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# The Impact of Pradhan Mantri Ujjwala Yojana on Women Empowerment in India with Special Reference to Rajasthan

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**ABSTRACT:** The Pradhan Mantri Ujjwala Yojana (PMUY) is one of the most significant social welfare and energy-access schemes launched by the Government of India. Introduced in May 2016, the scheme aims to provide clean cooking fuel in the form of Liquefied Petroleum Gas (LPG) connections to women belonging to economically weaker households. Before the implementation of PMUY, millions of rural women in India relied on traditional fuels such as firewood, coal, cow dung, and agricultural waste for cooking. These traditional fuels caused severe health problems, environmental degradation, and gender inequality. The scheme has played an important role in improving women's health, reducing drudgery, enhancing social dignity, and promoting economic empowerment. Rajasthan, being one of the largest states with extensive rural and desert regions, has witnessed significant social and economic changes due to PMUY implementation.

This research article analyses the impact of PMUY on women empowerment in India with special reference to Rajasthan. The study examines health benefits, economic impacts, environmental improvements, rural development, and social transformation associated with LPG adoption. Secondary data from government reports, Ministry of Petroleum and Natural Gas, National Sample Survey, Rajasthan government documents, and research studies have been used. The article concludes that PMUY has positively contributed toward women empowerment by improving health conditions, saving time, increasing participation in economic activities, and enhancing living standards. However, challenges such as refill affordability, irregular income, and rural awareness still affect the long-term sustainability of the scheme.

**KEYWORDS:** Pradhan Mantri Ujjwala Yojana, Women Empowerment, Rajasthan, LPG, Rural Development, Energy Poverty, Health, Economic Development, Gender Equality.

## I. INTRODUCTION

Women play a central role in household management and rural economic activities in India. However, for decades, rural women faced severe hardships due to dependence on traditional cooking fuels such as wood, dung cakes, charcoal, and crop residue. Cooking with these fuels in poorly ventilated kitchens generated indoor air pollution, causing respiratory diseases, eye irritation, and other health problems.

India's rural households, especially poor families, depended heavily on biomass fuel because of poverty and lack of access to clean energy. Women and girls spent several hours daily collecting firewood, which reduced opportunities for education, employment, and social participation.

To address these problems, the Government of India launched the Pradhan Mantri Ujjwala Yojana (PMUY) on 1 May 2016 under the Ministry of Petroleum and Natural Gas. The scheme aimed to provide free LPG connections to women from Below Poverty Line (BPL) households.

The objectives of PMUY include:

- Providing clean cooking fuel,
- Reducing indoor air pollution,
- Improving women's health,
- Saving time and labour,
- Promoting gender equality,
- Protecting the environment,
- Improving quality of life.



Rajasthan, with its large rural population and desert geography, faced major challenges related to fuel collection and household energy access. Therefore, PMUY has had special significance in the state.

## II. OBJECTIVES OF THE STUDY

The major objectives of the study are:

1. To examine the features and objectives of PMUY.
2. To analyse the role of PMUY in women empowerment.
3. To study the impact of PMUY in Rajasthan till February 2024.
4. To evaluate health, social, economic, and environmental impacts of LPG adoption.
5. To identify implementation challenges and policy issues.
6. To suggest measures for improving the effectiveness of PMUY.

## III. RESEARCH METHODOLOGY

The study is based on secondary data collected from:

- Ministry of Petroleum and Natural Gas,
- Government reports,
- Rajasthan government documents,
- National Family Health Survey (NFHS),
- Research journals,
- Newspapers,
- Energy policy reports,
- Census and NSSO reports.

Descriptive and analytical methods have been used for interpretation of data.

## IV. OVERVIEW OF PRADHAN MANTRI UJJWALA YOJANA

### 4.1 Launch and Background

The Pradhan Mantri Ujjwala Yojana was launched on 1 May 2016 at Ballia district in Uttar Pradesh. The scheme targeted poor women who lacked access to clean cooking fuel.

Initially, the target was to provide LPG connections to 5 crore households, which was later expanded to 8 crore beneficiaries.

### 4.2 Major Features of PMUY

Feature	Description
Launch Year	2016
Ministry	Ministry of Petroleum and Natural Gas
Beneficiaries	Women from poor households
Objective	Clean cooking fuel access
Fuel Type	LPG
Financial Support	Free LPG connection
Main Focus	Women empowerment and health

### 4.3 Eligibility Criteria

The beneficiaries include women belonging to:

- BPL households,
- SC/ST households,
- Antyodaya Anna Yojana families,
- Forest dwellers,
- Tea garden workers,
- Most backward classes.



**V. WOMEN EMPOWERMENT: CONCEPT AND IMPORTANCE**

Women empowerment refers to improving women’s social, economic, political, and health conditions so they can participate equally in society.

**Dimensions of Women Empowerment**

Dimension	Importance
Economic	Income and employment
Social	Equality and dignity
Health	Better living conditions
Educational	Access to opportunities
Political	Participation in decision-making

PMUY contributes mainly to health, economic, and social empowerment.

**VI. PMUY AND WOMEN EMPOWERMENT IN INDIA**

**6.1 Health Benefits**

Traditional cooking methods produced smoke containing harmful pollutants. Women exposed to smoke suffered from:

- Respiratory diseases,
- Asthma,
- Eye irritation,
- Lung infections,
- Heart-related problems.

LPG usage significantly reduced indoor air pollution.

**Table: Health Comparison Before and After LPG**

Indicator	Traditional Fuel	LPG
Indoor smoke	Very High	Very Low
Respiratory diseases	Common	Reduced
Cooking efficiency	Low	High
Kitchen cleanliness	Poor	Better

**6.2 Reduction in Drudgery**

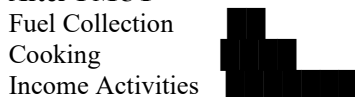
Before PMUY, rural women spent hours collecting fuelwood. LPG reduced this burden significantly.

**Chart: Time Utilisation by Rural Women**

**Before PMUY**



**After PMUY**



Women could now use saved time for:

- Education,
- Self-employment,
- Agriculture,
- Childcare,
- Social participation.



### 6.3 Economic Empowerment

PMUY indirectly contributes to economic empowerment through:

- Time savings,
- Increased productivity,
- Better health,
- Reduced medical expenses.

Women gained more opportunities to participate in income-generating activities.

### 6.4 Social Empowerment

The use of LPG improved:

- Social dignity,
- Household status,
- Living standards,
- Hygiene conditions.

The ownership of LPG connections in women’s names increased their importance in household decision-making.

## VII. RAJASTHAN: SOCIO-ECONOMIC BACKGROUND

Rajasthan is India’s largest state by area and has a large rural population. Many districts face:

- Water scarcity,
- Desert conditions,
- Poverty,
- Energy access problems.

Before PMUY, rural households in Rajasthan largely depended on:

- Firewood,
- Dung cakes,
- Agricultural waste.

Women in desert districts such as Barmer, Jaisalmer, Bikaner, Jodhpur, and Jalore travelled long distances for fuel collection.

## VIII. IMPLEMENTATION OF PMUY IN RAJASTHAN

The implementation of PMUY in Rajasthan expanded rapidly due to active participation of oil marketing companies and government agencies.

**Table: PMUY Progress in Rajasthan (Approximate till Feb 2024)**

Indicator	Status
Total LPG Connections under PMUY	More than 70 lakh
Major Beneficiary Areas	Rural districts
Women Beneficiaries	Majority
Main Agencies	IOCL, BPCL, HPCL

### Major Districts Benefited

District	PMUY Impact
Jodhpur	Increased LPG adoption
Barmer	Reduced biomass dependence
Jaipur	Urban-rural expansion
Bikaner	Improved women health
Udaipur	Tribal household coverage



**IX. ECONOMIC IMPACT OF PMUY IN RAJASTHAN**

**9.1 Reduction in Household Burden**

PMUY reduced expenditure related to:

- Medical treatment,
- Fuel collection,
- Physical labour.

Although LPG refill costs remain a challenge, households benefited from time savings and improved efficiency.

**9.2 Employment Opportunities**

The scheme generated employment in:

- LPG distribution,
- Transportation,
- Cylinder delivery,
- Rural retail networks.

**Table: Employment Areas**

Sector	Employment Generated
LPG Distribution	Delivery services
Transport	Cylinder transport
Retail	Rural agencies
Technical Services	Installation and safety

**9.3 Improvement in Productivity**

Healthy women could participate more actively in:

- Agriculture,
- Dairy activities,
- Handicrafts,
- Self-help groups.

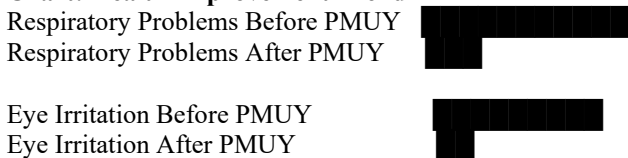
This contributed to rural economic development.

**X. HEALTH IMPACT IN RAJASTHAN**

Indoor air pollution was a major issue in Rajasthan’s rural areas.

- Major Improvements After LPG Adoption
- Reduction in smoke exposure,
- Better respiratory health,
- Reduced eye irritation,
- Cleaner kitchens,
- Better child health.

**Chart: Health Improvement Trend**



**XI. ENVIRONMENTAL IMPACT**

Traditional cooking fuels caused:

- Deforestation,
- Carbon emissions,
- Environmental degradation.

LPG usage reduced pressure on forests and improved environmental sustainability.



### Environmental Benefits

Environmental Factor	Impact
Deforestation	Reduced
Smoke Pollution	Reduced
Carbon Emission	Lower
Kitchen Environment	Cleaner

## XII. SOCIAL IMPACT ON WOMEN

### 12.1 Improvement in Dignity

Women reported greater dignity and convenience due to clean cooking facilities.

### 12.2 Educational Impact

Girls spent less time collecting firewood and more time attending school.

### 12.3 Gender Equality

PMUY promoted gender equality by:

- Recognizing women as beneficiaries,
- Improving women's decision-making role,
- Reducing unpaid labour burden.

## XIII. CASE STUDY: RURAL RAJASTHAN HOUSEHOLD

### Case Study – Ajmer District

A rural household in Ajmer district received an LPG connection under PMUY in 2023.

#### Before PMUY

- Daily firewood collection: 3–4 hours,
- Heavy smoke exposure,
- Frequent respiratory illness.

#### After PMUY

- Significant time savings,
- Cleaner kitchen,
- Better health,
- Women engaged in embroidery work for additional income.

## XIV. CHALLENGES IN PMUY IMPLEMENTATION

Despite achievements, several challenges remain.

### 14.1 Refill Affordability

Many poor households struggle to afford LPG refills regularly.

### 14.2 Continued Biomass Usage

Some households continue using firewood along with LPG due to:

- Cultural habits,
- Refill costs,
- Fuel availability.

### 14.3 Rural Accessibility

Remote desert areas sometimes face:

- Delivery delays,
- Transportation difficulties,
- Lack of awareness.



**14.4 Income Instability**

Low-income families often prioritize food and other necessities over LPG refills.

**XV. SWOT ANALYSIS OF PMUY IN RAJASTHAN**

Strengths	Weaknesses
Improved health	Refill cost burden
Women empowerment	Incomplete awareness
Reduced drudgery	Continued biomass use
Environmental benefits	Rural delivery challenges
Opportunities	Threats
Rural development	Inflation in LPG prices
Better education	Poverty
Women entrepreneurship	Supply chain issues
Green development	Fuel affordability

**XVI. GOVERNMENT INITIATIVES SUPPORTING PMUY**

The Government introduced:

- LPG subsidy support,
- Awareness campaigns,
- Rural distribution centres,
- Ujjwala 2.0 expansion.

Ujjwala 2.0:

- Launched in 2021, it focused on:
- Migrant families,
- Simplified documentation,
- Additional LPG support.

**XVII. COMPARATIVE ANALYSIS: BEFORE AND AFTER PMUY**

Indicator	Before PMUY	After PMUY
Cooking fuel	Biomass	LPG
Indoor pollution	High	Low
Women’s workload	Heavy	Reduced
Time for employment	Low	Increased
Kitchen cleanliness	Poor	Better
Health condition	Weak	Improved

**XVIII. POLICY SUGGESTIONS**

The following measures can improve PMUY effectiveness:

1. Increase LPG refill subsidies for poor households.
2. Strengthen rural delivery systems.
3. Conduct awareness campaigns regarding health benefits.
4. Improve last-mile connectivity in desert regions.
5. Encourage women-led LPG distributorships.
6. Promote clean energy education in rural areas.
7. Ensure regular refill support for poor families.
8. Integrate PMUY with women self-help groups.



### **XIX. FUTURE PROSPECTS**

PMUY has strong future potential because:

- Clean energy demand is increasing,
- Rural awareness is improving,
- Women empowerment policies are expanding.

The scheme can contribute significantly to:

- Sustainable development,
- Gender equality,
- Rural modernization,
- Public health improvement.

### **XX. CONCLUSION**

The Pradhan Mantri Ujjwala Yojana has emerged as one of the most important welfare schemes for women empowerment in India. By providing access to clean cooking fuel, the scheme has improved health conditions, reduced physical drudgery, enhanced social dignity, and promoted economic participation among women.

In Rajasthan, PMUY has played a transformative role, especially in rural and desert regions where women previously spent long hours collecting firewood. The scheme has improved living standards, reduced indoor pollution, and supported women's participation in productive activities.

However, challenges such as refill affordability, poverty, rural accessibility, and continued use of biomass fuel still need policy attention. Strengthening subsidy support, improving awareness, and expanding rural infrastructure can enhance the long-term sustainability of the scheme.

PMUY is not merely an energy-access programme; it is a major instrument of social transformation, gender equality, and rural development in India.

### **REFERENCES**

1. Ministry of Petroleum and Natural Gas. [www.data.gov.in](http://www.data.gov.in)
2. Pradhan Mantri Ujjwala Yojana Official Portal. [www.pmuy.gov.in](http://www.pmuy.gov.in)
4. National Family Health Survey (NFHS) Reports. [2022-23, 2023-24]
5. Government of Rajasthan energy and rural development reports 2023-24.
6. NITI Aayog reports on clean energy and women empowerment, SDG India Index 2023-24 and Voluntary National Review, [www.niti.gov.in](http://www.niti.gov.in)
7. Sharma S., Moerenhout T., Aklin M., Bajaj k., How to Target LPG Subsidies in India: Technical Report , International Institute for Sustainable development [2021]
8. Economic Survey of India 2023–24. page 147,157.
9. State Performance Report [2023-24], Department of Rural Development, [www.dord.gov.in](http://www.dord.gov.in)
10. Vyas S., Gupta A., Khalid N., Gender and LPG use after government intervention in rural north india, world Develop., 148[2021], Article 105682.



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