Script

Carbon Course Introduction

Hello. I’m Michael Furniss of the Pacific Northwest Research Station
On behalf of the planning and production team, I want to welcome you to this short course in forest and grassland carbon.

What is it?

This short course is designed for wildland managers who want to understand how forests and grasslands store and release carbon, how management can affect carbon storage and release, and the emerging market contexts. We'll cover many topics, including the questions such as: "Is good carbon management also good forest management? At what scales should carbon budgets be built and tracked? How do emerging offset markets work? And a lot more.
The course includes 15 talks focused on topics of relevance to wildland managers. These talks are accompanied by related references and links, and a set of quizzes on the material presented. . Each talk was created by a leading scientist in the field, and a select group of natural resource managers and specialists offered suggestions for improvement before the final versions were filmed.
The course does not provide prescriptions or suggest how you should manage forests and grasslands. These are your decisions to make. We do try to give you information and tools to think about and analyze carbon in the context of your management goals.

It is important to remember that sustainability remains the fundamental goal of ecosystem management. Activities that promote carbon stewardship will often align nicely with activities that you are already conducting on your forest or grassland. In many contexts and situations, good forest management is also good carbon management. Where other priorities do not clearly align with carbon management, we believe this course will help inform your decisions.

Why does this matter?

Carbon dioxide and a few other greenhouse gases are now at much higher concentrations in Earth’s atmosphere then they have been in a very long time - at least half a million years. Greenhouse gases control the heat capacity of the atmosphere, and the distribution and transfer of this energy control the global climate system. These are simple facts and are beyond dispute

The continued increase in greenhouse gases is a big concern for humanity -- because such large and *rapid* changes in the climate system can results in widespread ecological, economic, and demographic disruptions, many of which will be negative if not devastating. There is therefore a lot of interest , globally and in the US, on reducing and mitigating greenhouse gas emissions.

Forests and grasslands can hold large amounts of carbon, some of it for long periods of time. Globally, the magnitude of carbon emissions from deforestation is roughly comparable to the entire global transportation sector. So forests and grasslands are extremely important to any national program to reduce emissions, and are being considered to provide offsets and to compensate for other emissions.

We now have a global agreement for Reduction of Emissions from Deforestation and Degradation, called REDD for short. Such a global forestry agreement is unprecedented. It represents an area where the countries of the world have agreed that conservation of the values and services provided by forests is important and worth cooperating on. This agreement provides a framework for working out the details. Many of the details are are technical subjects that we address in this course.

How we did it.

We built this course in a workshop format. The workshop was organized as a retreat at a remote site in the Appalachian mountains of Kentucky. We invited some of the best scientists in the field, as well as a select group of natural resource managers and specialists to act as reviewers and discussants. Scientists coordinated and refined their lectures based upon constructive feedback offered by the land managers. The scientists then delivered their talks during a formal videotaping. We then produced these talks in the user-friendly format that you have in front of you now.

How you can use it

You can get a good understanding of the theory and practice of forest and grassland carbon dynamics by going through this course. However, the field is changing very rapidly, and ecological and management contexts differ greatly from place to place, so the course should not be considered comprehensive. Learners are encouraged to dig deeply into other resources as well, and some suggestions are provided in the course references section, and the recommended resources section.

The course is part of the content creation program of the Climate Change Resource Center, which is focused on helping managers cope with a rapidly changing climate. Please visit the Climate Change Resource Center frequently, as we continually add useful knowledge resources on forest and grassland carbon and other important topics.

In this electronic format, you can access any talk, and any topic within any of the talks as you wish. You are not constrained to follow the agenda, or to watch the talks from start to finish. However the course was designed with a specific order and you may benefit from following this order. Learning these concepts, approaches, and methods just by browsing the material may be less effective than simply getting comfortable, and allowing the lecturers to tell you their story.

You can stop, restart, and repeat any of the topics by using the table of contents and by using the space bar. You can also grab the video progress marker and drag it to skim through the topics, keeping an eye on the slides to see what you might want to review in more detail.

The talks are also available in a "portable" format that you can watch and listen on mobile devices if you wish.

The quizzes are provided for your benefit. We encourage you to use these to gauge your retention of the presented concepts.

Thanks for your time and attention. We hope you enjoy the short course, and that it helps you with the work you do as a forest and grassland manager.