ABSTRACT

The present research work aims at developing Mathematical Models using various Operations Research Techniques such as Linear Programming and Goal Programming so as to apply in the areas of rural energy planning. In this context an attempt has been made to assess the availability of surplus biomass in Nilakkottai Block of Dindigul District, Tamil Nadu, India. Using this as data base, the developed optimization models have been implemented so as to generate the optimum production of surplus biomass for establishing biomass based power plants in the study area. It is established and demonstrated that this kind of decentralised energy planning can meet the complete power requirement and make the study area self-sufficient in energy consumption.