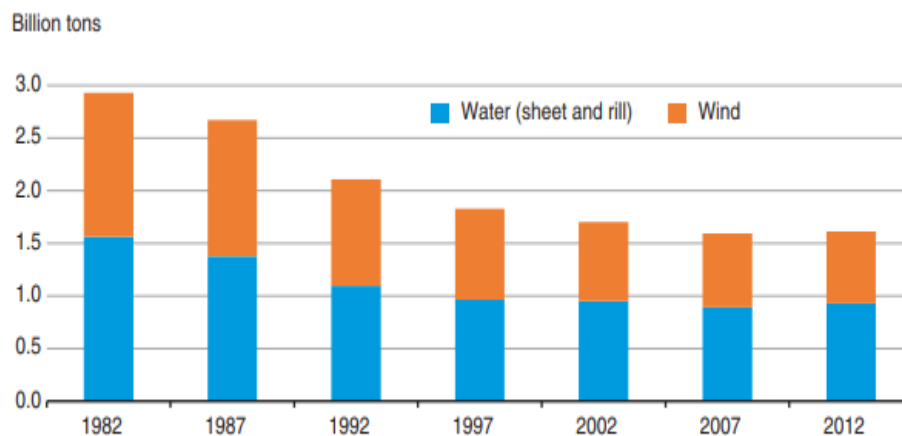


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Farmers often, either through their own expense or through participation in federal cost-share programs, voluntarily adopt conservation on their working lands. These practices through mitigation of natural resource concerns on the farm improve the resiliency of agricultural systems and impact the long-term sustainability of the production enterprise. Although widely agreed among farmers that such practices can improve soil health, water quality, and environment, in general, adoption of these practices is relatively minimal and vary significantly by crop and region¹. Conservation practices are often considered not suitable with current production practices citing uncertainty with crop insurance compliance, nature of soils and geography of the land, and expensive changes to existing equipment. Nevertheless, in the region that has implemented conservation, significant reductions in soil erosion is achieved. Soil erosion reduced by about 30% over the last 30 years in the United States.²

Soil erosion on cultivated cropland, 1982-2012



Source: USDA, Economic Research Service analysis of the Natural Resources Conservation Service's National Resources Inventory (NRI) data.

Some of these barriers can be corrected with minimal changes to existing policy such as linking conservation adoption to crop insurance. The premise behind such a policy is that conservation

¹ Conservation-Practice Adoption Rates Vary Widely by Crop and Region. Economic Information Bulletin Number 147. December 2015

² Conservation Compliance: How Farmer Incentives Are Changing in the Crop Insurance Era. Economic Research Report Number 234. July 2017.

practices can reduce the vulnerability of production systems to natural events and can minimize the risk of production loss and benefit the natural systems. Given that federal crop insurance is the biggest safety net program to manage risk for yields and revenues of farmers of the United States, associating crop insurance to such programs can improve adoption of conservation.

Moreover, conservation benefits have public good characteristics, i.e., the benefits achieved from conservation adoption, which ultimately reduce soil erosion and improve water quality can be enjoyed by not just the farmer but by other individuals. As a result, the positive externality that is created through conservation adoption can be effectively internalized through the incentives or premium subsidies that account for conservation implementation. Similarly, failure to adopt conservation on vulnerable lands that ultimately impact the ecosystems can be penalized through ineligible for conservation subsidies and/or insurance premiums.

Agencies under the USDA, the Natural Resources Conservation Service (NRCS) and Farm Service Agency are focused on conservation of natural resources on agricultural lands. These agencies provide loans, commodity subsidies, and conservation incentives for protecting the working lands from natural resource depletion either through human-induced or non-human induced activities. The NRCS distributed a total of \$4.6 billion in general Environmental Quality Incentives Program (EQIP) obligations from 2009 to 2015.³ Given that implementation of voluntary conservation happens through utilization of such incentives and in some cases without using the incentives, these funds are usually not sufficient to optimize environmental benefits. In addition, often these EQIP funds are allocated to address issues based on regional needs and historical funding amounts rather on broader environmental concerns, leading to underinvestment in management practices that can adequately address the resource concerns, albeit such allocations over the years is also linked to the poor availability of data on resource concerns. On the other hand, some state offices have adjusted payment rates for certain conservation practices to stretch EQIP dollars. Given the circumstances, linking crop insurance subsidies to conservation practices can fill the funding gap and/or provide adequate incentive to adopt appropriate conservation practices on the ground. Such a policy can even enhance adoption as practices implemented through personal funds or through lower-payment rates can obtain crop insurance premium subsidies, which the farmer can account toward balancing the enterprise budget.

As we look forward to a new crop year, a policy (ies) reflecting enhancement of conservation on the ground to address national conservation priorities either through improved funding or through utilizing existing mechanisms can make the nations agricultural systems more resilient to adverse economic and environmental disturbances.

³ GAO. AGRICULTURAL CONSERVATION-USDA's Environmental Quality Incentives Program Could Be Improved to Optimize Benefits. April 2017