DOMESTIC FUELS AND DEVICES FOR COOKING— PRACTICES, PROBLEMS, POLICIES AND PERSPECTIVES

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C E R T I F I C A T E

This is to certify that the thesis entitled, "DOMESTIC FUELS AND DEVICES FOR COOKING - PRACTICES, PROBLEMS, POLICIES AND PERSPECTIVES", submitted by SMT. SARALA GOPALAN, has been prepared under my supervision in conformity with the rules and regulations of the Indian Institute of Technology, Delhi. The research report and results presented in this thesis have not been submitted for any degree in any other University/Institution.

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A C K N O W L E D G E M E N T S

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Dedicated
to the
victims of
the energy crisis.

ABSTRACT

The rapid depletion of traditional sources of energy noticed in recent years, and the burgeoning demand for the same, are causes of serious concern. The worst hit by this crisis are the teeming millions of the developing countries, majority of whom are poor. The need of the hour is conservation of existing sources of energy including measures of economies in their use; development of improved technologies, and identification of new sources of energy. The major characteristics of energy consumption for cooking identified in this study are :-

(i) The consumers of traditional fuels derive much less useful energy than those using non-traditional fuels;

(ii) The consumers of traditional fuels use significantly larger quantities of total energy (three to five times more) as compared to consumers of non-traditional fuels;

(iii) There is a great deal of wastage of energy in the use of devices for traditional fuels as they deliver only a small part of the heat content of the fuel to the cooking pot;

(iv) The performance of the devices using traditional fuels varies with the fuels;

(v) The performance of the device, vessel and fuel together as a total system varies in different combinations;

(vi) There is a large scope for conserving energy in cooking by modifying cooking practices.

The strategy attempting to resolve issues relating to energy availability for cooking has to be based on a systems approach, integrating the various components in the system. It has necessarily to be multi-disciplinary, area and time specific. If care is not taken to identify all the factors in the Domestic Cooking Fuel Nexus in a particular situation, general prescriptions may turn out to be irrelevant.

The participation of the user in the introduction of new technologies, and the acceptance of the innovation by the users is most essential for the improved systems to take roots.

Considering the inequities inherent in different socio-economic situations, different systems of pricing for different fuels, need for conservation of energy, need for technological changes and know-how to apply them, need for extension education for improved cooking practices etc. - a comprehensive National Domestic Cooking Fuel Policy should be evolved with a series of strategies to suit specific eco-agricultural situations. Strategies based on such a policy will help transition from a low efficiency to a high efficiency regime of fuel use. They would also help an orderly shift along a directed course rather than chaotic drifts in panic to survive somehow !

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