HOW IS AGRICULTURAL RESIDUE INCREASING THE RATE OF GLOBAL WARMING AND WHAT ARE ITS CONCEQUENCES?

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Abstract

Burning agriculture residues has multiple negative effects including local air pollution, increase in black carbon and contributions to regional and global climate change but farmers in many parts of country still set fire to cultivated fields to clear weeds and waste before planting new crops. This research seeks why farmers burn rise residue. Rice residue dues has to be burned, removed or incorporated into soil order to prepare field for the next wheat crop. The most favoured residue management practiced by farmers of Nepal is complete burning of residues. Open burning of agricultural remnants is a major source of air pollution which is poorly characterized in south Asia, mostly in Nepal. Crop residue is the fourth largest fuel after coal, oil and natura gas. Crop residue burning is also one of the major cause of global warming.

Introduction

Nepal is am agricultural country. About 66% of farmers are engaged in agricultural activities. Out of 147,181 square kilometres land area of Nepal about 41,210 square kilometres is agriculture land. The rice and wheat cropping is the dominant cropping system in many districts of Hilly and Terai region . After crop cultivation , farmers burn down crop residue which causes local air pollution ,increase in black carbon , health problems and so on. Farmers in Nepal also adopt variety of residue management practices. Some farmers have been using machinery such as rotavator in order to incorporate the residue into soil .but all the farmers of Nepal are not able to afford.

Research Question

1. What quantities of agricultural residue are being burned as well as used for other purpose?
2. What is the main cause of smog appeared in Kathmandu and which type of gases in how many tonnes releasement is being contributed by burning residue?
3. What Nepal government and Nepal agricultural research council are doing to minimize it?
4. What type of technology and method are being used to stop this practice?
5. Is there a correlation between drastic changes in seasonal cycle and crop burning residue?

Research Methods

We have done this research by visiting places, interviewing the farmers about how they are managing the crops residues and if they know the correct methods of managing crop residues. We also took the data from other the secondary sources. We even did research on how farmers are forced to burn the crops due to their financial condition. We used primary data from a survey of 388 farming households across three districts of the Nepal terai: Nawalparasi, Rupandehi, and Kapil Vastu applying a recursive bivariate probit model.

CONCLUSIONS

So as a conclusion, nowadays few farmers are aware about affect happening due to burning crop residue. Therefore they are trying to use the modern technology to save our environment. They are saying that the machines which are being subsidised like choppers and mulchers are not only the solutions for this. Only the chaff cutter machines are the solutions. The only problem here is that the rich farmers can afford all the equipment to manage the stubble but an ordinary farmer does not have resources. Hence the government should provide subsidy on these machines.
https://youtu.be/9H8V94tonYs

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