Note

[Placing ecosystem services at the heart of urban water systems management](#)

[Garcia, X.G.](#), [Barceló, D.À.](#), [Comas, J.](#), ...[Page, T.J.](#), [Acuña, V.](#)

*Science of the Total Environment*, 2016

Article • *Open access*

[Revisiting the appropriation of space in metropolitan river corridors](#)

[Benages-Albert, M.](#), [Di Masso Tarditi, A.](#), [López, S.P.](#), [Pol, E.](#), [Vall-Casas, P.](#)

*Journal of Environmental Psychology*, 2015

Article

[Pilot in vivo image spectro-photometric evaluation of optical properties of pure enamel and enamel-dentin complex](#)

[Ardu, S.](#), [Feilzer, A.J.](#), [Braut, V.](#), ...[Mayoral, J.R.](#), [Krejci, I.](#)

*Dental Materials*, 2010

## 2.2 Publications about ODS 14 Life below water

Article • *Open access*

[Efficient Hydroxyapatite Extraction from Salmon Bone Waste: An Improved Lab-Scaled Physico-Chemico-Biological Process](#)

[Muñoz, F.T., Haidar, Z.S., Puigdollers, A., ...Balcells, M.F., García, M.J.](#)

*Molecules*, 2024

Article • *Open access*

[THE COASTAL LAW AND THE \(NEW\) REGIONAL POWERS FOR THE MANAGEMENT OF THE STATE MARITIME-TERRESTRIAL PUBLIC DOMAIN | LA LEY DE COSTAS Y LAS \(NUEVAS\) COMPETENCIAS AUTONÓMICAS DE GESTIÓN DEL DOMINIO PÚBLICO MARÍTIMO-TERRESTRE ESTATAL](#)

[de San Román, R.E.](#)

*Revista General De Derecho Administrativo*, 2024

Article

[Ecological Restoration of a Coastal Wetland at a Mass Tourism Destination. Will the Recreational Value Increase or Decrease?](#)

[Pueyo, J., Garcia, X.G., Ribas, A., Fruquell, R.M.](#)

*Ecological Economics*, 2018

Book Chapter

[The Evolution of Flooding Resilience: The Case of Barcelona](#)

[Favaro, A., Chelleri, L.](#)

*Smart, Resilient and Transition Cities: Emerging Approaches and Tools for A Climate-Sensitive Urban Development*, 2018

Article • *Open access*

[The geography of the alzheimer's disease mortality in spain: Should we focus on industrial pollutants prevention?](#)

[Martínez-Solanas, É., Vergara-Duarte, M., Ortega, M., ...Benach, J., Pérez, G.](#)

*Healthcare (Switzerland)*, 2017

## 2.3 Publications about ODS 15 Life on land

Review

Article

[Bridging the gender gap in powered two-wheeler mobility: Proposals from Barcelona](#)

[Diez, F.P., Sinca, J.C., Vallès, D.R., Campos Cacheda, J.M.](#)

*Journal of Transport Geography*, 2025

Article • *Open access*

["Eyes on the Street" as a Conditioning Factor for Street Safety Comprehension: Quito as a Case Study](#)

[Vidal-Domper, N., Herrero-Olarte, S., Ramos, G., Benages-Albert, M.](#)

*Buildings*, 2025

Article • *Open access*

[The Nexus of Morphology and Sustainable Urban Form Parameters as a Common Basis for Evaluating Sustainability in Urban Forms](#)

[Mobaraki, A., Nikoofam, M., Mobaraki, B.](#)

*Sustainability Switzerland*, 2025

Article

[Evolving life experiences and underlying psychological drivers throughout life stages of environmental volunteers](#)

[Benages-Albert, M., Vidal, T., Pol, E., Vall-Casas, P.](#)

*Voluntary Sector Review*, 2025

Article • *Open access*

[Forgotten Industrial Heritage: The Cement Factory from La Granja d'Escarp](#)

[Ramírez-Casas, J., Gómez-Val, R., Buill, F., González-Sánchez, B., Navarro, A.](#)

*Buildings*, 2025

Article • *Open access*

[Stored collections of museums: an overview of how visible storage makes them accessible](#)

[Corona, L.](#)

*Collection and Curation*, 2025

Article

[Healthy cities: a visual conceptual framework for moving health knowledge into urban planning practice](#)

[Hoverter Callejas, A.G., Sebag, G., Vall-Casas, P.](#)

*Cities and Health*, 2025

Book Chapter

[Architectural Styles for Urban Sustainability: North Korean Architecture and Its Eurasian Influences](#)

[Prokopljević, J.](#)

*Pursuing Sustainable Urban Development in North Korea*, 2025

Article

[Whose city? colonial histories, urban governance, and the contestation of space in Kuala Lumpur](#)

[Mior, F.A.](#)

*International Planning Studies*, 2025

Article • *Open access*

[Heat Recovery Units in Passivhaus Housing on the Spanish Mediterranean Coast: Energy Efficiency and Return on Investment](#)

[Echarri-Iribarren, V., Roviras-Miñana, J., Gómez-Val, R.](#)

*Buildings*, 2024

[Reviewing the evidence on riparian community engagement: A conceptual framework of community-based river management](#)

[Vall-Casas, P., Juarez-Bourke, A., Garcia-Acosta, X., Benages-Albert, M., Germaine, M.A.](#)

*Environmental Science and Policy*, 2024

Article • *Open access*

[3D-Printed Bioreceptive Tiles of Reaction–Diffusion \(Gierer–Meinhardt Model\) for Multi-Scale Algal Strains' Passive Immobilization](#)

[Abdallah, Y.K.](#), [Estévez, A.T.](#)

*Buildings*, 2023

Book Chapter

[From Public Policies to Projects: Factors of Success and Diversity Through a Comparative Approach](#)

[Carré, C.](#), [Haghe, J.P.](#), [Vall-Casas, P.](#)

*River Restoration: Political, Social, and Economic Perspectives*, 2021

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[Promoting citizen-based river groups at sub-basin scale for multi-level river governance in the Barcelona Metropolitan Region](#)

[Vall-Casas, P.](#), [Benages-Albert, M.](#), [Garcia, X.G.](#), ...[Pavón, D.](#), [Ribas, A.](#)

*Local Environment*, 2021

Article

[From metropolitan rivers to civic corridors: assessing the evolution of the suburban landscape](#)

[Vall-Casas, P.](#), [Benages-Albert, M.](#), [Elinbaum, P.](#), ...[Mendoza-Arroyo, C.](#), [Cuéllar, A.](#)

*Landscape Research*, 2019

Article

[Ecological Restoration of a Coastal Wetland at a Mass Tourism Destination. Will the Recreational Value Increase or Decrease?](#)

[Pueyo, J.](#), [Garcia, X.G.](#), [Ribas, A.](#), [Fraguell, R.M.](#)

*Ecological Economics*, 2018

Conference Paper

[Innovation and entrepreneurship: Successful experiences in Brazil and Peru](#)

[Barcellos-Paula, L.](#), [Alvares, D.F.](#), [De Castro Rezende, A.](#)

*Proceedings of the European Conference on Innovation and Entrepreneurship, ECIE*, 2018

Conference Paper

[Is Connectivity a Desirable Property in Urban Resilience Assessments?](#)

[Olazabal, M.](#), [Chelleri, L.](#), [Sharifi, A.](#)

*Lecture Notes in Energy*, 2018

Article

[Human Habitat, Space and Place](#)

[Bastons, M.](#), [Armengou, J.](#)

*Journal of Agricultural and Environmental Ethics*, 2016

Article • *Open access*

[Christian monastic lands as protected landscapes and community conserved areas: An overview](#)

[Mallarach, J.M.](#), [Corcó Juvirá, J.](#), [Papayannis, T.](#)

*Parks*, 2016

Article • *Open access*

Conference Paper

[Christian monastic communities living in harmony with the environment: An overview of positive trends and best practices](#)

[Mallarach, J.M.](#), [Corcó Juvirá, J.](#), [Papayannis, T.](#)

*Studia Monastica*, 2014

Article

[Time-delayed predator-prey and competition wavefronts. Theory and comparison to experimental observations](#)

[Ortega-Cejas, V.](#), [Fort, J.](#), [Méndez, V.](#)

*Physica A: Statistical Mechanics and its Applications*, 2006

## **2.4 Evolving life experiences and underlying psychological drivers throughout life stages of environmental volunteers**

Marta Benages and Pere Vall, professors of the Architecture Degree at our university, are researching in this [article](#) How connections with nature evolve over time among volunteers from a citizen group focused on a river in the Barcelona metropolitan area. Through qualitative interviews with 25 members, we identify significant experiences that shape and reinforce this connection, driven by psychological factors oriented toward others, toward the place, and toward the self. Over time, these experiences transform the connection from unconscious to conscious, strengthening it to generate place attachment and moral commitment. This shift in focus, from initial motivations to a full understanding of the connection, offers keys to fostering self-management among citizen groups in collaborative environmental governance.

## **2.5 Alternative models to animal testing**

### **Ethical control of animal experimentation**



Laboratory for the practice of the subject Alternative Models to Animal Experimentation.

On May 9, 2011, the Executive Committee of the Governing Council approved the creation of the Research Ethics Committee, which ensures that all research conducted at UIC Barcelona is ethical and respects institutional values and the UIC Barcelona Code of Good Scientific Practice.

Decree 214/1997 of the Government of the Generalitat of Catalonia regulates the use of animals for experimentation and other scientific purposes, and all researchers must comply with it.

This decree is followed in the course Alternative Models to Animal Experimentation in the Bachelor's Degree in Biomedical Sciences.

## 3. Education

### 3.1 UIC Barcelona's Strategic sustainability and social commitment plan 2023-2026

We would like to highlight point 4 of our UIC Barcelona Strategic Plan for Sustainability and Social Commitment 2023-2026.

4. *"Be aware that measures to reduce and adapt to problems such as climate change, loss of biodiversity or forced emigration do not depend solely on technical or scientific solutions, but above all on values and ethical attitudes that inspire a change of habits. Therefore, the UIC Barcelona educational community must promote and adopt habits and values promoting sustainability and social commitment in all areas of university life, thus making it easier for students to acquire them throughout their learning, and for staff to be examples for this commitment."*



Taller Transversal de Sostenibilitat  
13a edició

**Aigua per a un món sostenible.  
Aigua i canvi climàtic.**

25 de novembre de 2021

Campus Barcelona  
Immaculada, 22. 08017 Barcelona  
Aula Magna i Passeig de la Fontana

10:00 - 11:00 h

Taller introductori. **Problemes i solucions al voltant de l'aigua sostenible de l'Espanya del segle XXI**

Marçal Ripoll, Director General d'Àrea de Gestió, Incent  
Sandra Puig, Mòdul per a le Tècnici d'Ecologia, Espanya

Mòdul: Carmen Mendicuti, Vicedegana de le School of Architecture de UIC Barcelona

11:00 h - 12:30 h

Taller introductori científic: **"Aigua per un món sostenible."**  
Espai comunitari de l'Aula Magna i passeig de la Fontana

Universitat Internacional de Catalunya  
Oficina de Cooperació i Desenvolupament Sostenible

uic.es/tallertransversal

### 3.2 The thirteenth Cross-Disciplinary Sustainability Workshop welcomes more than 200 students to analyse the relationship between water and climate change.

On November 25, 2022, the [thirteenth edition of the Transversal Sustainability Workshop "Water for a Sustainable World."](#) The objective of this workshop was to foster

interdisciplinary reflection on the sustainable use of water, analyzing the relationship between this and the care of the planet, addressing objectives 6, 13, and 17 of the United Nations Sustainable Development Goals (SDGs). Through the [presentation of projects](#) by students and listening and dialogue with experts from different disciplines, reflection was held on specific problems related to water and climate action, and students presented proposals for their resolution from the perspective of their degree.

### 3.3 The 2030 Agenda SDG Awards for TFG and TFM

In the [the first edition of the 2030 Agenda SDG Awards for TFG and TFM](#) Our university awarded the Master's Final Project of student Özge Gönügür, entitled "Future Applications of ELMS (Engineered Living Materials) in Architecture", which deals with biointegrated architecture, and investigates how living cell materials from algae can be useful in our built environment.



In the [second edition of these awards](#), student Judith Miranda was awarded for her Final Degree Project "[DROPLET: Sustainable Approaches for Fluorine-free Omniphobic Coatings](#)".

His final project basically focused on ways to replace fluorinated components in omniphobic coatings. Fluorinated components were banned by the [European Chemicals Agency \(ECHA\)](#). The end of the fluoride phase is expected to be reached by 2023, as they are highly toxic, persistent, and bioaccumulative. This means that when we dispose of products with these types of coatings and they degrade, the fluorinated components actually accumulate in aquifers and the soil substrate, contaminating them. There is no metabolic pathway that degrades these types of products, so they end up being stored in the organs responsible for filtering water and food in our bodies—the liver and kidneys—causing an impact that is currently being studied but is being linked to chronic inflammation and other physiological alterations.

In other words, the structural integrity of the fluorinated components used for homophobic coatings is not altered and can persist in nature, indefinitely contaminating both the soil and the water reserves that supply us, such as microplastics. In his project, he sought sustainable alternatives to replace these fluorinated components, so his strategy focuses on mitigating the impact on the ecosystem and stopping the contamination of aquifers.

### 3.4 UIC Barcelona's active mobility and healthy habits event

[UIC Barcelona's active mobility and healthy habits event](#), which took place on Friday, May 27, 2022, to celebrate World Nutrition Day. This day on active mobility and healthy habits aims to promote, through workshops, presentations, and conferences, the use of bicycles as a sustainable means of transport and healthy eating habits to take care of individual and planetary health. There was the **Organic farming workshop organized by the [Ortiga Cooperative](#)** and **Andreu Gutiérrez, professor of the Faculty of Educational Sciences, offered a visit to the University's organic farming garden.**



### 3.5 Biodiversity: Educational Garden





Figure 1. Greenhouse.  
(Universitat Internacional Catalunya, Spain).



Figure 2. Interior of the DOMO UIC greenhouse.



Figure 3. Organic seeds used for the organic garden at UIC Barcelona

Generalitat de Catalunya  
Consell Català de la Producció Agrària Ecològica

**CERTIFICAT DE CONFORMITAT**

Document justificatiu per a l'operador conforme a l'article 29, apartat 1, del Reglament (CE) nº 834/2007

Número de document: MA0210152	Autoritat de control:
Nom i adreça de l'operador: PLANTERS CASAS, S.L. CTRA.ACC.COSTA BRAVA B-482 KM 2,5/MP-249 08389 PALAFOLLS	Consell Català de la Producció Agrària Ecològica C/ del Doctor Rioux, 80 3a 08017 Barcelona Codi d'autorització de control: ES-ECO-018-CT

Operador inscrit amb el número CT 001102 PE en el Registre d'operadors del Consell Català de la Producció Agrària Ecològica en la seva secció:

Empreses agràries de producció  
Empreses elaboradores

Activitats certificades:

PRODUCCIO VO COMERCIALIZACIO DE PLANTER

Productes certificats:

**Producció Vegetal**

**EN AGRICULTURA ECOLÒGICA**

LLAVORS I VIVERS

**SENSE QUALIFICACIÓ**

LLAVORS I VIVERS

**Productes transformats**

**EN AGRICULTURA ECOLÒGICA >95%**

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CARBASSA	CARBASSO
CARXOFA	CEBA
CIBULET	COCCOMBRE
COL	COL-IRAVE
COLIFLOR	CORIANDE
ENCIAM	ESCAROLA
ESPINAC	ESPÀRREC
FAVES	FONOLL
JULVERT	MADUIXA
MELÓ	MIZUNA
MONGIETA	MOSTASSA
PASTANAGA	PIBROT
PIBROT	PIBROT
RENOLETXA	ROCULA
SINDRIA	TOMAGUET

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opae@opae.cat - www.opae.cat

Pàgina 1 de 2

ENAC

Generalitat de Catalunya  
Consell Català de la Producció Agrària Ecològica

**CERTIFICAT DE CONFORMITAT**

Període de validesa: Del 31/12/2023 al 30/06/2025

Data de control: 17/11/2021

El present document ha estat expedat sobre la base de l'article 29, apartat 1, del Reglament (CE) nº 834/2007 i del Reglament (CE) nº 889/2008. L'operador declarat ha sotmès les seves activitats a control i controlat els requisits establerts al present reglament.

Marta Valls Petit  
Directora tècnica

Per autorització del president del COPAE Resolució de 29 d'octubre de 2015

Consell Català de la Producció Agrària Ecològica

Barcelona, 31 de Desembre de 2021

Les parcel·les i instal·lacions en relació amb la resolució aneexa a partir de l'informe d'inspecció núm.: MA0210152

El present certificat de conformitat està subjecte a possibles modificacions. La validesa del certificat de conformitat pot continuar veient afectada si el web del COPAE (www.opae.cat)

Aquest document substitueix i anul·la a qualsevol altre emès amb anterioritat a la data de la signatura del present document.

Figure 4. Organic Agricultural Production Certificates used for the organic garden at UIC Barcelona, Sant Cugat Campus.



Figure 5. Students carrying out activities from the Experimental Sciences II program.

The Degree in Education includes an educational garden that highlights the importance of plant conservation.

In 2021, a DOMO greenhouse was inaugurated to promote Natural Sciences teaching. The greenhouse's design is aesthetically and conceptually innovative, as it meets all technical parameters and requirements for ventilation and lighting, creating an artificial and controlled interior atmosphere that will shorten the plants' vegetative cycles and improve crop quality. It serves as a learning space for students to develop their transversal and specific skills in subjects such as Childhood, Health and Nutrition, and Teaching and Learning of Experimental Sciences (2).

The facility not only allows for lectures, but also allows students to present practical projects and work in collaborative groups. At the same time, the space can be used for students to put their professional skills into practice by developing and preparing workshops for children, aimed at students from schools near the Sant Cugat Campus. Following this incredible initiative, the activities planned at the DOMO are part of the Experimental Sciences II program, which includes the study of the plant kingdom. It all begins with the construction of a garden, which is the central theme of the learning process and allows for the development of the plant life cycle, environmental conditions, irrigation, types of substrates, pest and disease control, etc.

The activities are carried out in practical sessions, with each session focusing on different types of plants and the parts that are commonly consumed. For example, lettuce, spinach, and chard are vegetables that allow students to focus on the leaf, its internal structure, the process of photosynthesis, and the different types of leaves. Working with plants for human consumption also serves to highlight the importance of food safety. Therefore, the actions carried out in the garden are aimed at ensuring that the material used is certified organic: seeds, seedlings, and substrate (3).

During the 2021-2022 academic year, work was done to obtain organic agricultural production certification. This certificate guarantees that products have been produced or processed according to organic farming standards and that they have been subject to control throughout the entire production, processing, packaging, and marketing process. This product was developed at the UIC Barcelona DOMO, Sant Cugat campus (4).

This material is guaranteed not to have been subjected to toxic and aggressive chemical treatments suitable for human consumption. In addition, natural products such as nettle slurry and garlic concentrate have been developed for pest and disease control, all of them organic and easily degradable. Their presence in the substrate or irrigation water is very brief and does not generate any polluting residue. The plants grown are: tomato, pepper, cucumber, carrot, radish, beans, chickpeas, lentils, beets, cauliflower, spinach, lettuce, turnips, chard, onions, and aromatic plants (5).

### **3.5 “Kigumi”, winning project of the Vertical Architecture Workshop to protect Barcelona's beaches from coastal erosion**

The Vertical Workshop is an annual academic activity organised by UIC Barcelona that marks the start of the academic year with an intensive group exercise focused on architectural practice, innovation and sustainability. This workshop reaffirms the university's commitment to training architects capable of responding to the challenges of the 21st century, promoting innovation, creativity, sustainability and practical experimentation.

[‘Kigumi’ was the winning project of the 2024 Vertical Architecture Workshop](#). The project stands out for its sensitivity to the environmental issues affecting Barcelona's coastline and beaches, as it addresses coastal erosion and offers creative, innovative and sustainable solutions.

Specifically, ‘Kigumi’ was created in response to the serious loss of surface area that Barcelona's beaches have experienced over the last 14 years. With a reduction of approximately 800,000 cubic metres of sand, equivalent to 30% of the volume of Camp Nou, erosion has become one of the greatest threats to the Catalan capital's coastline. In this regard, the students have designed the shelter with the aim of mitigating this problem, proposing an innovative and functional structure.

## **4. Elimination of plastics**

The Barcelona Campus implemented a plastic-free cafeteria service, offering water jugs to reduce the purchase of plastic water bottles. This initiative was accompanied by a small discount on the lunch menu if the menu option without bottled water was selected.

### **Plastic bottle**

The University's Communications Department created an awareness-raising campaign with the slogan "A plastic bottle? Think about it!" to encourage members of the university community to use the new water jugs.



Along these same lines, the corresponding measures were initiated to eliminate plastic bottles at the University's institutional events.

The cafeteria service, Eurest, the company contracted for the catering, in agreement with UIC Barcelona, opted to eliminate single-use disposable materials (cups, cutlery) and use more sustainable options such as napkins, recycled paper tablecloths, etc.

New water fountains were installed in the Barcelona campus cafeteria.

Cloth bags, which are reused instead of plastic, are used to send packages between campuses, reducing plastic bag consumption.

## 5. Water

### 5.1 Water consumption at the university

Water consumption at the Barcelona Campus in 2022:

- Campus Iradier: **6.683,00 m3**
- Campus Terré: **824 m3**

Irrigation consumption is considered to be the following:

- Campus Iradier: During July and August, irrigation consumption averages 68%. The average for the remaining months is 24%. Total **irrigation** consumption is: **2.278,00 m3**.
- Campus Terré: is 19.4%. Total **irrigation** consumption is: **158,54 m3**.

## 5.2 Measures against drought



During the 2023-2024 school year, we experienced a severe drought in Catalonia, with water reserves below 16%. The Catalan Water Agency implemented a [restriction plan](#), which also affected the university.

The objective of this plan was to mitigate the effects of the crisis and guarantee the water supply as much as possible. Therefore, **greater awareness and responsibility than ever was called for regarding the use of water in the University's restrooms and laboratories.**

We are a sustainable university and since April of last year we have been applying all [the corresponding measures](#), which we comply with not only by regulation, but also by conviction.