

Policy briefing analyzes US climate change

February 4 2014, by Blair Fannin

A Texas A&M AgriLife Research scientist and Texas A&M University doctoral graduate have co-authored a policy briefing on climate change, one of seven publications focusing on energy in the U.S.

Drs. Bruce McCarl and Marta Wlodarz recently co-authored a policy brief and book chapter, "Climate Change and Energy: Interrelationships and Possible Policy Approaches." The policy briefing is one of a seven-part series of briefings on [energy](#) by the [National Agricultural and Rural Development Policy Center](#).

In the briefing, McCarl and Wlodarz outline [climate change](#) in the U.S. since 2000 and examine factors and provide possible mitigation steps to reduce potential climatic threats.

"Energy and climate change are highly interrelated," McCarl said.

"Energy is the dominant source of [greenhouse gas emissions](#), and some of the ways of dealing with climate change involves smarter energy use and planning so that future energy development does not greatly increase emissions."

The policy paper notes the National Academy of Sciences has outlined a suggested portfolio of approaches to mitigation, which include adopting a mechanism for setting an economy-wide [greenhouse gas emission](#) pricing system. This would be complemented with increases in energy efficiency; reduced emissions from energy use in electricity production and transportation; retirement, retrofitting or replacement of emission-intensive infrastructure, and creating new technology choices.

McCarl said from an economist's perspective, greenhouse gas emissions are an "externality, in that they are not deliberate acts on behalf of emitters."

He says they are byproducts of production and consumption that are not factored into decision-maker choices. McCarl suggests a carbon price be established to provide incentive to reduce carbon emissions.

One way would be through regulation "in which the price is foregone income," according to the paper.

An emissions tax would provide certainty on emissions cost but yield an uncertain quantity of emissions reductions.

The paper also suggests a hybrid system where people are allocated rights that could be "tradable" through a cap-and-trade arrangement in which the private market sets the emissions price.

Provided by Texas A&M University

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