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Efficient utilization of short rotation tree biomass for cooking in India

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The human as well as livestock population increase is phenomenal in developing world including India. The survival of this huge population certainly depends on the carrying capacity of the natural systems, which is essentially determined by the nature itself. Present state of the forests can satisfy the needs of certain population and the demand for wood has rapidly outstripped the sustainability of forests. The fuelwood requirements in the developing world is approximately 80 per cent of total wood requirements and is the major cause of forest degradation. Therefore, there is need to maximize the productivity on one hand and protection/extention of the area on another hand. Wood substitution is an option including shifting from fuelwood for cooking to fossil fuels but in the changing climatic situation, this option is short term alternative. There is need to produce more and use the same efficiently to reduce the demands. Millions of households across the country are using crude cooking stoves for their daily needs which are not only energy inefficient but detrimental to women health also. It has been the policy of Government to encourage trees outside forests to minimize the pressure from forests through meeting requirements outside forests, which is possible through intensively managed short rotation forestry and also some initiatives have been taken to increase the fuelwood efficiency through improved cooking stove, which are working successfully. Woodfuel remained the most important source of household energy in India but regular attempts have not been made to improve the efficiency in its use. This paper will focus on potential of short rotation forestry plantations for energy consumption and its efficient use at domestic scale. This has three fold interrelated economic, environmental and social impact.

Key words: Short Rotation Forestry, trees outside forests, wood energy, cooking stove