

Impact of PM Surya Ghar Yojana on the Economic and Social Development of Rural Families in Amravati District: A Study

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Abstract

In India, increasing energy demand, shortage of traditional energy resources, and environmental problems have made renewable energy very important. To solve these issues, the Government of India started the PM Surya Ghar Yojana. The main objective of this scheme is to increase the use of solar energy in rural and urban households and provide affordable and eco-friendly electricity to citizens. In rural areas especially, rising electricity bills, irregular power supply, and financial problems are major concerns. This scheme is becoming an effective solution for these issues.

This research studies the social and economic impact of PM Surya Ghar Yojana on rural families in Amravati district. Both primary and secondary data were used for the study. Information was collected through questionnaires, interviews, and observation methods. The study found that the scheme helped rural families reduce electricity expenses, improve their standard of living, support students in education, and promote environmental protection. The research clearly shows that PM Surya Ghar Yojana is playing an important role in the sustainable development of rural areas.

Keywords: PM Surya Ghar Yojana, Solar Energy, Rural Development, Economic Impact, Social Development, Amravati District.

Introduction

Energy is considered the backbone of economic and social development in any country. Industrial growth, agriculture, education, healthcare, and daily activities depend heavily on energy. In India, due to increasing population and industrialization, the demand for energy is continuously rising.

Traditional energy sources such as coal, petroleum, and natural gas are limited and also create environmental pollution. Therefore, the use of renewable and eco-friendly energy sources has become necessary. Solar energy is a clean and renewable source of energy obtained from sunlight and is considered very important for the future.

In rural areas, problems such as irregular electricity supply, load shedding, and increasing electricity bills are commonly seen. To solve these problems, the Government of India launched the PM Surya Ghar Yojana. Under this scheme, financial

subsidy is provided for installing solar panels on rooftops. Because of this, rural families can get electricity at a lower cost.

The impact of this scheme is also increasing in rural areas of Amravati district. Therefore, this research studies the economic and social impact of PM Surya Ghar Yojana on rural families.

Objectives of the Study

- To study the use of PM Surya Ghar Yojana in rural areas of Amravati district.
- To analyze changes in electricity expenses after the implementation of the scheme.
- To study the social improvements in rural life due to the scheme.
- To examine the contribution of solar energy towards environmental protection.
- To study awareness among rural citizens regarding PM Surya Ghar Yojana.

Research Methodology

The research paper titled “Impact of the PM Surya Ghar Yojana on the Economic and Social Development of Rural Households in Amravati District: A Study” analyzes the impact of the scheme on the standard of living, economic savings, and social transformation of rural families. The study adopts descriptive and analytical research methodologies. The required data for the research has been collected from beneficiary households in rural areas of Amravati district, government reports, various research papers, websites, and other secondary sources. The main objective of this study is to examine in detail the savings in electricity expenses, awareness regarding solar energy, and the social and economic development achieved among rural households through the implementation of the PM Surya Ghar Yojana.

Introduction to the Subject***PM Surya Ghar Yojana: An Overview (PMSGY)***

The Government of India launched the PM Surya Ghar Yojana to provide affordable and environment-friendly electricity to common people. Under this scheme, financial assistance is provided for installing solar panels on rooftops.

Main Objectives of the Scheme

- To reduce electricity bills
- To increase the use of solar energy
- To protect the environment
- To reduce energy problems in rural areas

Through this scheme, citizens can generate their own electricity. In some places, extra electricity can also be sold to electricity distribution companies.

Features of PM Surya Ghar Yojana (PMSGY)

1. Government subsidy for installation of solar panels.
2. Reduction in household electricity bills.
3. Eco-friendly and pollution-free energy source.
4. Better and continuous electricity supply in rural areas.
5. Long-term financial benefits.

Need for Solar Energy in Rural Areas

In rural areas, problems like power cuts, load shedding, and rising electricity bills are common. Electricity is very important for farming and

household activities. Solar energy can help reduce these energy-related problems to a large extent.

Economic Impact of PM Surya Ghar Yojana (PMSGY)**1) Savings in Electricity Expenses**

The use of solar panels has reduced monthly electricity bills of rural families. This has reduced the financial burden on households.

2) Support for Agriculture

Solar energy is also being used for agricultural activities, which helps reduce irrigation expenses.

3) Employment Generation

Installation, repair, and maintenance of solar panels have created employment opportunities in rural areas.

4) Long-Term Financial Benefits

Although there is an initial investment, solar energy provides long-term savings in the future.

Social Impact of PM Surya Ghar Yojana (PMSGY)**1) Improvement in Living Standards**

Continuous electricity supply has made rural life easier and more comfortable.

2) Benefits for Women

Solar energy has reduced the time and effort required for household work, helping women significantly.

3) Support for Students' Education

Students can study properly at night due to better lighting facilities, improving educational performance.

4) Positive Impact on Health

Reduced use of traditional fuels has decreased smoke and pollution, improving health conditions.

5) Environmental Awareness

Awareness regarding environmental protection is increasing in rural areas.

Environmental Benefits of PM Surya Ghar Yojana (PMSGY)**1. Clean and Eco-Friendly Energy Source**

Solar energy is a clean and renewable source of energy. It does not produce smoke, harmful gases, or waste materials like traditional energy sources. Therefore, it is considered environmentally friendly and safe for human health.

2.Reduction in Air Pollution and Carbon Emissions

Electricity produced through solar panels reduces the use of coal and petroleum-based electricity. As a result, carbon emissions and air pollution are reduced, which helps in controlling global warming and climate change.

3.Reduced Use of Traditional Fuels

In many rural areas, people depend on kerosene lamps and other traditional fuels during power cuts. Due to solar energy, the use of these fuels is decreasing, which reduces smoke and indoor air pollution in households.

4.Support for Environmental Protection

The PM Surya Ghar Yojana encourages the use of renewable energy and supports environmental conservation. Increased use of solar energy helps in protecting natural resources for future generations.

5.Reduced Dependence on Non-Renewable Energy Sources

Solar energy decreases dependence on coal, diesel, and petroleum, which are limited in quantity and harmful to the environment. This helps in promoting sustainable energy development in rural areas.

Challenges in the Implementation of PM Surya Ghar Yojana (PMSGY)

- 1.Many rural families do not have proper awareness and information about the scheme.
- 2.Technical facilities and trained workers required for installing solar systems are limited in rural areas.
- 3.Lack of coordination is seen among beneficiaries, electricity distribution companies, banks, and government agencies.
- 4.Maintaining the quality and regular servicing of solar panels and related equipment becomes difficult for many families.
- 5.Beneficiaries face problems in subsidy procedures, document submission, and approval delays.
- 6.The high initial installation cost limits the participation of economically weaker rural families.

Future Scope of Solar Energy in Rural Development

1.Energy Self-Dependent Villages

Solar energy can help rural villages become energy self-dependent. Families can produce their own electricity through rooftop solar panels and reduce

dependence on traditional electricity supply systems.

2.Solution to Load Shedding and Power Cuts

In many rural areas, irregular electricity supply and load shedding are common problems. Solar energy can provide continuous and reliable electricity, improving daily life in villages.

3.Use of Solar Energy in Agriculture

Farmers can use solar pumps, solar-powered irrigation systems, and other farming equipment. This can reduce dependence on diesel and lower agricultural expenses.

4.Reduction in Household and Farming Expenses

The use of solar energy can reduce electricity bills for both households and agricultural activities. This helps rural families save money and improve their financial condition.

5.Employment Generation in Rural Areas

The increasing use of solar energy can create job opportunities in solar panel installation, repair, maintenance, and technical services. Rural youth can get employment and skill development opportunities in this sector.

6.Development of Smart Villages

Solar energy can support the development of smart villages by providing electricity for street lights, schools, health centers, water supply systems, and small rural industries.

7.Government Support and Awareness Programs

Government subsidies, training programs, and awareness campaigns can encourage more rural families to adopt solar energy in the future. This will increase the overall use of renewable energy in villages.

8.Improvement in Education and Healthcare

Continuous electricity supply through solar energy can improve educational and healthcare facilities in rural areas. Students can study properly at night, and health centers can function more effectively.

9.Growth of Small Businesses and Rural Economy

Small shops, dairy businesses, and rural industries can use solar energy for their daily operations. This can increase income opportunities and support rural economic development.

10.Sustainable Rural Development

Solar energy is a renewable and pollution-free source of energy. Increased use of solar power can support sustainable and long-term development in rural India while protecting the environment.

Conclusion

PM Surya Ghar Yojana is proving to be an effective solution to energy-related problems in rural areas. The scheme has made an important contribution to the economic and social development of rural families in Amravati district. Positive impacts such as savings in electricity expenses, improvement in living standards, support for students' education, and environmental protection were observed in this study.

For sustainable development of rural India, increasing the use of solar energy is necessary. If the government increases awareness programs, training, and financial support, PM Surya Ghar Yojana can become more effective.

Suggestions

1. Awareness programs regarding solar energy should be conducted in rural areas.
2. More subsidies should be provided for installation of solar panels.
3. Technical training centers should be started in rural areas.
4. Schools and colleges should provide education about solar energy.
5. Solar energy awareness campaigns should be conducted at Gram Panchayat level.

References

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