



Diwali ban: The real issue is elsewhere

Firecrackers need not completely disappear from Diwali celebrations

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As Diwali approaches, attention is once again focused on New Delhi's air quality and the factors that have been contributing to its horrible state during this season. The Supreme Court's ruling banning firecrackers is one more manifestation of the pressure on the system to do something – anything – to address the problem. From a policy perspective, though, it is necessary to keep the larger picture in mind. While New Delhi's problems may be newsworthy, the fact is that a major contributor to the problem, crop residue burning, has an impact not just in Delhi but across the region. Among other considerations, long-term health implications warrant a public policy response by way of structural solutions.

to uproot the paddy plants completely, leaving the land ready for the next sowing. Combine harvesters, on the other hand, leave a stubble, which then needs to be uprooted manually. Steady increases in wages have made this unviable, to which the alternative is burning. If New Delhi experiences such an enormous impact, one can only shudder at the effects this is having on the residents in these areas. The firecracker ban is unlikely to make much difference to their quality of life.

The proximate causes of the crop residue burning problem are well understood. Manual harvesting used

State-based regulatory frameworks

So, what can we think of by way of structural solutions? Since the US agricultural sector was a pioneer in the use of combine harvesting, we thought it might be useful to look at its experience. A key component of the US response over the years has been that of very tight regulatory frameworks designed and enforced at the state level. Burning the residue may have been a factor, but over the years, state administrations have worked to prevent and deter actions that could directly degrade the environment. Of course, large holdings and small populations made this framework relatively easy to implement. Obviously, we don't think that this offers any immediate solutions in India. But, since we're thinking long term, it is necessary to start building up appropriate regulatory frameworks within which boundaries, incentives and penalties can be built in with consistency and transparency.

Enhanced technology and possible subsidy mechanism

The second lesson from the US experience is on technology. High labour costs were obviously a consideration in this environment as well, so technological solutions logically focused on being able to sow the next crop without actually removing the residue. The key development in this regard was the tiller-less plough, which facilitates sowing with a still-standing residue. This technology appears to be in relatively widespread use in the US, with no apparent impact on land productivity. Whether it will work in Indian conditions — e.g., what impact will the

standing residue have on the next crop needs to be tested. The costs of implementation and the design of a possible subsidy mechanism, which takes into the account the positive externalities from stopping the burning also need to be explored. This is perhaps an agenda that the agricultural research establishment can pursue on a priority basis, if it isn't already doing so. If it is, then the activity and its outcomes should be made more visible.

State-supported labour-support system

Of course, capital-intensive technology is a natural outcome of a labour shortage situation. In a sense, this is what prevails in the concerned regions. Farmers have been asking for direct compensation by government to be able to hire workers to pull out the residue. From a policy perspective, the question is: what is the least cost way of deploying workers in enough numbers to make an appreciable difference to the extent of burning? A number of alternatives can be assessed. For example, could MGNREGA resources be used to deploy workers in the few weeks between the harvest and the sowing to do the job? How would this be monitored? Alternatively, the states affected could set up job corps (which could be used for other purposes at other times) to carry out this task when required. At what wage level would people be willing to participate in this? And, how could they be kept productively occupied for a reasonable part of the year? If farmers were asked to directly hire workers with a wage subsidy, an Aadhar-based direct payment mechanism based on certification of the work actually done could be considered.

In sum, we believe that an appropriate response should have both long-term and short-term components. The former will comprise combine the formulation of a regulatory and enforcement framework and, hopefully with quicker payoffs, adaptation of technological solutions that can accommodate the standing residue. The latter will focus on the efficient deployment of workers to pull out the residue, with at least some part of the cost being borne by the state. Firecrackers need not completely disappear from Diwali celebrations.

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