UNH Sustainability Institute

SIMAP: The Sustainability Indicators Management and Analysis Platform

UNH is not only one of the first campuses to calculate its nitrogen footprint, but it is also making it simple for other campuses to do so, through development of the integrated carbon and nitrogen foot-printing tool, SIMAP (the Sustainability Indicators Management and Analysis Platform) (see https://www.unh.edu/unhtoday/news/release/2017/04/18/unh-helps-lead-way-campuses-measure-their-nitrogen-footprint). SIMAP combines the functionality of the Campus Carbon Calculator™—which for more than a decade has been relied upon by thousands of institutions for tracking their campus carbon footprints—and the Nitrogen Footprint Tool first created at UVA and piloted with 18 institutions across the US. SIMAP is currently in beta testing phase and will be launched formally in September 2017. (See https://sustainableunh.unh.edu/simap%E2%84%A2)

Nitrogen is a significant (and too often overlooked) global pollutant that contributes not only to climate change but also to water quality and air quality degradation. A nitrogen footprint connects campus activities with the resulting nitrogen pollution released to the environment. The largest sectors include food purchases, utilities, and transportation.

Being able to do an integrated inventory of the campus carbon and nitrogen footprints with SIMAP gives campus sustainability officers a powerful, accurate and efficient way to track both of these pollutant streams without replicating data collection or analysis work. Using the data from SIMAP, campuses will be able to report to AASHE, Second Nature, and other sustainability oriented organizations and stakeholders about both their GHG and Nitrogen footprints.

The development of SIMAP has been informed by UNH's own work to track its GHG and nitrogen footprints (as well as the experience of users of the Campus Carbon Calculator, CarbonMAP and the Nitrogen Footprint Tool). Beginning in 2015, UNH began tracking its own nitrogen footprint, measuring baseline FY 2014 nitrogen pollution at 186 metric tons of nitrogen. The largest contributors were food purchases (72%), transportation (13%), and utilities (8%).

This work to track and manage our own nitrogen footprint at UNH is important locally because it allows for a more comprehensive understanding of our environmental impact, including the ways in which we contribute to the urgent nitrogen pollution problem in the Great Bay watershed. It is allowing us to develop, and further make the case for, setting targets and implementing management strategies for reducing this impact.

Undertaking, synthesizing and/or "operationalizing" the nitrogen research necessary to continue development and refinement of the institutional tracking methodology, in parallel with our ongoing work to contribute to and integrate best practices in carbon accounting into the new SIMAP tool, is important and innovative work that continues to help the entire campus sustainability community to contribute to global and local environmental solutions.