

[This is the tenth post in a series expressing my view of why California's actions on climate change are so important and how they will change the world. The [introductory post](#) provides an overview and some general context.]

The issue of scale is intertwined with political will, discussed in [my prior post](#), but also poses separate challenges. If solar power had more political support, it would scale more quickly. As noted in the previous blog post, Florida and other states have slowed the uptake of renewables because incumbent utilities and their political allies have fought against renewables. But it is also the case that the uptake of renewables in places like Indonesia and India face fundamental hurdles of basic education and training in the use, operation, and maintenance of the systems. And without that basic education and training, those systems are doomed to failure.

Getting more quickly to scale with effective climate solutions is essential.

For example, as the [USDA website](#) states succinctly:

Agriculture could play a larger role in reducing greenhouse gas (GHG) emissions and lowering atmospheric carbon dioxide concentrations by sequestering more carbon. Farm operators can change production practices or land uses to increase the carbon stored in soil or vegetation. Other changes in production practices and land uses can result in reduced emissions of potent non-carbon GHG, such as methane and nitrous oxide. In addition, agriculture can produce biofuels, which can substitute for fossil fuels and thereby potentially reduce greenhouse gas emissions across multiple sectors.

Many of these actions are cost effective and doable now, but are not in common practice. Practices as basic as moving cattle more quickly from grazing areas before the grass is consumed to the nub, are not in general usage. We need to identify the mechanisms that will move action more quickly and more substantially. It will likely take a combination of education, incentive, regulation, and buy-in by trade groups, corporations, industry leaders, and the public.

We also need to do a better job at identifying and supporting actions, strategies, technologies that show strong promise. That will require a more concerted effort by government, academia, industry, and foundations to work together and identify both the most promising initiative and the barriers to success and scale. Various partnerships -

public-private, government-academic, foundation-industry, and a combination of all - are needed to speed action and results. In the next blog post, I will discuss one set of mechanisms for faster action and scale.

Next blog: Sub-National Action

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