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Agriculture Secretary Outlines Vision for Agricultural Solutions to Environmental Challenges in Speech to the National Press Club

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http://press.org/events/npc-luncheon-tom-vilsack-secretary-us-department-agriculture

Good afternoon, everyone. I want to thank the National Press Club for the opportunity to discuss a complex environmental challenge American agriculture will face in the years and decades to come.

In particular today, I want to focus on America's food supply. Specifically - how we've mitigated threats to it in the past and how today we face evolving environmental threats, requiring again that we mitigate and adapt.

This is an important discussion because our food supply stands at the core of our strength as a nation. Today, American agriculture is tremendously productive, largely due to the innovation embraced by our farmers and ranchers.

Productivity impacts more than the farmer's bottom line. Productivity empowers America to lead the way in feeding a growing world population - enables us to maintain an agricultural trade surplus that supports over a million jobs - and allows us to enjoy an affordable, diverse, homegrown food supply - all of which makes America more secure.

We achieved this productivity because American agriculture has always adapted to threats. We're flexible and responsible when disaster strikes. But we've also taken the long view. We've always asked what we'll have to deal with next week, next month or next year.

Risk management and adaptation starts on the farm. Farmers and ranchers are on the front lines of identifying threats and adapting to meet them. When a crop goes south or a herd gets sick, producers don't chalk that up to luck. They find out what's wrong and they fix it.

For more than a century they have had our help in fixing problems. We are people that have invested and supported our agriculture sector. From USDA, to academics, to local extension agents, experts and advisors at all levels have been there to help our farmers get the

job done.

Keeping agriculture strong and productive is a joint undertaking and a shared responsibility.

During and after the Dust Bowl, USDA helped farmers, ranchers and foresters reestablish the soil through new management efforts - planting marginal crop land with resource-conserving cover; taking new steps to protect water sheds; regenerating trees to break the devastating wind. These steps continue today.

When America's forests were racked by historic fires, we came together to develop new methods to sustain, regenerate and protect forest lands.

Last year, as producers faced the worst drought in generations, groundbreaking agricultural research and smart business planning saved crops that in the past would have been destroyed.

The bottom line is that in the United States, we produce an amazing amount of food because we adapt to today's threats and prepare for tomorrow's threats.

Today, we face a new challenge in the form of a changing and shifting climate.

I'm the Secretary of Agriculture, and I am not here today to give a scientific lecture on climate change. I'm here to tell you what we're seeing on the ground.

We're seeing more severe storms. We're facing more invasive species. More intense forest fire threatens communities each year. NOAA reported that 2012 was the second most intense year in our history for extreme weather events - droughts, flooding, hurricanes, severe storms and devastating wildfire. NOAA also advised that last year was the warmest on record for the continental United States.

Right now, our farmers and forest landowners continue to adapt. New technologies and advanced practices have managed to keep production steady even in the face of these new and more extreme weather patterns.

But the latest science tells us that the threat of a changing climate is new and different from anything we've ever tackled.

Earlier this year USDA released two comprehensive studies - one focused on crops and one on our forests - detailing the projected effects of climate change on our agriculture and forestry production.

These studies found that in the short term we have the means to manage threats, but over the next fifty years we will face new and different problems.

We'll face the need to adapt crop production. As temperatures increase, crop production may need to shift based on water availability and other factors. Where you're growing water-intense fruits and vegetables today, you may be growing a drought-resistant row crop in a generation.

Rising temperatures will also add to our invasive species issues, bringing with them increased costs for producers. Right now, weed control alone costs us more than $11 billion a year in the U.S. - and those costs are expected to rise with increasing temperatures. When winters aren't cold enough to kill off invasive insects, we'll face a new challenge to adapt to those threats. Landowners, dealing with bark beetles, are already starting to experience this phenomenon.

We will face more severe weather patterns. We'll see more events that could harm crops and livestock, which demand new strategies.

In our forests, the troubling pattern of intense and destructive wildfires threatens to become the norm. The fire season is now at least 60 days longer than it was just 30 years ago. The pine beetle epidemic, which many scientists attribute to climate change, covers some 40 million acres of land across the interior west. Fires impact more acres. A recent Forest Service study forecasts a doubling of annual acreage subject to wild land fire by 2050.

We are also beginning to grasp that climate challenges will have impacts unique to each region of the country.

In the Northeast, extreme precipitation events have increased faster than anywhere else in the Nation, reducing yields.

Across the Midwest and Great Plains the growing season has lengthened by almost two weeks over my lifetime.

In the West and Southwest - home of more than half of our nation's high-value specialty crop production - increased drought poses a particular threat to irrigation-intensive nuts, fruits and vegetables.

So the fact is, across America, farmers and ranchers and forest landowners are seeing the beginning chapter of what will be a long-term challenge posed by a changing climate. This problem is not going to go away on its own.

That's why America must take steps now to adapt.

We know that developing modern solutions to a changing climate requires a doubling down on collaboration - between farmers, governments, researchers and industry. We have got to think outside the box, work together, and pool our resources to begin developing the next generation of climate solutions for agriculture. This is not a single, one-size-fits-all problem. We need a targeted approach geared to the particular challenge faced by each region.

We already have taken steps under President Obama to begin forging critical new approaches to mitigation and adaptation.

Take the livestock and dairy industries, for example. In 2009, USDA entered into an historic agreement with the U.S. dairy industry to mitigate the environmental impact of dairy production, by supporting new energy efficiency and waste-to-energy systems.

Over four years this agreement led to the creation of 184 new anaerobic digesters. Last

month, we renewed our MOU with a goal of helping the dairy industry reduce greenhouse gas emissions 25 percent by 2020.

We've also provided support through university research to help the livestock industry reduce its environmental footprint.

USDA recently announced $19.5 million in funding - led by the University of Wisconsin and Oklahoma State University - to look at the impacts of climate variability on dairy and beef production. Ultimately, these projects aim to deliver the best new tools for ranchers to sustain productivity.

This effort was the latest in our focus on Coordinated Agriculture Projects, joint efforts to best leverage America's agricultural research capacity. USDA under the Obama Administration has invested nearly $120 million in Coordinated Agriculture Project research to sustain our productivity in the face of modern environmental challenges.

We've worked with UC-Davis to explore how we might adapt conifer trees to changing climates - the University of Idaho to look at changes in soil carbon and nitrogen content - and Iowa State to look at several aspects of corn production.

We have made unprecedented efforts to conserve and protect America's forests which play a critical role in removing carbon dioxide from the atmosphere and storing it in trees, other vegetation and soil. The Forest Service increased the pace and scale of forest restoration on our National Forests through landscape scale projects that bring together forest industry, environmentalists and communities.

Given the threats our forests face, we moved away from the timber wars of the past towards a shared vision that recognizes we must work together towards a common goal of forest restoration.

In this spirit, USDA has adopted a new forest planning rule that ensures our forests will be restored and managed in a way that protects all the benefits that forests provide to Americans, including clean water, jobs, recreation and wildlife. And importantly, the planning rule allows the Forest Service to use the best available science to ensure our forests can adapt to climate change over time.

We have worked with more than 500,000 farmers and ranchers on private working land conservation efforts, and carried out thousands of projects to help them embrace renewable energy and energy efficiency projects on their property.

We have taken a new and committed look at the impact of climate on the future of agriculture - and how we at USDA will also need to adapt.

In addition to the two climate assessments I referenced earlier, we released USDA's first Climate Change Adaptation Plan this year. The Obama Administration has taken a comprehensive - and proactive - effort to ensure the Federal government is prepared for climate challenges that lay ahead.

As part of this, USDA engaged employees and agencies to address our weak points with regard to a shifting climate and modern threats from the environment. We found areas where our program delivery might be impacted by these new challenges.

Working with many different USDA agencies, we laid out 83 specific recommendations to be sure we can continue delivering top-notch service in the face of climate impacts. For example, we identified common needs to increase collaboration on climate planning within the Federal government and with our partners, such as land grant universities.

We laid out a need to better prepare APHIS to measure invasive species - to ensure that our scientific research helps deliver modern climate solutions - to strengthen the resilience of our Forests - and to help create new ways for producers to access information that will help them mitigate threats.

We'll be issuing a follow-up to this initial report in November of this year. But taken alongside the two climate impact assessments, these efforts reflect our understanding that proactive steps will pay big dividends in the decades to come. We know we need to be ahead of the game. We must continue to build on previous action in order to better support America's adaptation to climate challenges.

Today I would like to announce some new measures that we will be taking.

Regional Climate Hubs:

First, USDA will establish seven new "Regional Climate Hubs" to work in partnership with producers and foresters on new adaptation strategies.

This is the next step in USDA's decades of work alongside farmers, ranchers and forest landowners to keep up production in the face of challenges. If we are to be effective in managing the risks from a shifting climate, we'll need to ensure that our managers in the field and our stakeholders have the information they need to succeed.

That's why we're bringing all of that information together on a regionally-appropriate basis.

You can think of these new Hubs as service centers for science-based risk management - part of our broader effort to deliver extension for the 21st Century. They will enhance coordination of the science assets of USDA. They'll encourage folks to accelerate the development and delivery of forecasts and solutions to improve risk management in ways that matter for folks on the ground.

The hubs will enable us to carry out regionally-appropriate climate change risk and vulnerability assessments, and get data out to the field more quickly. Practically, the hubs will deal out advice to farmers and forest owners on ways to reduce risks and manage change.

They will serve as a starting point to further implement new strategies for adaptation, soil health and water protection. One very promising example is the possibility of multi-cropping production that will add additional nutrient value to the soil, better protect cropland, store more carbon and allow producers to expand income.

And as we further investigate possibilities for competitive markets in carbon sequestration and water protection, these regional Hubs will play a useful role.

While some of the work of these new Hubs will take place in existing USDA service centers across the nation, there is a very important collaborative aspect as well. We intend to fully leverage our relationship with the Land Grant and Public Universities, Agricultural Experiment Stations, and extension to provide new platforms for collaboration.

NRCS Tools for Producers:

Second, I can announce new efforts by the Natural Resources Conservation Service to move into the next generation of research and technical assistance.

In particular, both of these efforts relate to carbon. We know it's important to understand the role of carbon in contributing to global warming. It's equally important to recognize the tremendous potential of American agriculture to sequester carbon from the atmosphere - helping to mitigate climate change, while improving soil health to be more resilient in the face of modern challenges.

NRCS is launching today an online resource assessment database - the results of a study known as the Rapid Carbon Assessment - that will be particularly useful for researchers and scientists.

This tool will allow online access to the most extensive database on soil carbon in the world. While NRCS has collected soil samples for more than a century, this rapid assessment is an ambitious project. In fact, it is the largest concentrated soil sampling effort in history. NRCS scientists collected more than 144,000 soil samples at 6,000 locations across the country to provide baseline data on regional carbon stocks.

This will allow outside researchers and scientists to begin taking a fresh look at carbon in soil, which ultimately will have regional benefits to crop production.

Additionally, USDA NRCS and our Climate Change Office are rolling out an online tool that's intended for farmers, and ranchers themselves. We call this "COMET-Farm" - the Carbon Management and Evaluation Tool.

This online tool is the next generation of our ongoing efforts to develop user-friendly tools to help farmers understand the greenhouse gas footprints of their operations.

Producers will input information about their land and current and past management practices to establish a baseline. The tool will let them select from a list of alternative conservation practices to see how each one changes their greenhouse gas emissions and carbon capture. For example, a producer planning to implement conservation tillage could estimate how that conservation practice will increase soil carbon, and decrease emissions for the operation overall.

Used in this way, COMET-Farm can help producers reach decisions that reduce energy costs, while building carbon stocks in the soil. It would also serve as a gateway for future

efforts to help producers participate in voluntary carbon markets.

These new NRCS tools build on a campaign for soil health at USDA - because we know that healthy soil can absorb a significant amount of carbon, and help greatly in mitigating climate threats. By improving soil health we can simultaneously improve productivity, protect water resources, improve biodiversity, reduce erosion and help put carbon back into the ground where it belongs.

We also know that healthy soils are more resilient soils. Each pound of soil organic matter in the soil can hold 18-20 pounds of water - helping make farms more resilient to periods of drought and other weather extremes.

That's why USDA has focused on helping our nation's farmers and ranchers through our campaign - called "Unlock the Secrets in the Soil." We know that soil conservation practices help farmers - but they also help mitigate the impacts of a changing climate. Efforts like these will only be stronger as we ramp up new, regionally-focused information sharing efforts.

Cover Crops:

Third, USDA agencies have started working together to make new cover cropping methods available for producers, and to ensure that our agencies are working together to ensure these options are viable. For centuries, farmers have been using cover crops to prevent soil erosion, improve nutrient cycling, sustain soils and harness many other benefits.

Cover crops also sequester a significant amount of carbon. However, some producers have encountered conflicting cover crop management issues when working with multiple USDA agencies.

For example, there was a perception that crop insurance policies did not always allow cover crops - which conflicts with the NRCS incentives to plant cover crops. Some cover crop recommendations conflict with language in the 2008 Farm Bill for how the Farm Service Agency is to give commodity payments. That's a problem.

Recently, USDA undertook an effort to ensure that farmers who plant cover crops have clarity from our Department. NRCS, RMA and FSA worked together this spring to establish a new common, science-based guidance on when cover crops should be terminated.

The Administrators of these agencies engaged stakeholders, universities, and the crop insurance industry to figure out how to make cover crop guidelines straightforward and sensible.

The result is new guidance - a new model that uses local climate data, tillage management and soil data to account for daily crop growth and use of soil moisture. With this information, experts determined the latest possible time to terminate a cover crop, to maximize carbon sequestration and at the same time minimize risk to the cash crop yield.

For this new guidance, four cover crop termination zones have been established across the United States.

These provide a regionally-appropriate approach to cover crops and the tools to identify the proper cover crop management in an area, taking into account local climate and cropping systems. We took the time needed to get this right - including truth-testing our recommendations with folks on the ground. Going forward - RMA, NRCS and FSA will all uniformly refer producers to these guidelines, and will use them to administer programs.

With this consistent, science-based cover crop guidance, farmers will have more flexibility and a greater opportunity to utilize cover crops on their operations, while staying in compliance across all USDA agencies.

They can reap the conservation and economic benefits that cover crops can provide - healthy soils and sustained food and fiber production. Producers will have a greater degree of certainty that they can use these practices, while still being eligible for crop insurance and other programs.

I would note for folks that information on all of these new steps - our regional hubs, our new tools from NRCS, and these new steps with regard to cover crops - are available at our web site, http://www.usda.gov/.

These new tools and actions represent our comprehensive strategy for helping agriculture adapt to modern challenges.

We'll continue to provide world-class research and tools for academic experts. Our plan reflects an understanding that farmers and ranchers have always been on the front lines of adaptation. We don't just want to tell folks there's a problem - we want to provide them with real information to create real solutions for specific threats.

These efforts are also directly related to maintaining our abundant, productive agricultural sector, an effort that doesn't stop at the edge of the field.

I want to share with you one more facet of this work that involves Americans from all walks of life. We spoke earlier about the tremendous productivity of American agriculture that keeps costs low for us at home, while helping us export around the world. Here's the bad news: estimates show that at least 30 percent of our food supply ends up wasted - and an estimated 133 billion pounds of food each year is not consumed.

First, it's a major food security issue from the perspective that wasted food could be helping feed folks at food banks and shelters.

Second, it's a natural resource issue. All of the resources that went into producing that wasted food - including the land, labor, water, pesticides, and fertilizers - could have been saved or gone to uses of higher value for society.

And third, it's a climate change issue. EPA estimates that in the United States, food is the single largest component of municipal solid waste going to landfills - and that landfills are the third largest source of methane. You do the math. By reducing the amount of food we toss into the trash, we can help reduce methane emissions.

Yesterday, I joined EPA Administrator Bob Perciasepe and leaders from across the U.S. food sector to announce the U.S. Food Waste Challenge. Together, we're calling on Americans across the nation to help us reduce the amount of food that ends up at the landfill, recover food that could be used to feed those in need, and recycle food waste wherever we can.

Right now, we have a few founding partners onboard - and a predecessor effort by EPA has about 200 participant organizations. Our shared goal is to build momentum to fight food waste - by getting 400 partner organizations onboard the U.S. Food Waste Challenge by 2015, and 1,000 by 2020.

At USDA, we're going to do our part. We've pledged to reduce waste in the school meals program, take new steps to educate consumers about food waste and food storage, and develop new technologies to reduce food waste. USDA will also work with industry leaders to streamline procedures for donating wholesome meat and poultry products that are misbranded. And at our food labs we will find better solutions for food waste by recycling food samples that have been inspected.

By giving some extra thought to what we buy and how much we need, all of us can reduce our contributions to the nation's landfills. It's an adaptation strategy that everyone can help to create.

All of this work represents the beginning stages and the first steps of an overarching focus on adaptation in the years ahead.

Over the coming months and years, USDA intends to build partnerships with landowners - work with conservation groups, Tribes and local governments - and engage with ordinary Americans. We'll take more steps to mitigate and adapt to these challenges here in the United States, and around the world, and I look forward to sharing additional plans with you in the future.

The bottom line today is that America's long history of innovation must continue.

Our farmers and ranchers have proven over the course of generations that they're up to the task. And USDA has a strong history of support for their efforts.

This will not be a short-term task, it won't be simple, but it's doable. That's why we need to prepare for the future today - to begin asking how we can work together to prepare agriculture for new challenges - and thereby put our food supply on a strong footing in the years to come.

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