



## Institute for Agriculture and Trade Policy

2105 First Avenue South  
Minneapolis, Minnesota 55404  
USA  
iatp.org  
agobservatory.org

The Institute for Agriculture  
and Trade Policy promotes  
resilient family farms,  
rural communities and  
ecosystems around the world  
through research and education,  
science and technology,  
and advocacy.

COMMENTARY November 7, 2007

# Nature Providing a Reality Check

By Dennis Keeney and Mark Muller

The prestigious National Academy of Sciences (NAS) released two disturbing studies last month. Taken together, they issue a stark warning about the direction of Midwest agriculture and provide a guidepost for important policy changes that must be made in the 2007 Farm Bill currently being debated in Congress.

The first NAS study found that while corn-based ethanol is only a marginal stress on water right now, the industry's direction could jeopardize future water supplies in the Great Plains and Midwest. The second report faulted the Environmental Protection Agency for inconsistent oversight of state policies and inadequate use of its authority vested in the Clean Water Act to protect the Mississippi River. While the EPA has enjoyed considerable success in reducing pollution from factories, it has struggled to address pollutants running off farm fields and feedlots.

Our Midwest agriculture, so prized in story, fable, paintings, songs and yes, myths, is at the heart of these two studies. Our farms have been tasked with providing livestock feed, expanded exports, many of the carbohydrates, fats and sugars in the U.S. diet, and most recently, biofuel.

But the public wants a few other things, like safe drinking water for the 50 cities that use the Mississippi River system for their water source. And also trophy fish, abundant wildlife, safe swimming beaches, and clean air, water and soil.

Can we have a thriving Midwest agriculture and clean and plentiful water systems? Unfortunately, the two NAS studies conclude that the current agricultural system is not well suited to protect soil and water resources needed to reach both objectives.

The heart of the problem is that five states in the upper Midwest grow more and more of just two crops, nearly 90 million acres of corn and soybeans. These crops produce high yields, are easy to store and transport, and have multiple end uses. When these crops are part of a diverse rotation that a farmer plants over many years they can play a role in maintaining a sound ecosystem.

But the Midwest cropping system is acting more like a canoe slowly taking in water. As more corn and soybeans are grown, more industrial uses are found for using the crops, subsequently creating more demand -- and as the canoe takes in more water it becomes harder to get back upright. Many rural counties have over 90 percent of their land in corn and soybeans, and consequently communities throughout the Mississippi River basin are struggling to deal with the nutrient and chemical issues that often result from this agriculture system.

Strong grain demand is pushing aside land kept for conservation or for growing less profitable but less polluting crops. Water tables are dropping in some areas, rivers are reaching record levels of nitrate, and erosion is likely to be increasing, in part because of more row crops. Reduced water availability is a particular concern in much of the Great Plains. Without plentiful groundwater supplies, agriculture and many other economic activities cannot continue.

Drastic action is needed to get the Midwest landscape and the Mississippi River back to where it should be. Agricultural sustainability is no longer a feel good option, but a requirement.

We have two policy tools that can help. The first and most obvious is the Clean Water Act. If a particular pollutant is harming a river, the EPA has the authority to demand all polluters in the watershed figure out how to collectively meet the pollutant reduction target.

But just as important is the Farm Bill, currently being debated in Congress. This bill provides billions of dollars in conservation payments for farmers to set aside highly erodible land and improve farm practices like manure management. Farm policies, such as the Conservation Security Program, promote and reward those who farm sustainably and reduce runoff. The Farm Bill can help develop and promote soil and water-conserving biofuel systems, such as helping farmers transition from corn-based ethanol to perennial grasses and cover crops as a biofuel feedstock.

However, this is only a small component of the Farm Bill, and other programs provide the research, payments, crop insurance, and other drivers that keep farmers stuck growing a few row crops like corn and soybeans.

Now, government policies push for more grain and more conservation. We cannot have both without changes in the way we do business. A change in the primary feedstock for biofuel could offer one path to sustainability. So could a fully-funded and targeted Conservation Security Program. These reforms are absolutely necessary to ensure the long-term productivity of the land, protect natural resources and rivers, and provide the base for a thriving agricultural economy.

Dennis Keeney is a Senior Fellow at the Institute for Agriculture and Trade Policy. Mark Muller is the director of the Environment and Agriculture program at the Institute for Agriculture and Trade Policy.