Hello $[UD:FIRST_NAME|]$

EDITORIAL BY ISABELLE GATTIN, CHAIR HOLDER

Summer 2026: A mirror of our vulnerabilities—what if the answer lay right under our feet?



The summer of 2026 will be remembered as the turning point. In France, a historic drought and repeated heat waves dealt a crushing blow to our agriculture. Corn crops suffered from this extreme water stress at the crucial stage of flowering, which severely disrupted the reproductive cycle and caused grain abortion (Kane et al., 2021). The 2026 growing season is shaping up to be a particularly difficult year for the French corn industry. With a grain corn yield of approximately 70.3 quintals per hectare (q/ha), the crop has seen a year-over-year yield decline of 18.5% to 19%. When this sharp decline in yields is combined with the reduction in the area devoted to the crop (-19%), the country could see its lowest harvest volume since 1980 (Agreste, 2026). Similarly, silage corn used for feed is also experiencing a yield decline that could reach an average of 9.8 metric tons of dry matter per hectare (t DM/ha), representing a 24.2% decrease compared to 2025. This decline, coupled with the drop in grass production, has forced cattle and sheep farmers to begin distributing feed as early as June or July—more than a month and a half ahead of the normal schedule… Faced with this alarming situation, there is a strong temptation to simply look to the sky and demand more irrigation.

The situation in France is not unique. Declines in field crop production are also being seen in **Senegal** (corn and peanuts) and **Tunisia** (cereals), although precise figures are not yet available. As for tree crops, the **Colombian** Federation of Coffee Growers also forecasts a decline in 2026 production of about 9% compared to 2025. This is due to heavy rains early in the year and the arrival of El Niño, which caused severe soil drying.

The year 2026 shows us that climate risk is not just a matter of temperature or annual rainfall, but of the soil's water status. Thus, the true key to our resilience lies not above our heads, but right beneath our feet: in the health of our soils. Healthy soil is not merely an inert medium; it is a living sponge and the primary safeguard of food security in the face of climate crises (Ghaley et al., 2018). Scientific literature demonstrates that soil rich in organic matter actively protects crop yields during extreme droughts (Kane et al., 2021). Each 1% increase in the soil's organic matter content could store up to an additional 200,000 liters of water per hectare (Pellerin et al., 2021).

The physical mechanism behind this water retention has been elucidated at the nanoscale: carbohydrates produced by biological activity bind to the clay to retain water up to five times more effectively than bare mineral soil. These complex sugars prevent the collapse of the clay's nanopores during extreme droughts, maintaining micro-pockets of moisture that are essential for plants (Kelch et al., 2024).

Soil conservation is no longer just an environmental option—it is a strategic imperative. This is precisely the essence of the commitment of the **UNESCO Chair "Soils, Biodiversity, Future Generations,"** dedicated to soil conservation and restoration. The research, training, and fieldwork we conduct daily with our partners are now essential to guiding the transformation of agricultural practices and equipping regions to withstand climate shocks. Securing our agricultural production in the face of extreme weather events will depend not only on optimizing external water supplies, but also on our collective commitment to restoring the natural water retention capacity of this essential common good: the soil.

- Isabelle Gattin

HIGHLIGHT

Is robotics a driver of the green transition?

At a time when agriculture faces the dual challenge of food production and environmental conservation, the protection of natural resources - and soil in particular - has become a central issue. Soil degradation, the intensive use of chemical inputs, and the simplification of agricultural systems raise questions about the sustainability of current models. In this context, Mohammad Naim's research, conducted as part of the NINSAR project, explores the potential of agricultural robotics as a driver of the agroecological transition. His dissertation, titled "Agricultural Robotics in the Agroecological Transition: A Socioeconomic Analysis of Adoption Dynamics and Business Models," was defended on September 7, 2026.



Read the article The Conversation

WEBINAR: PLASTICS AND AGRICULTURAL SOILS

The Chair invites you to participate in its third webinar on the topic: Plastics in Agricultural Soils: Uses, Detection, Impacts, and Solutions.

October 29, 2026, from 11:00 a.m. to 12:00 p.m. (UTC+1 - Paris)
5:00 p.m to 6:00 p.m (UTC+8 - Manila)

UniLaSalle Rouen, **France**, and the Chair will engage in a discussion with their partner at LaSalle University in Manila, **Philippines.**

Guests:

- Edgar A. Vallar, Lecturer and Researcher, LaSalle University Manila (**Philippines**). *What if LIDAR could see what we cannot? Detection and characterization of the surface of plasma-treated plastics using a compact 405 nm laser diode Mie LIDAR system.*

- Jules Bellon, Research Engineer, UniLaSalle Rouen (**France**). *From evidence of compostability to operational decisions: a framework for evaluating biodegradable plastics in composting and anaerobic digestion.*

Webinar language: **English**

Suscribe to the webinar

SOILS FOR EUROPE CONFERENCE



Elsa Edynak, our chair coordinator, who holds a Ph.D. in public law with a specialization in international law, did us the honor of speaking on Monday, September 7, 2026, in Coimbra, Portugal, at the Soils for Europe conference. She presented on the topic: "Improving Soil Management in Europe: The Contribution of the Soil Monitoring Directive (from a Legal Perspective)." This event is dedicated to soil health and organized as part of the European initiative "A Soil Deal for Europe."

It brings together researchers, policymakers, land managers, living labs, and innovation stakeholders to share the latest scientific advances and concrete solutions for protecting and restoring soils in Europe.

A BIG THANK YOU FOR YOUR PARTICIPATION !

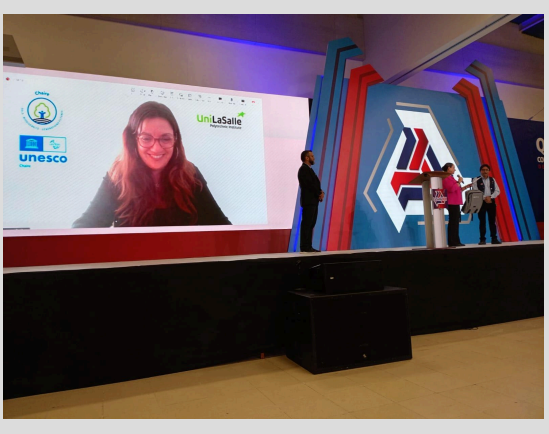
The chair successfully organized these first two webinars: during Nature Day, featuring Andrés Cruz Hernandez and Patricia Villsana from Bajío University in Mexico (right), as well as John Cristian Fernandez Lizarazo from the Utopia Rural University Campus in Yopal, Colombia (left). Then, on the occasion of the World Day to Combat Drought and Desertification, we hosted Sahar Abidi from the Sylvo-Pastoral Institute of Tabarka in Tunisia. We look forward to seeing even more of you at our upcoming online events. Find all our webinars with English subtitles on ILIASS!



Check out our past webinars

CONFERENCES

5° National Conference on Sustainability Research



At the 5th National Research Congress, organized by La Salle Bajío, the work of the UNESCO Chair was presented during a session dedicated to social research. Held in a hybrid format, the event featured a joint presentation bringing together several project participants. Among them, Dr. Elsa Edynak, coordinator of the UNESCO Chair, spoke remotely from Rouen. This presentation marked the first official presentation of the Chair's work in Mexico.

COP17 - Mongolia



What is the state of the world's soils, and what can we do to address this issue?

Find out the answers at the launch of the report "State of the World's Soils 2026" during COP17 of the United Nations Convention to Combat Desertification (UNCCD) on August 27 in Ulaanbaatar, Mongolia.

Watch this lecture

EVENTS AT LASALLE BAJIO

Summer Academy



As part of the DELFIN program (Interinstitutional Program for Strengthening Research and Higher Education in the Pacific Region), which aims to introduce Mexican students to scientific research, Edhu Romero del Carmen, a student of Pharmaceutical Chemistry and Biology at the Autonomous University of Guerrero, joined the UNESCO Chair project "Soils, Biodiversity, and Future Generations" this summer.

From June 8 to July 24, he participated in the "Effect of Kiln Bricks on the Urban Area of León, Guanajuato" project, which examined the impact of artisanal brick kilns on the urban environment. Mexico is home to approximately 17,000 artisanal brick kilns, accounting for nearly one-third of those in Latin America. These traditional open-air kilns emit significant amounts of air pollutants, affecting air quality, the climate, and the health of both the soil and the population. More than half of the country's brick production is concentrated in the states of Puebla, Jalisco, and Guanajuato, where demand remains particularly high.

International Conference RIILSA



The International Network of Lasallian University Researchers (RIILSA) Conference is an annual event during which researchers from the network present and discuss their scientific work. Typically held in person over two to three days, this year's conference took place in a hybrid format on July 6 and 7.

This presentation was a highlight of the conference, spotlighting the Lasallian Environmental Network, an initiative developed over the past three years that is now part of the UNESCO Chair on "Soils, Biodiversity, and Future Generations." As the first network of its kind within the Latin American Lasallian system, it aims to bring institutions together around environmental issues, foster scientific collaboration, and strengthen actions in support of sustainable development. The presentation highlighted the progress made and underscored the network's strategic role in rolling out the UNESCO Chair's activities at the national level.

CALL FOR PAPERS

Special Issue – "Biodegradable Polymers and Biocomposites in Compost and Soil" for February 2027.

A call for papers is currently open for the special issue "Biodegradable Polymers and Biocomposites in Compost and Soil" of the journal Polymers. This special issue welcomes research on the biodegradation of polymers and biocomposites in compost and soil, under aerobic or anaerobic conditions, as well as on their formulation, processing, and characterization. The call is open to the entire scientific community. The promotional flyer may also be shared with researchers who may be interested.

Infos and submit

ACTUALITIES

Rouen à Table !



What if the quality of our food began right beneath our feet? As part of the annual "Rouen à Table" event, taking place October 7–9, 2026, the UniLaSalle Research Institute will invite children to discover the secrets of the soil and its essential role in our food supply. Through fun hands-on activities, children will learn how soil forms, what organisms live in it, and how they help plants grow. Earthworms, microorganisms, and roots will soon hold no secrets for them! The workshop will also offer an exploration of seeds, cultivated plants, and the foods derived from them. It's a hands-on way to trace the journey from seed to plate and to understand that living soils are essential for producing tasty and nutritious food.

Learn more

NATURELLEMENT ROUEN - NOVEMBER 20-22, 2026

The UNESCO Chair will participate in the 5th edition of "Naturellement à Rouen: **Biodiversity - Our Future**," taking place November 20–22, 2026. This event, open to the general public, will introduce attendees to the diversity of life by exploring its evolution and the threats it faces, as well as its connections to our own existence. The event is open to everyone and features science cafés, city walks, lectures, roundtable discussions, film screenings followed by discussions, workshops for young audiences, booths, and photo exhibitions…



Infos on the event



SAVE THE DATE : World Soil Day, 1st Edition

The launch of the UNESCO Chair in "Soils, Biodiversity, and Future Generations" will take place on World Soil Day, **Friday, December 4, 2026.**

This international event will be dedicated to sharing knowledge and expertise on soils, both across generations and among regions. Join us for the first edition of this landmark event organized by UniLaSalle and the UNESCO Chair in Rouen, France. Don't miss this major event. **We look forward to seeing many of you there!**

Contact us : eva.gaubert@unilasalle.fr

Want to change how you receive these emails?

you can update your preferences or unsubscribe from this list.

Suscribe to the Newsletter

ILIASS LinkedIn Youtube