



Catchment Science 2023

Wexford,
November
7th-9th



Achieving agricultural and environmental targets under changing climate

Catchment Science 2023 is the fourth international conference hosted by the Agricultural Catchments Programme, funded by the Department of Agriculture, Food and the Marine. The event will be held 7th - 9th November 2023 in Clayton Whites Hotel, Wexford, Ireland and will bring together scientists, regulators and practitioners engaged with water quality and gaseous emissions in agricultural river catchments.

Important dates:

Abstract submission: **31st March – 31st May**

Registration opens: **30th April (early bird)**

Conference: **7th – 9th November**

Webpage: <https://teagascacp.clr.events/event/133681>

E-mail: CatchmentScience2023@teagasc.ie

Conference themes and scope:

1. Soil fertility, nutrient and carbon management

This session deals with all aspects of nutrient and carbon management, and exploring the management efficacy in the context of water and air quality, soil health, biodiversity, carbon sequestration and other ecosystem services at different scales.

2. Gaseous emissions and carbon sequestration

Research on eddy covariance technique for monitoring carbon and nitrogen fluxes, impacts of climate and management, net ecosystem carbon balances for different agroecosystems, linking remote sensing products with flux methodologies, monitoring and modelling of ammonia concentrations at field and catchment scales.

3. Land to water contaminant loss

Research that provide a system function understanding to identify critical areas, critical times and critical pathways for contaminant (nutrients, pesticides, pharmaceuticals, pathogens, etc.) loss to water in the agricultural landscape.

4. Long-term, in-situ monitoring and catchment modelling of water quality and greenhouse gases

Research which leverages the benefits of large datasets generated from multi-year in-situ measurements for improving analytical methods and modelling approaches, exploring low-cost proxy parameters for assessment of status and trends.

5. Climate induced changes

Research assessing the impacts of climate change on agricultural land use, agricultural management, socio-economy, ecosystems and water quality. We also welcome contributions on optimization of climate science and model projections to explore appropriate mitigation measures in climate-sensitive environments.

6. Running a 'living lab' in agricultural settings

Research demonstrating novel approaches to the development or critical assessment of sampling strategies in agricultural settings. We welcome contributions on running a living lab from the perspectives of all actors, including case studies, equipment appraisal, methodology comparison, terrain types etc.

7. Aquatic ecology: impacts of hydro morphology and contaminant stressors

Studies linking in-stream physical/chemical characteristics to the health and functioning of aquatic ecology. Also contributions which explore the links between how hydro-morphology controls contaminant cycling within agricultural streams or which examine the impacts of contaminants from agricultural origins are also welcome.

8. Approaches for mitigation strategies

Research and practical examples demonstrating the possibilities of decision support tools and mitigation measures to improve water quality and/or reduce greenhouse gas emissions under current and future climate and management.

9. Socio-economy: attitudes, perceptions and impacts of policy change

Studies that explore socio-economic issues in environmental management, including how to incentivise sustainable land use practices, how to engage stakeholders in management decisions, and how to measure the social and economic benefits of farmer interventions.

10. Knowledge exchange and Stakeholder engagement

Research, case studies, science into policy in the broader area of knowledge exchange and stakeholder engagement in water quality.

11. Governance and policy implementation

Panel discussion

Gala dinner and Field visits



***Welcome to Catchment Science 2023 in
Wexford, Ireland!***