Innovative Approaches to Climate Change: A State-Federal Workshop

Solutions in Agriculture

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Thank you to the Pew Foundation for sponsoring this important workshop. I hope we all move forward with knowledge gained in a positive spirit. The world needs us to put politics and biases aside to charge forward, work together and make our entire planet a better place. Even if change may be late for our generation, we must remove barriers to changes for our children and their generations. Regardless if your address is Sri Lanka, New York, or a small rural community in rural Nebraska, much work remains.

My talk will focus on three key components:

1. Agriculture in the US
2. Agriculture as a key player to mitigate climate change.
3. Agricultural and Carbon Sequestration in Nebraska, what happened and what is working.

Agriculture in the United States. "Basic Agriculture" is an industry of developing nations, based on small farm models that grow and sell commodities in local markets. The Unites States has moved far beyond that model, whether for the good or the bad, and it continues to be a huge industry in the United States. Ag policy is deeply rooted in our great nation's inception:

1. First, the critical failure of ag policy is that natural resources only have value when they are harvested. It does not matter if it is timber, crops, water, or gold. No money changes hands until harvest. Furthermore, for the past 50 years, policy has been toward high yields. This has resulted in "mining" the land and depleting soils of valuable nutrients and trace minerals. As a result, nationwide people have weakened immune systems because they are not getting nutrients needed in food products. Focus on Carbon Sequestration is a great first step to rebuilding our soils and develop products of value to society.

2. Second, when something works, there is a tendency to implement it broadly, regardless of local conditions. i.e. "the more you harvest the more you are paid." The best example of this is the Dust Bowl debacle. We did that to ourselves. We transferred European agricultural practices to the East Coast where rainfall and climate were adequate to support that type of farming, and just rolled it out across the national map. No attention to details, just a "One-size" fits all –mentality for all settled portions of the US.

   It was wrong and Mother Nature whipped back with a vengeance. Again in the 1970's incentives led producers to plow "fence post to fence post," lured by $6 / bushel corn. Many acres of ground were plowed that never should have been, and this led to another huge ag economic crisis. Did we learn from these? Not really, policy continued to be toward high yields and further "mining" of the land. To correct this error, we need to focus

producers on utilizing resources, i.e. build soil, conserve water, harvest sunlight energy and manage for diversity.

3. Third, it would be unfair to say that US Ag policy hasn't tried to reward conservation, but funding is inadequate and farmers bear the short-term financial shortfalls for moving from full -tillage to no-till and other improved conservation practices. These efforts are late and under funded. The Conservation Security Act is a great idea – but not funded! Global warming is here. The ice caps are melting, world-wide we have major catastrophic-extreme weather events, drought followed by flood, and our citizens have weak immune systems and other health issues because food has low nutritional value.

Are we doing enough in the US? We are addicted to fossil fuels – and we tolerate low-nutrient foods. We have been so focused on producing more for less, that the only value left in our commodity is cheapness. Don't we "get it?" No, because the only incentives to change behavior is profit and there is no room left for adding profit to production. Also, true cost of global warming is hidden.

Who pays the cost? We all do, at the gas pumps, through higher insurance premiums and taxes to pay for clean-up after untoward weather events, higher medical insurance to pay for health problems. Our nation is not doing enough, and two things need to happen. We must embrace Kyoto-type policy at the national level; and we must seriously fund incentives for conservation practices and help restore nutrient-depleted soils.

So where does Agriculture fit in all of this? Ag is a great tool to mitigate global warming, and Ag is also the answer to restoring nutrients to our food systems. We must move beyond producing products of cheapness and produce the values of sustainability – clean air, building soil, pure water, foods rich in nutrients – and then we can market "added value."

Carbon sequestration is a key component, as it is a logical approach to achieve both goals. Conservation based ag policy would benefit all of society. Good conservation practices with low tillage and minimal to no chemical use, improves air quality, water quality, soil quality and results in healthier foods. Even as ag has tremendous potential to mitigate, they are also an emitter, accounting for approximately 7% of total US GHS emissions. So ag has the potential to offset their own emissions and help offset other sectors, and farmers can enjoy profits from a "new crop."

Where is the money to fund these initiatives? It's time to look at alternative budgets. How about redirecting cotton and tobacco subsidies toward restoring soils to support healthier foods? How about redirecting current commodity subsidies to farmers for moving from full-tillage no-till? How about redirecting Health and Human Service funds to address improving the nation's food supply and building immune systems? How about some Public/Private partnerships with insurance companies to help fund positive initiatives? Fund the Conservation Security Act.

What is happening in Nebraska? I'd like to recount my experience with Carbon Sequestration and tell the story of Nebraska's entrance to this

important debate. For me, personally, it was thrilling to help move important legislation quickly. I was Governor Ben Nelson, now Senator Nelson's Assistant Director of Agriculture towards the end of his second term. So I am now a "has been" and can be candid. I was also an appointed member of the Nebraska Farm Policy Task Force, which was funded by the Nebraska Corn Board and consisted of producers and representatives from the entire state to address future directions for Agriculture. The Task Force was led by Clayton Lukow, a long time farmer and board member for the Nebraska Public Power District, and Dick Mercer, a long time cattle man - both with long-term, statewide respect. I raised the issue of Carbon Sequestration as a new opportunity for agriculture, and the group supported further investigation.

Our first step was to meet with Nebraska Public Power District, (the state's largest emitter,) and asked if they'd be a partner to explore how carbon credits and carbon offsets could benefit Nebraska's agriculture. We said, "You have a problem. We have a solution. Don't buy carbon credits in tropical areas, look to us, your customers first!"

They agreed. To gather further information, they sent me, and a member of NPPD to an International meeting of scientist hosted by Ohio State. We came home with specific recommendations for Nebraska, and the group supported them.

First, legislation was written for agricultural based carbon sequestration policy – and this passed first round. As part of the legislation, a Carbon Sequestration advisory committee was formed to investigate

potential for in-state agricultural carbon sequestration. And finally, the entire state was mapped for soil carbon content to establish a baseline. This was all done in a short timeframe, thanks to strong, statewide leadership. As a result, Nebraska has the tools and baseline data to respond to a carbon market. With the statewide mapped database, individual landowners have information needed to respond to offers to sell or lease their sequestered carbon.

Unfortunately, at the State level, little has happened. Administration changed, at both the national and state level. The Legislated Advisory Committee meets "Only when they must," stated by two members, and they tell me they have no funds. Without national movement I doubt this will change.

Yet action is happening from Nebraska, and it is from the producer level. More are converting to lower-till agriculture, some converting to organic ag production, I see more cover crops, and some areas are under the gun regarding water usage, (driven by lawsuits.) Whether voluntarily or involuntarily, producers see the value of increasing organic materials, increasing moisture capacity in soils and holding nutrients in root zones. This is adding value at the grassroots level, literally! Local Natural Resource Districts are working with NRCS and others to further develop incentive programs. To date, nobody is selling carbon credits.

As far as other efforts, Nebraska has done much with Ethanol, and there are eleven working plants in the state. Even though Nebraska is a huge beef state and has large numbers of feedlots, there are no methane re-capture

systems. The state also has much potential to develop wind energy, and there are approximately three large turbine sites in the state.

I'd like to touch on an interesting situation with change driven by rural public power districts. They face the dilemma of maintaining miles of power lines that serve fewer and fewer customers due to rural depopulation and consolidation in Agriculture. Many of these lines are old and need replaced, to the tune of approximately $17,000 per mile. Since this is not an affordable option, the power company is putting in PV panels at these remote sites.

They are also developing a plan to help convert homes to more renewable energy by offering customers to pay their current prices for energy for the next seven years, and the power district will install energy efficient systems, such as heat pumps. I appreciate this leadership!

In conclusion, without federal leadership I doubt Carbon Sequestration activity will happen at the State level. But Nebraska is fortunate to have forward thinking folks taking action at the individual and local level. As a group, let's focus attention on getting some "real money" invested in restoring nutritional value to our nation's food supply by funding policy that rewards and encourages conservation. The first step to marketing added value is producing a product of value. The first step is government incentives to help produce products for all of society's good – clean air and water quality. Funding more toward Carbon Sequestration is a great start.