NELF Explorer Teaching Module:
Drivers of Landscape Change
BY: MEGHAN GRAHAM MACLEAN, PHD

Overview

Students will use NELF Explorer and, optionally, other materials from the NELF project, to explore the New England scenarios using concepts from landscape ecology and land systems science. The module introduces the NELF project as well as some of the modeling theories and practices used to create projections of future land cover for policy and scientific analysis. Students will compare the scenarios and their outcomes in different parts of New England to understand relationships between land use decision-making and patterns of land cover. They will also consider the strengths and weaknesses of the NELF scenarios and discuss what other factors could contribute to future land use change in the region.

Student Level

The module is suitable for college-level students, including advanced high school students who have some introduction to concepts of landscape ecology and/or land systems science.

Learning Outcomes

At the end of this lesson, students should:

- Have a basic understanding of land use change in New England
- Recognize the difference between land use and land cover
- Be able to identify what a neutral model is
- Understand the benefits and challenges of future scenarios and modeling of land use/land cover

Length

Approximately 1.25 hours. This module can be done entirely in class or, for potentially more in-depth answers, assigned partially as homework.

Materials

Students will need a computer with an internet connection and a web browser. All NELF materials, including NELF Explorer and *Voices from the Land*, are publicly available online.

Where to Access

Instructor notes and a student worksheet with links to all necessary materials are available on QUBES. Or search for doi:10.25334/SAXJ-XC69.

Image caption: A question from the student worksheet shows how students will use the NELF scenarios to connect pattern (maps) with process (drivers).