

ERS Peer Review Plan

Preliminary Title: Climate Change and Global Crop Yields: What Happens to Corn, Rice, Soybeans, and Wheat?

Type of Report (ERR, EIB, EB) ERR

Agency: Economic Research Service [X] Influential Scientific Information
USDA [] Highly Influential Scientific Assessment

Agency Contact: Kelly Maguire, kelly.b.maguire@usda.gov

Subject of Review: An increasing global population—with changing diets and an increasing demand for animal-based products—and a changing climate puts pressure on the existing and future food supply. This is because a changing climate could lead to warming temperatures and the increased likelihood of extreme weather events such as droughts and floods, impacting agricultural productivity, in particular crop yields. Estimates from several pieces of research indicate that severe shifts in crop yields due to climate change could happen sooner (within the next 10 to 20 years) than previously projected. Lower crop yields could lead to lower agricultural productivity, which could impact agricultural production and ultimately food prices and food security. And this is at a time when incomes are increasing and leading to an increase in food demand—especially from meat, which uses crops as an input into production.

Purpose of Review: The purpose of the review is to ensure the high-quality of the economic analysis, transparent explanation of methods, objective interpretation of results, and effective communication to the intended audience.

Type of Review: [] Panel Review [X] Individual Reviewers
[] Alternative Process (Briefly Explain):

Timing of Review (Est.): Start: 6/09/2023 Completed: 12/21/2023

Number of Reviewers: [] 3 or fewer [X] 4 to 10 [] More than 10

Primary Disciplines/Types of Expertise Needed for Review: Economists

Reviewers selected by: [X] Agency [] Designated Outside Organization

Opportunities for Public Comment? [] Yes [X] No
If yes, briefly state how and when these opportunities will be provided:
How:
When:

Peer Reviewers Provided with Public Comments? [] Yes [X] No

Public Nominations Requested for Review Panel?

Yes

No