

## **BIOMASS ENERGY: PRESENT STATUS, FUTURE OPPORTUNITIES AND CHALLENGES IN SRI LANKA**

**T.W.M.T.W.Bandara**

Senior Lecturer

Department of Geography

University of Peradeniya

*Sri Lanka is a country with few energy resource of its own. Hydropower energy and biomass, including fuel wood, are the only indigenous resource available. Biomass energy is the major source of energy for majority of the poor in Sri Lanka. It constitutes 51% of the total energy supply in Sri Lanka and nearly 80% of the populations still depend on fuelwood and other forms of biomass for their household cooking. Biomass Energy field is an area of considerable complexity particularly because it is linked to several development sectors of which energy is only one component. As a result, the depth and scope of the issues involved are often not seen in the correct perspective and fixing the responsibilities of policy interventions becomes difficult. It is therefore necessary to correctly identify the major stakeholders in the field of biomass for any effective interventions.*

*The objective of this study is to identify the present status of biomass energy consumption and challenges for the future development of biomass energy in Sri Lanka. Data were collected form primary and secondary data sources and data analyzed by using Geographical Information System soft ware and statistical data were analyzed by using SPSS soft ware.*

*In order to increase the supply of bio energy, agro forestry and home garden system are to be promoted by improving the security of land and tree tenure, and the provision of extension, credit, low cost seedlings, and other support services. The support efforts should be targeted at areas, or groups of people, which are already suffering from energy scarcity. Special attention should be paid to improving access to natural resources, e.g. through developing joint forest management systems, or allocating land to the landless. Fuel wood and other energy are being used wastefully, mainly in places where these resources are undervalued. As fuel wood prices rise, people and industries will gradually start to respond to the new situation by improving efficiency or switching to other fuels. The state should aim at reforming policies that distort market prices, and take measures to reduce open access to the state forests by placing all the land under effective management by the local communities, user groups and other resource managers including the Forest Department, with clearly defined rights and responsibilities which can be enforced. The state should try to collect at least a small fee for collected fuel wood in the lands remaining under the state management. The state should also promote energy conservation by carrying out and supporting research on methods for improving*

*energy efficiency, funding energy audits, providing credit services for industries that want to invest in new energy saving technology, and promoting production of improved cooking stoves. Challenges to develop the biomass energy are development of non-forest land by integrating tress through community participate, enhancing of production to meet increasing demand for subsistence & industry, to avoid risks – health risks related to outdoor work place, head loading, combustion air pollution, produce energy to meet multiple needs, produce biomass consistently as a row material to produce clean energy, biomass as a product with commercial value.*