

## Life Cycle Assessment and Energy Analysis of Indoor Farming Systems

### Masters of Environmental Studies-Sustainability Management Position at University of Waterloo

#### *Are you passionate about sustainable food production and new technologies?*

Indoor farming systems (including greenhouses, container farms, and vertical farms) are a growing sector for food production, but their financial, social and environmental sustainability are not well understood. These systems have the potential to supplement field crops in providing food security for a growing population, but if not developed appropriately, could have a higher carbon footprint.

We are looking for a motivated applicant to conduct research on indoor farming systems using environmental life cycle assessment (LCA) and life cycle costing, who can start in **September 2025**. The applicant must be a **Canadian citizen or have Permanent Resident status**. The applicant will conduct energy analysis and LCA of small-scale indoor farming (e.g. container) units and consider renewable energy options. If your interest extends to environmental assessment for sustainability and circular economy, this might be the perfect opportunity for you.

Applicants with background in Environmental Engineering, Chemical Engineering or Environmental Science, *or equivalent background or experience*, are welcome to apply. The applicant must be comfortable in working independently and have strong problem solving and analytical skills and communication skills (oral and written) and should have a minimum of 85% average in the last two years of study.

To apply, please forward a **detailed CV and cover letter** highlighting your qualifications and experience related to this topic to Prof. Goretty Dias at [gdias@uwaterloo.ca](mailto:gdias@uwaterloo.ca). Applications will be reviewed until the position is filled. Ensure you include "LCA of Indoor Farms MES Position at UW" in the email subject to help us quickly identify your application. The selected candidate will get approximately CAD\$27,000 over the two years through teaching assistantships, with opportunities for applying for external scholarships.

The student will be a member of the [Waterloo Industrial Ecology Group \(WIEG\)](#) that supports collaborative research and teaching and confronts the challenges of sustainable development in the systems of production and consumption that power the 21st century economy.