ENERGY CONSUMPTION

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Energy is used to do work. It is a basic requirement for in the form of cooking, heating and lighting. At the same time, it is a vital input in production processes such as agriculture, industry and transport. Distinction between developed and developing countries is visible. With respect to the source of energy as well as while developing countries mostly depend on non-commercial fuels, developed countries mostly on commercial fuels. Energy holds great significance at international, national and household levels. Energy is a basic natural resource and as such, in the absence of appropriate supply of energy, the aspiration of the process of economic development inevitably demands higher levels of energy consumption.

Energy sources used today can be broadly divided into two groups: commercial and non-commercial. Energy sources include coal, oil, natural gas, and non-commercial sources such as firewood, vegetable waste, and animal waste. In the beginning of civilization, wood was the main source of fuel. Later, coal was the first fossil fuel. Followed by petroleum, discovered commercial sources of energy except hydroelectric power. While non-commercial sources of energy are renewable.

Rural energy problems assume greater significance than urban ones, because it is basically a problem of survival of the rural people. The rural energy problem is multidimensional with various aspects such as social, economic, technological, environmental, and ecological. For instance, social life can be disrupted by energy scarcity in rural areas. It may result in rural poverty reducing their energy consumption and sometimes giving up other basic requirements of life. Another problem is with regard to the time involved in collecting fuel wood or its substitution like twinges and leaves.

Economic aspects of the problem are more severe. Energy scarcity pushed up energy prices, which, in turn, reduce the real income of people. Beside, this hike in energy prices may get reflected in the general price level. Yet another possibility is that fuel wood scarcity, especially in rural areas, may result in a shift from costlier fuel (firewood) to cheaper once (agricultural waste, straw, sugarcane). This causes diversion...
of straw from its traditional use as fodder, dung as manure and agricultural waste as organic manure. This may adversely affect the agricultural sector.

Energy is an essential input for economic development. However, the consumption of energy is comparatively low in India. Its demand steadily increases with the growth of the economy. A number of researches have observed a positive correlation between economic development and demand for energy. The consumption of energy is used for domestic uses and public lighting is also increasing.

Economic development is also seen to have been accompanied by the substitution of one form of energy to another. As an economy develops, its demand for energy increases and its consumption pattern in terms of energy forms and energy sources also changes. But the stock of known viable sources of energy supply, particularly fuel, are limited and to a large extent non-renewable. Further, the commercial exploitation of energy sources and supply aspects of energy sources involves large investments and long gestation. These and other considerations emphasize the need for taking a long run review on demand and supply aspects of energy.

**OBJECTIVES**

1. To study the pattern of energy consumption among households.
2. To study the causes of increase in energy consumption.
3. To study the measures to reduce consumption and to save energy.

**METHODOLOGY**

This study is based on both primary and secondary data. Main source of study are based on primary data. And the data is collected from 60 households of Vatanappally panchayat in 2019. Primary data collected by personal interview the respondent by using a well-structured scheduled. The secondary data were collected from various sources like journals, books, and different internet sites.

Collected data has been classified into tables and analyzed with the help of some simple statistical tools.
SCOPE

The study objected that the causes of increase in energy consumption among households and the measures
to reduce consumption and to save energy with 60 samples in the year 2019. It is an environmental need to
reduce energy consumption. Global warming is becoming more of a current focus, and to reduce its impact
we need to reduce our energy consumption. Using energy emits greenhouse gasses, which contributes to
global warming.

While an individual may think that they could not have an impact on the environment, they most certainly
can the average household produces 14000 kg of greenhouse gasses per year. If everyone does small things
to make a different to our environment, we can make huge difference. So the study about the topic is very
important and also the study is needed to take the valuable measures to reduce consumption of energy in
households.

SIGNIFICANCE of the Study

The objective behind the study of energy consumption in Kerala is to understand the paternal problems of
energy consumption in our daily life. Understand how the household utilize these energy for their daily
routine and how to reduce wastage of energy are important for measuring the energy needs of a society. As
far as Kerala experienced as the state with high of life, high rate o literacy etc, but still we are not very
much bothered about the pattern of our energy consumption

Energy plays a vital role in the socio-economic development and human welfare of a state. Efficient,
reliable and competitively priced energy supply is a prerequisite for accelerating economic growth and
human development. A part from its contribution to economic development, it contributes significant to
revenue generation, employment, enhancing the quality of life and reducing poverty. Making available the
required quantity of power of acceptable quality at affordable price is one among the prime responsibilities
of government. For any developing country, therefore the strategy for energy development is an integral
part of the overall economic strategy.

More recently the need to reduce greenhouse gas emission, especially carbon dioxide has emerged as one
of the significant challenges in the power sector. The imperative need for climate change mitigation
measures is only set to grow in the year to come. To meet this challenge, the emphasis on non fossil fuel
sources of energy especially the renewable, wind and solar has increased dramatically in the last few years.

To understand electricity consumption pattern of domestic consumers, the sample population was grouped
into four based on household income.
ENERGY SECTOR IN KERALA

Kerala is bestowed with huge hydropower potential by way of plentiful of rain and many rivers. However, out of the estimated hydro potential of about 6000 MW, only about 2040 MW have been harnessed so far in the state due to denial of environmental and forest clearances. As of October 2017, the state had a total installed power generation capacity of 4,990.81 MW, of which 2,186.48 MW was accounted for by state utilities, 1,829.76 MW by central utilities and 974.57 MW under private sector. Thermal power contributed 2,416.72 MW to total installed power generation capacity. Hydropower (1,881.50 MW), nuclear power (362.00 MW) and renewable power (330.59 MW) are the other main energy sources. Kerala state utilities, which account for 43.81% of overall capacity, generate 86.05% of the energy through thermal and renewable power generation plants.

Kerala is among the prominent Indian states to have achieved 100% rural electrification. The rural areas or villages in the state were electrified under a scheme launched in 2015, “Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)“. The operational electrification scheme, that is, Rural Electricity Infrastructure and Household was subsumed in the new scheme. As on July 31-2017, a total sum of US$ 33.8 million was sanctioned and US$ 32.97 million was disbursed under the DDUGJY scheme for rural electrification of 29 projects in the state. Under the DDUGJY scheme, 14 new projects have been sanctioned for US$ 76.16 million as of July 2017.

Conclusion

The study it is concluded that an increasing trend of energy consumption in Vatanappally panchayat. The changes in energy consumption are come from changes in their life style. At the same time it is necessary for saving energy and to avoid wastage. Because the energy and the sources of energy are precious, that plays a vital role in our everyday life.