



Clean Fuel. Better Life.



The Ujjwala Saga - Unending Happiness & Health



Ministry of Petroleum
and Natural Gas
Government of India

सत्यमेव जयते

“

I was born in a very humble abode
where there were no windows
and only one door.

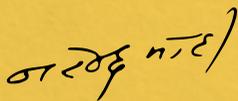
My mother used firewood for cooking.
Sometimes, the smoke was so dense
that we could not even see our mother
when she served us food.

This is how I ate in my childhood.

So, I have experienced and lived the pain
of these mothers and children.

I want to free these mothers
from such a painful life.

And that is why we resolved
to provide clean cooking fuel
to 8 crore families.



Narendra Modi
Prime Minister of India

”





FOREWORD

“Just living is not enough” said the butterfly,
“one must have sunshine,
freedom and a little flower”

– H. C. Anderson

In last 30 months Pradhan Mantri Ujjwala Yojana (Ujjwala) has reached 60 million women and their households. Pre Ujjwala, there was a wide variation in the LPG penetration in India. Rural areas particularly in Northern and Eastern India had less than 25% penetration. The coverage of LPG in the country has now reached close to 90% rising from 56% in 2014.

Bringing Ujjwala to life has been an extraordinary journey for all of us. This book is an account of the experiences of top leadership, middle management, the field functionaries and various other stakeholders.

The stories of Ranju Devi, Kamala Bai, Lata Devi, Hemawati, Suchismita, Rumabala, Nirmala Devi, Lakmi, Salma bibi, Chandramma, and Mary strewn across this book are not mere stories. These women have not only transformed their lives through Ujjwala, they have also transformed the way anyone working in the LPG ecosystem looks at his/her work. An LPG worker is no longer just providing an efficient service; he/she is also bringing about profound social change and gender equality.

You might notice that each one of us has found our own talisman, actually taliswoman on the lines of Gandhi’s Talisman. Gandhi ji reminded us to recall the face of the most vulnerable person that we may have seen to decide whether a particular course of action would be worth taking.

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MINISTRY OF PETROLEUM
AND NATURAL GAS



Many Ujjwala customers are a living testimony of the highest possibilities of clean cooking fuel. The daily activities of organizing cooking fuel, cooking, cleaning blackened utensils take much less time now. They and their families are healthier. They use banking services regularly. They are able to use their time more productively. They are more at peace as they have time for recreation and rest. With Ujjwala we may have hit upon an answer to the age old question-“what do women want?”.

As an old fable says what a woman wants is to be in charge of her own life. Ujjwala allows women to experience Swaraj (Self rule)-to be in charge of their lives.

I not only heartily recommend the book to anyone interested in the stories related to making clean cooking fuel accessible to all in a systematic and time bound manner but also to those who may have interest in Women Empowerment, Development at Scale, Clean Energy, Serving customers at the Bottom of Pyramid, Direct Benefit Transfer, Technology for Development and Public Private Partnerships.

Shri Dharmendra Pradhan

Minister for Petroleum & Natural Gas
and Skill Development & Entrepreneurship
Government of India



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MINISTRY OF PETROLEUM
AND NATURAL GAS



DNOs Diary– Harbinger of Change in Rural India





1st May, 2016 was an epic date, a date when history of rural development of India was rewritten, as our Hon'ble Prime Minister launched the Prime Minister Ujjwala Yojana (PMUY). The path was shown and the task of implementing the mammoth work of providing LPG connections to 5 crore women from below the poverty line was assigned to the Oil Marketing Companies of India. A task which entailed not only a logistic but a social challenge as well. A task of unprecedented magnitude—never undertaken by any entity in India, nor perhaps anywhere else in the world.

To create a rank & file at the grass roots, District Nodal Officers were appointed in each district of the country, to coordinate & implement PMUY. This section is a first hand account of their experiences over the last 3 years, their journeys and their war against the misery faced by the women of rural India. Their stories include experiences shared by the PMUY beneficiaries and how PMUY has freed them from the daily arduous job of collecting fuel for cooking in smoke filled kitchens. The section also covers the various challenges faced by the DNOs – the foot soldiers of PMUY, during the implementation of the scheme and how they have managed to overcome them.

It would not be an understatement to say that the DNOs are the harbingers of change in rural India. Assigned the responsibility of implementing the Prime Minister's vision of providing cleaner kitchen fuel, they have worked round-the-clock to meet deadlines. Soon it became a personal war for each DNO – far beyond the diktats of work. Their efforts & sacrifices to push this socially empowering initiative, fighting to overcome centuries old social taboos and practices make for a heart-touching read. From identifying beneficiaries, providing logistic support, gearing infrastructure, motivating people, ensuring safety, addressing grievances, confirming refills and much more, their assignment was certainly not easy.

This section includes the stories narrated by PMUY beneficiaries, be it Kamala Bai or Salma Bibi, from across the length and breadth of the country. Their stories are a revelation of the socio-economic transformation that PMUY has brought in, starting from better health due smokeless kitchen, to financial empowerment through the Blue Flame Revolution. They highlight that PMUY has not only served its purpose of providing a head-start, but has also proved to be the bedrock for social change. More and more women living below poverty line are empowering themselves by engaging in revenue generating activities from the time available to them after getting LPG connections. Some are even turning entrepreneurs. PMUY has provided a fillip to the poorest of poor women to find their place in the Sun. The twin mantra of dignity & empowerment resonates through the stories shared in the DNOs diaries.

The selfless dedication of our front-liners, our DNOs, may fade in oblivion with time, but they will always be remembered as agents of social change, for which the Country will always remain indebted.



PMUY – A Vision for Transformational Change in Rural India

“ *This country has not been made by politicians,
kings or governments.*

*It has been made by farmers, labourers,
our mothers and sisters and youth. ”*

– Shri Narendra Modi

A quick glance at the Statistics of Indian Census (2011) would point out the obvious fact, India is dominated by rural population. About 70% of Indian population is located in the rural areas (according to Census 2011). This data draws a portrait of India which helps to direct government schemes, policies and business models (both public and private) toward the majority populace, the rural India. With an economy growing faster than any other in the world, there emerged certain government policies which helped businesses step into the rural market with relative ease.

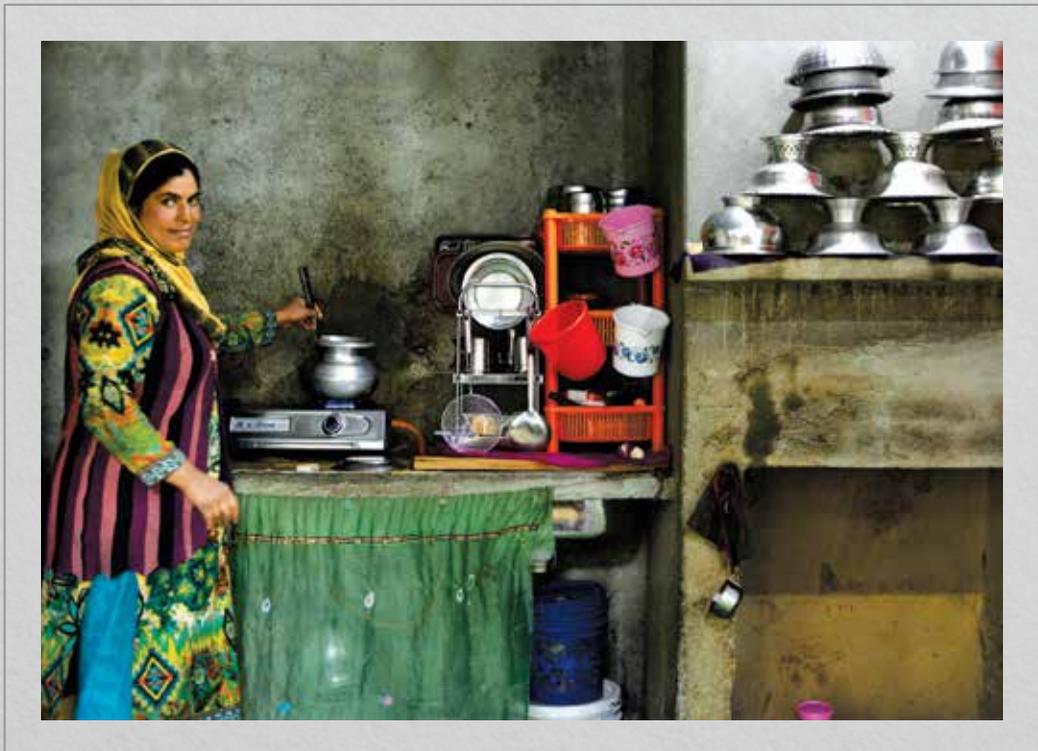
Since childhood, I have seen people collecting firewood as a cooking fuel in the village where I was born and brought up. Villagers would sometimes spend their entire day collecting firewood from forests to prepare the day's meal. Collecting cooking fuel everyday was a major task for families living in rural India. Not only was collection of firewood a time consuming and integral part of daily chore of the womenfolk, but the smoke from the firewood would fill the entire household into a deadly environment. These poisonous gases from firewood were inhaled by the family members, primarily by the women of the household, making them susceptible to chronic diseases. The need of the hour was smokeless villages in India, and relief from the scourge of cooking for hours in smoke filled kitchens.

According to WHO estimates, about 5 lakh deaths in India are due to polluting cooking fuels. Most of these pre-mature deaths are due to non-communicable ailments such as heart disease, stroke, chronic obstructive pulmonary disease and lung cancer caused by Indoor Air Pollution from cooking fuels. Indoor Air Pollution from firewood is also responsible for a significant number of acute respiratory illnesses in young children. According to experts, having an open fire in the kitchen is like burning 400 cigarettes an hour. Getting cleaner fuel like LPG was a herculean task for decades in the urban areas; leave aside the rural areas where it was unimaginable even 10 years ago. However, the present government, spearheaded by the Hon'ble Prime Minister of the Nation,



Shri Narendra Modi, took a revolutionary step on 1st May, 2016 by launching the Pradhan Mantri Ujjwala Yojana (PMUY) to end the drudgery of the Indian rural women who cook on firewood. PMUY protected their health from pollution and also empowered them by making them the proud owners of their LPG connection. The Hon'ble Prime Minister's vision and decision to launch PMUY was partly inspired by his own mother's woes of cooking on firewood, witnessed by him during his childhood.

The PMUY scheme started from finding its beneficiaries from Socio Economic Caste Census (SECC) list 2011, later extended to 7 additional categories and today, the PMUY scheme is open for 'all other poor households irrespective of Caste, Religion, Sects. During the first phase of PMUY, the entire process of selecting beneficiaries was from Socio Economic Caste Census (SECC) 2011 database after due verification, KYC seeding, NIC & internal duplication checks and finally distribution of the connections through public *melas*, leading to a more transparency & accountability. There were few challenges and difficulties too during this time, such as pushing distributors beyond their operational limits, to reach the last mile customer, names not matching or found missing in the available SECC 2011 database, etc.





The second phase of PMUY i.e. extended PMUY 1 brought a few modifications by introducing seven new categories like– Scheduled Caste / Scheduled Tribe (SC/ST), Pradhan Mantri Awas Yojana (PMAY), Antyodaya Anna Yojana(AAY), Forest Dwellers, Tea & Ex-Tea Garden Tribes and People residing in River Islands and Islands which further extended the horizon and scope of PMUY. Beneficiaries who were earlier left out could now be given LPG connections, provided they belonged to any of the above-mentioned categories. Thereafter, Gram Swaraj Abhiyan (GSA) and Extended GSA (e-GSA) was launched too keeping in line with our Hon'ble PM, Shri Narendra Modi's visionary statement– 'Sabka Saath Sabka Vikas' in order to make smokeless villages a reality Today, all poor households can be happy beneficiaries of PMUY, one of the most inclusive schemes to have been witnessed by India in decades. PMUY boasts of a 6 crore family, growing daily. Hoping to reach every single kitchen by 2020, PMUY has been hailed as the, 'Blue Flame of Hope'.

I have been working as a professional in LPG business since 2010 in BPCL. But over the past two years, LPG is no more a business to me, it has become my passion, it has become my religion. I have been amongst the privileged few to be bestowed with the opportunity to be the District Nodal Officer (DNO) for PMUY implementation, a change agent for revolutionizing the kitchen of poor Indian women by energizing their life with LPG connections under PMUY. Being a DNO has not only changed my day to day activity, but has also connected me socially, emotionally and physically to this social welfare scheme. It's a great pride for me that I am a part of world's largest social welfare scheme that has benefitted more than 60 million poor household in India and the count is on.

I cannot forget the words of Mrs Kamala Bai (a PMUY beneficiary who got her LPG connection), aged 68 yrs, village Mangroop, district Bhilwara, that still reverberates in my ears and inspires me to walk that extra mile to serve the Nation under the aegis of the PMUY. When I asked her how she felt after cooking with LPG, she said "Jug Jug Jiyo Beta, Aaj 55 saal ho gaye mujhe khana banate hue, maine kabhi nahi socha tha ki main Gas ke Chulhe per khana banaungi" (May you live forever child. It has been 55 years since I have cooking, never did I think that I will cook on a LPG stove). This is not a lone incidence. Similar stories unfold everyday on the dramatic transitions in the lives of Indian women, who have been touched by PMUY. I am a firsthand witness to this revolution as a DNO for PMUY implementation in Bhilwara, Rajasthan. But all revolution needs sacrifice and hard work, and as an Oil PSU, we were ready to brave the challenges and obstacles .

Shri Chand (BPCL)
DNO Bhilwara, Rajasthan



Unfolding the Blue Flame Revolution: Challenges and Solutions

“The future of India lies in its villages” stated by our Father of the Nation, Mahatma Gandhi ji, truly embodies that development of India is akin to the development of its villages.



Since the inception of PMUY in West Bengal on 14th August 2016 and its subsequent launch in Malda district on 15th August 2016, I being a District Nodal Officer (DNO), have witnessed various challenges of this Blue Flame Revolution, as it unfolded, from the very beginning.

With a vision of ushering in, Blue Flame Revolution and a challenging deadline set by the Government, the DNOs and the channel partners had the herculean task of surveying villages and finding eligible households as per the then prevalent PMUY modalities. Working against time, each member of our team had spent many sleepless nights to ensure that each and every village is covered under the PMUY scheme in order to reach 100% LPG coverage by the end of March 2020.

However, bringing in a revolution is easier said than done. As DNOs, we had to overcome several social taboos one of them being the apprehension of the villagers to use LPG as a fuel. For generations, villagers have been using firewood as the primary source of fuel, thus such apprehensions were understandable. Moreover, the villagers were also worried about LPG being a safe fuel. Further, the low education levels and the habit of sitting on the floor while cooking, posed a serious challenge for the safe use of LPG by these beneficiaries. One of the strategies that we came up with, was to spread awareness about LPG safety amongst the prospective beneficiaries. The ‘Ujjwala Didi’ and ‘Ujjwala Suraksha Mitra’, proved beneficial. These were local women who could speak their language. They were trained to advocate methods for safe use of LPG and the correct posture required to cook while using the LPG amongst the villagers. Further, pictorial safety and insurance cards were also given along with each subscription voucher so that the beneficiaries could understand them properly. In order to promote further learning and sharing of experiences, an interactive community platform named ‘LPG Panchayat’ was launched. It would bring together various stakeholders from the LPG ecosystem, be it OMC officials, distributors, mechanics, delivery men or the beneficiaries to discuss safe and sustained usage of LPG, its benefits and women empowerment through the adoption of the PMUY Scheme.

As DNO of Malda district, I have witnessed the improvement in the coverage of rural poor households under PMUY, in the district, LPG coverage rose from 28.55% as on 1st April



2016 to 66.10% as on 1st December 2018, in just 2.5 yrs time. It is also significant to mention that 71.72% of PMUY beneficiaries in the district have come back for a refill of LPG cylinder after the connection was released and the average per capita consumption is 3.21, consolidating the fact that the blue flame revolution is a success story which has brought in a positive change in the lives of rural women households who were earlier dependent on traditional cooking fuels.

I believe that PMUY has enriched lives and smiles of many rural women households by providing them free LPG connections. Thus, the dream of millions of rural woman of smokeless kitchens could be realized which would help reduce household air pollution caused by traditional fuels and improve the health of rural women and children. I feel honored and privileged to be a part of the largest social change inclusion initiative scheme ever by Government of India. As a DNO myself, and thousands like me who have been assigned the job of PMUY implementation, have come across mind boggling testimonials of the woes that the rural women folk had to face to cook a meal. In this context, the advent of PMUY has been a boon to them. Not only can they cook food faster, without much hassles, but it is also brings in a dramatic start to a fission reaction, in the form of women empowerment in rural India.

Soumya Ranjan Mallick (IndianOil)
DNO, Malda



Empowerment in Rural India through PMUY

Sitting on a hand woven mat made of coconut leaves, Laxmi and her mother-in-law from Keutia Village of North 24 Parganas of West Bengal are busy making *sola mala* (thermocool garland) for the upcoming *Saraswati puja*. The sun is more generous this winter than the previous years, and so is life. One garland fetches them Rs. 4, and today they are able to make 4-5 dozens of them in a day, as against less than half these numbers earlier.

Laxmi gives credit to this to the LPG connection which she had received less than a year ago under the Pradhan Mantri Ujjwala Yojana (PMUY). It is interesting to learn how an LPG connection could make her life a bit more comfortable and enjoyable.

Till a year ago, fights and arguments were a regular part of her morning chores, recalls Laxmi. Her husband, who works as a daily wager, has to report to the contractor before 8, or else he loses the day's wage. But lighting a traditional chulha takes time. The problem particularly aggravates in the rainy season, when the firewood and upla (dung cakes) get drenched, despite all her efforts to keep them dry. She uses kerosene to light the fire. The partial combustion envelopes her kitchen in a dense smoke.

Laxmi would regularly put up with the health risks to prepare food, which would take her over two-three hours. Despite all this, she could not prevent the squabbles. On many days, her husband would either leave home without food or get late, and her two sons would leave for school unattended. Her miseries did not end there. Every day, after preparing meals, she had to go out to collect firewood or prepare dung cakes for the next day's cooking.

But these days with an LPG connection (courtesy PMUY), preparing food is just an hour's job for her. After finishing the household chores, she now helps her sons get ready for school, tends to the cattle, and then joins her mother-in-law in making *sola malas*. She takes a small break when her children return from school and is able to instantly serve them hot food. "LPG has not only made our life happier and better, but has also helped us earn money," says Laxmi, as we click some photographs of her beautiful handicrafts.

Walking along the meandering alleys of the village, we reach the house of one more beneficiary of PMUY, Marjina Bibi. Marjina had lost her husband a few years and lives with her two sons and two daughters, one of who is married. She seats us on her neatly made clay-verandah and quickly prepares tea for us. She wisely explains her economic condition to us while feeding the cow, which she informs, is her only source of income. Her requirement for milk and dung for upla (Cattle Dung Cake used for Fuel) has made the cow a bread earner for the family.

Earlier, she had a 14.2 kg cylinder, refilling the same cost her Rs. 700-900. Her meager income from the available resources didn't allow her to buy the refill. She also faced



difficulties in buying *chakla* (pieces of firewood) from the market which costs Rs. 110-120 a bag. Besides, one bag of *chakla* combined with dung cake as cooking fuel for a family of four lasts only three days.

She then happened to attend one of the Safety Programmes on LPG in the village where she came to know about the

availability of 5 Kg LPG cylinders under PMUY Scheme. She has since been buying the 5 Kg cylinder. Every day, she keeps aside Rs. 10-20 from her income and deposits in the 'gullack' (piggy bank). After 15 days, she saves enough to buy another refill of 5 Kg.



What makes her proud is the fact that these days when her son-in-law visits her home, she can quickly offer him tea. But what gives her utmost satisfaction the fact that during the holy month of Ramzan, she can wake up before dawn and easily cook food before sun-rise.

Just a few villages away, in Mukundapur, resides Salma Bibi who was skeptical about our visit and why we were enquiring about the LPG connection. She quickly cleans the stove and cylinder and on asking why she did that, her reply was "I have taken the connection on loan which has it not been repaid till date. So I thought, you might take away the cylinders and stove if it is not kept properly".

When we told her this is a tactic of the LPG Distributors' delivery boys in ensuring that the equipment are kept in a proper and safe condition, she could not hold back her tears of joy. She then explains how the cylinder has made her life convenient. It takes just an hour to prepare every day meals for her family. Her daughter who had left her studies after class 8 is now preparing to rejoin school in class 9 in the local Govt. school with the subsidy amount that is getting accumulated in her bank account. This account was also created under PMUY for the Direct Benefit Transfer of LPG subsidy or PAHAL (Pratyaksh Hanstantrit Labh). PMUY has really been a harbinger for change in our daily lives, she states with a glowing face.

Bibhu Ranjan Das (HPCL)
DNO-24 N Parganas



Harbinger of Momentous Change–Ujjwala

“ *The real tragedy of the poor is the poverty of their aspirations.* ”

- Adam Smith

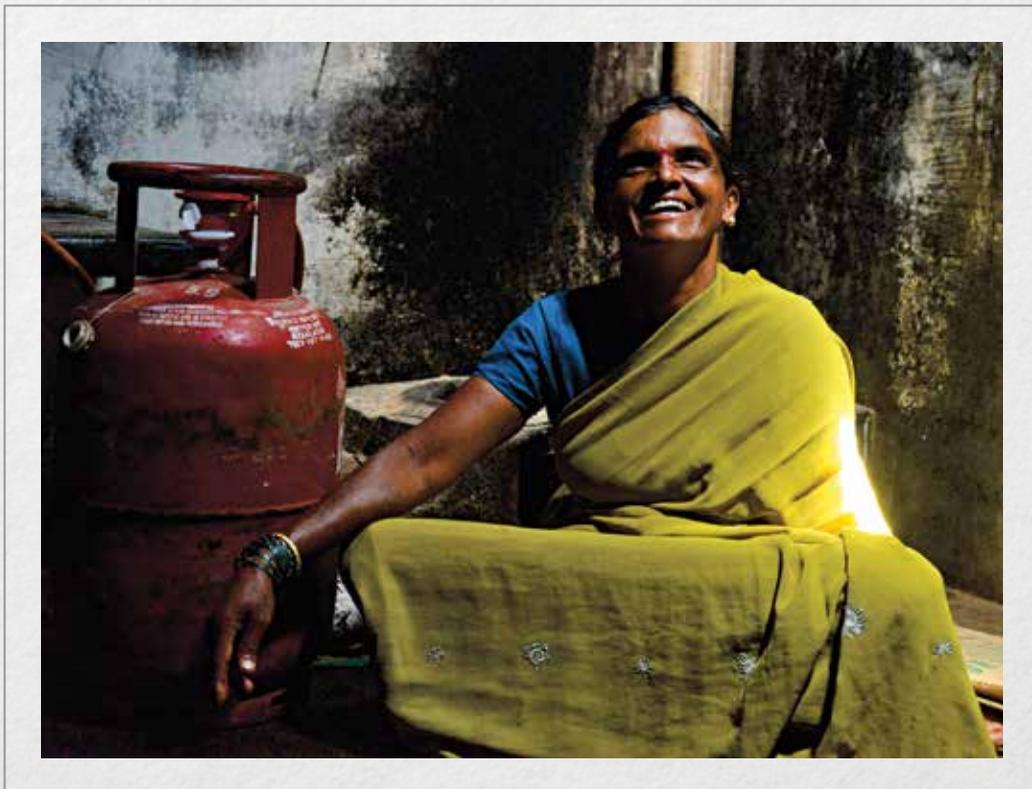
It was 20 minutes past 3 PM in Adenigarh, Harbhanga block in the district of Boudh, Odisha. Boudh in West-Central Odisha is one of the backward districts of the state. It has a rich Buddhist culture which is symbolized by the very name of the district. We were in the premises of a local school, patiently waiting for the crowd to assemble for the distribution of LPG connections to the rural poor under Pradhan Mantri Ujjwala Yojana (PMUY). There were several groups of people (mostly rural women) scattered unevenly around two wooden tables. Some of them were also squatting on the Dari (coarse cotton mats) spread on the ground chattering amongst themselves, while others just loitered around. Information had been given to the women folk of the surrounding villages the





previous day, regarding this programme where distribution of PMUY Gas connection would take place. There was curiosity, happiness & apprehension among the crowd.

Being the guest-cum-convenor of the programme, I was seated behind one of the tables along with some prominent locals of the area. Since the launch of PMUY in Odisha, I, as part of a group of officers, have been a witness to numerous such gatherings in the past. Today was no exception. As customary in such gatherings, we commenced our programme with formal address by guests. The address was regarding the PMUY, its utility; its far reaching impact on the rural socio-economic landscape, the impact on environment and health, etc. Safety clinic was conducted. LPG connections were handed over. We were almost through with our structured programme, when an elderly lady, in her sixties came to me with folded hands. I was struck by the expressions on her wrinkled face. Eyes welling with tears, she bent down to touch my feet. Deeply embarrassed and perplexed, I tried to stop her from doing so. While we are used to the younger people bending down to touch the feet of the elderly, this was the first time in my life I was witness (rather unwittingly and unintentionally) to such an incident. I





was wondering why an elderly lady was trying to reverse the deeply entrenched social tradition of reverence for the elders. It must be something personal which must have led her to disregard the lifelong convictions. In a few minutes, she became composed and told us that she needed a gas connection for cooking food. She was old and not in the best of physical health. She was staying alone. Her two sons are away – in other states, in search of their own livelihood. She was finding it extremely difficult to cook by using wood, dry leaves etc. She wanted an easier way to cook for survival. She had heard that cooking on gas is easier and helps in keeping women healthy. But she did not have the wherewithal to buy LPG connection. She requested us to give her a gas connection. We were overcome with sadness. The local LPG distributor present in the meeting was asked to check the woman's name in the SECC list of that area. As luck would have it, the name of the woman was in the list. The KYC form was filled then and there. The distributor was advised to release connection following due process subsequently.

This moving incident epitomizes the potential of PMUY in facilitating the fulfillment a basic need of a rural household.

The poor are differentiated on the basis of their access to resources and their utilization. When sections of the society are deprived of facilitating tools such as an easy, effective and clean cooking fuel to fulfill their basic need for food, they can never aspire to come out of the difficult circumstances they are in. Hope and aspirations are as fundamental to human existence as food and water.

PMUY has fulfilled that dream for the poor and has ushered in a change. It has created an ecosystem wherein the rural poor are no longer chained to the means (the cumbersome process of collecting fuel wood etc.), they are achieving their end (of preparing food effortlessly thereby fulfilling their most basic needs (of food). PMUY has successfully created a launch pad for each and every poor household to aspire and achieve, a launch pad to dream bigger. And statistics corroborate the optimism - the total number of LPG consumers in Odisha has grown to 75 lakh whereas PMUY connections have gone upto 36 lakh. Odisha, despite its inherent barriers, has marched ahead in the last four and half years – from 20% LPG penetration to 70%, on the strength of PMUY alone. As far as the rural domestic energy scenario is concerned, we, in Odisha are at the cusp of a historic transition. Transition from the predominant use of wood and other polluting fuels to a sustained use of LPG as cooking fuel.

Let the Ujjwala sunshine spread happiness in every rural home and every woman's heart. Let us hope that the future of rural India is built on this bed rock of social evolution which will then provide the much needed impetus to empowerment of the otherwise exploited rural women of India.

Nihar Ranjan Das (IndianOil)
Odisha State Office



Millennium Development Goals and PMUY: A Bright Prospect Ahead

India is a signatory to the Millennium Declaration adopted at the United Nations General Assembly in September 2000, and has consistently reaffirmed its commitment towards the eight Millennium Development Goals (MDGs). The targets of the MDGs converge with India's own development goals to reduce poverty and other areas of deprivation. The eight development goals also include woman empowerment and environment sustainability. The Pradhan Mantri Ujjwala Yojana (PMUY) will take India a long way in achieving these MDGs.

In my opinion, the LPG connection provided to the proletariat under the PMUY scheme, will be a boon on two counts, first it will reduce the time of cooking, alleviate rural health and promote sustainability. Secondly, the time saved from cooking can be employed in more fruitful employment or activities which can generate more financial resources for the household and improve their financial standing.

As a DNO of Mayurbhanj district of Odisha, I have witnessed many success stories. One instance is that of Hemabati Bage of Jamda, Odisha, who after getting the Ujjwala





connection, has started goat rearing. Today, she has more than 100 goats which has helped her improve her status in the society. She is an example of the transition that PMUY is bringing in the lives of women earlier living below poverty line.

Initially, however, the barriers were high. Mayurbhanj is a forest covered district where women use wood as the primary fuel. Wood is so predominantly available in this district that women have not even shifted to cow dung or coal and this was the greatest challenge which I faced while implementing PMUY. Village women did not want to shift to other fuel as they get their fuel easily from nearby forests and hills. Moreover, women of the villages were shy to speak to representatives who would visit the beneficiary's homes to collect requisite paper for providing the LPG connection. To overcome the mental block and social taboos of the rural women who were mostly illiterate, we started a pilot project. Mrs Kuntala Mohanta, a woman from the same area, was enrolled to reach out to and convince the women folks to attend the PMUY information camps, and submit their documents for allotment of LPG connections. The initiative was a great success, and we rapidly increased our customer base for PMUY LPG connections. Mrs. Mohanta was later covered by the National Geographic Channel as part of the documentary on PMUY and became a household name as Ujjwala Didi. Inspired by the concept of Ujjwala Didi, and its success, it has been implemented in the entire state of Odisha.

Another example is that of Smt. Suchismita Kabata of Udala block during an interaction with the Hon'ble Prime Minister of India, said that after getting an LPG connection under PMUY, she now gets time to nurture her son and take care of her family.

We have got many success stories from Ujjwala beneficiaries who are not only empowered, but are now utilizing their time by working in self help groups, *Mahila Samitis* and NGOs. Some have even gone on to become entrepreneurs.

There are many such success stories in Mayurbhanj, and I believe, across India. However, if one contemplates objectively and tries to find out the opportunities from the PMUY in future, apart from sustainability and women empowerment, the obvious question is whether we have abundant opportunities to utilize the employable time generated from less cooking hours of the millions of rural women of India. Whether, in some way or the other, the skills sets of these women, benefitted by PMUY, can be transformed into revenue generating business propositions. PMUY has thrown the door open for sustainable development and women empowerment in rural areas. It is for us to take advantage of the opportunities being offered by the bottom of the pyramid and take appropriate initiatives using PMUY as a spring board to try to address the MDGs of 2030.

Anal Sengupta (BPCL)
DNO Mayurbhanj, Odisha



Different Strokes- An Expert's Opinion





This section covers a diverse range of articles contributed by various experts with an objective and research oriented approach to analyze the Prime Minister Ujjwala Yojana through the different stages of its conceptualization and implementation.

While PMUY refill/ consumption debate in public domain has largely been driven by anecdotes and random beneficiary testimonials, this section provides an in-depth data-driven analysis of state-level aggregated refill patterns for PMUY beneficiaries. Some authors in this section have made energy content analysis for the absolute number of refills and household energy needs to examine how many cylinder purchases are necessary to qualify LPG as primary cooking fuel. A snapshot of the variance in total LPG purchase in the first year by PMUY beneficiaries across states provides insight on the level of variance. Also, PMUY refill data is integrated with a published climate- energy model to estimate how the distribution of LPG, a fossil fuel, has contributed to the fight against climate change. The section also focuses on the social front of the PMUY revolution, highlighting how PMUY became a beacon of social change and a subject for advocating collectiveness amongst women through Panchayats, to discuss various issues of LPG benefits and safety. This collective strength of women for their own empowerment could see the start of social upheaval in rural India.

The vision and conceptualization of PMUY for ushering in a change of this magnitude, is possible only when the lot of the suffering woman is recognized. The woes not only start from the daily chore of the women folk, primarily from villages, to collect firewood and fuel for hours together but also exposing themselves to toxic fumes and smoke from their traditional stoves or chullas. Data reveals that about 31% of women in go out of their villages in search of fuel, which include children. World Health Organization estimates that 5 lakh deaths in India are due to polluting cooking fuel. These pertinent issues of women health and empowerment, unattended to for decades, are at the core of the Government's decision to implement PMUY on such a large scale. This has been highlighted by some of the articles of our experts in this section.

Some experts as workers at the grass-roots level, have contributed to the experience sharing as they have witnessed the blue revolution unfold, engulfing all the social taboos, and centuries old practices and ushering an unprecedented social change. PMUY has provided a shot in the arm, a bounce in the strides of the otherwise subdued existence of the marginalized women folk, whose life would revolve round the kitchen and household chores. The articles highlight the changes and their implications in our social structure, from both an emotional and objective view point. Though Social changes are hard to achieve and take years, the spread of PMUY like a wildfire with 6 cores connections in less than 3 years, is an evidence of the fact that the women of this country, especially from the poor section of the society, have accepted this with open arms to unshackle themselves from cooking in smoke filled kitchens.



Ujjwala at 6 crores: Impact on Cooking Energy Transition and Climate Change

The Pradhan Mantri Ujjwala Yojana (PMUY) has been praised as a landmark initiative that has empowered six crore poor rural women to buy Liquefied Petroleum Gas (LPG) as the primary source for cooking. Having an LPG stove in the kitchen has always been an aspiration, which was unaffordable to many, until the capital cost support became available through PMUY in the form of subsidies and a loan facility. However, public debate over whether the beneficiaries are purchasing enough refill cylinders has emerged. In this article we analyze aggregated LPG refill numbers of PMUY beneficiaries by state, and discuss this within the larger perspective of clean cooking transitions and climate change. The pertinent question that remains to be answered is whether the Indian rural population is making a transition towards cleaner fuels like LPG though the advent of PMUY. Therefore it is essential to understand the refill rates of PMUY beneficiaries. In section 2 we discuss inter-state differences in PMUY refill trends and suggest recommendations for policy. Moreover, it is also necessary to also examine the potential impact of LPG consumption by PMUY beneficiaries on the environment (section 3).

Transition towards LPG: energy benchmarks and state level variance

For this article, we only consider ~3.05 crore PMUY beneficiaries who have completed at least one year as LPG consumers (i.e., have completed 365 days since enrollment) as of 30 November 2018. To assess the consumption pattern, we consider the total number of LPG cylinders purchased during the first year. The average number of refill cylinders (hereafter, refills for brevity) purchased by these consumers is 2.9 cylinders. PMUY beneficiaries receive their first (installation) cylinder of LPG along with the stove, so the average LPG purchase per household in the first year is 3.9 cylinders. The data analysis shows that of the original beneficiaries, 69 lakh (24%) did not purchase a refill. Assuming these beneficiaries have dropped-out, the resulting annual LPG purchase for active consumers (with 1 or more refill purchase) increase to 4.9. On average, 60% of active customers purchased less than 4 cylinders in the first year, while 27% have purchased 5 or more cylinders.

Commercially available LPG stoves in India receive ratings (one to five stars) based on efficiency tiers that vary from 68% to above 81%. However, on the conservative assumption that PMUY beneficiaries may use cheaper stoves, we assume a 10% reduction over rated efficiency levels (from 70% to 60%). As the calorific value of LPG is 45.84 MJ/kg, the useful energy delivered per 14.2kg cylinder is estimated to be 385 MJ. Considering a mid-point estimate of annual useful cooking energy requirement



for a typical rural household (hh) of five people is 3500 MJ, we broadly assume that exclusive LPG usage would require purchase of ten cylinders per year, and usage of LPG as primary cooking fuel (>50% of required cooking energy) would result in purchase of five cylinders a year.

As far as refill of LPG cylinders is considered, available state-wise refill data show that 79 lakh (28%) PMUY beneficiaries use LPG as a primary cooking fuel. As 69 lakh (24%) of the beneficiaries are dropouts, the balance 1.4 crore (48%) of beneficiaries can be considered secondary users of LPG, who require targeted interventions to reach primary LPG usage (as an interim target). To fully realize the health benefits of switching to LPG, it is imperative that LPG use is at near-exclusive levels (aspirational target). This suggests that PMUY's significant health benefit potential is yet to be fully realized.

Notably, PMUY had been exclusively targeted at women from 'deprived' households primarily in rural areas, who are generally dependent on agriculture or allied activities, and have relatively easy access to firewood, foraged solid fuels like crop residue, cattle dung, and in some places, coal. Considering that many of these poor women would not have had access to LPG in the first place without the capital subsidy and loan provided under PMUY, this is a remarkable achievement in the history of clean cooking transitions. The unprecedented scale of PMUY makes it one of the largest governmental efforts at enabling a cooking transition globally. The program, having provided LPG access to 6 crore households in less than 3 years, is an ideal candidate to study to understand transition dynamics, refills and use patterns, as well as climatic and other social impacts of a flagship national policy. The refill assessment undertaken here indicates an encouraging trend. Rural women, even from economically poorer states like UP and Bihar (Figure 1), are purchasing on average of 4 or more cylinders of LPG in a year. About 79 lakh poor women, who without PMUY's support would probably not have had access to LPG, now use it as their primary cooking fuel. This is despite the fact that PMUY was specifically targeted at 'deprived' households, whose socio-economic standing might suggest difficulty achieving primary LPG use in the first year. At the same time, it is clear that the PMUY programme is only a start and additional work will be necessary to meet its stated social objectives (as opposed to simply meeting target levels of customers).

Transition towards LPG: Environmental benefits

LPG stoves burn a fossil fuel resulting in climate relevant emissions. Traditional stoves, on the other hand, consume wood fuels and the carbon released could be reabsorbed into the trees. However, three factors complicate the idea that moving from a renewable resource (wood) to non-renewable resources (LPG) would be detrimental to the climate. First, wood fuels may be harvested in an unsustainable manner and some of the resulting CO₂ emissions can be assumed to stay in the atmosphere. Second, traditional stoves emit a number of other gases and particles that have a climate impact (e.g. methane, black carbon). Third, taking into account the above, LPG stoves is more efficient and requires less input energy to produce the same useful energy for cooking.



In the first year, actual average LPG purchases by PMUY beneficiaries is 3.9 cylinders of 14 kg approximately each. If we conservatively assume an average annual LPG consumption of three cylinders, this suggests 42 kg of LPG use in the first year. The impact of this partial transition from biomass to LPG use on climate altering emissions was estimated using a published model for fuelwood displacement and emissions reductions.

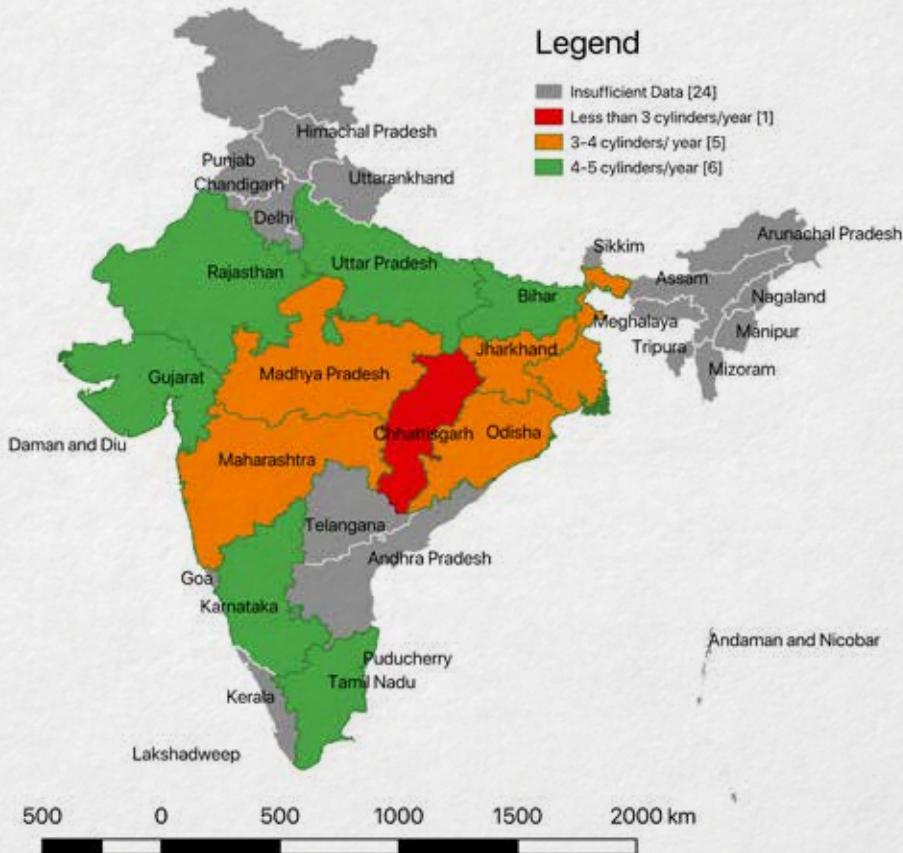


Figure-1: Average first year LPG cylinder purchases (including installation cylinder) by PMUY beneficiaries who have completed at least one year. States with fewer than 5 lakh experienced beneficiaries are considered to have insufficient data. The number in brackets in the legend is the number of states in each category.

Using conservative numbers for LPG consumed (above), average members in a household, number of refills, as well as a model developed by the co-authors of firewood consumption and displacement (based on 2011 data), we estimate significant emission



reductions by households partially transitioning to cooking with LPG subsequent to PMUY. Considering a range of assumptions regarding variability in renewability of firewood, we estimate reductions of 1.85 (100% renewable firewood) to 3.35 (70% renewable firewood) MT CO₂ in 2018 due to the program. India's per capita carbon emissions in 2015 (the year before PMUY was launched) were 1.85 metric tonnes per person¹. In other words, the avoided total Kyoto and non-Kyoto climate-active emissions from the first year of LPG use by this PMUY beneficiaries is equivalent to annual average climate emissions due to all sources of between 10.1 lakh and 18.2 lakh individuals depending on the assumption made for fuelwood renewability.

While near-exclusive LPG use is imperative to achieve any significant health benefits, the analysis presented here suggests a climate benefit of the partial transition to cleaner cooking. More detailed analysis of these impacts, using representative data by state and by urban and rural regions, is required to fully understand the benefits to climate and forests of this transition. Such analysis could also support India's effort in meeting its Paris targets. It also suggests that further course corrections to the policy to incentivize



¹ emissions from the burning of fossil fuels and the manufacture of cement – includes CO₂ produced during consumption of solid, liquid, and gas fuels and gas flaring



more regular use of LPG could have significantly larger benefits for the environment and potentially also for public health. In any case, a continuation of policies to encourage cooking energy transitions is warranted, especially in India, which is home to a quarter of the world's solid fuel using population. Further evaluations of the PMUY could provide important lessons to inform the design of public policies and investments to support clean cooking transitions in other developing countries as well, including those in Sub-Saharan Africa that also host a large fraction of populations still dependent on solid fuels.

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Author information

Corresponding author: abhishek.kar@alumni.ubc.ca

Affiliations

1. Institute for Resources, Environment and Sustainability, The University of British Columbia, Vancouver, Canada
2. Forest Resources Management, Faculty of Forestry, The University of British Columbia, Vancouver, Canada
3. International Institute for Applied Systems Analysis, Laxenburg, Austria
4. Stockholm Environment Institute, United States centre



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**Abhishek Kar^{*1}, Devyani Singh², Shonali Pachauri³,
Rob Bailis⁴, Hisham Zerriffi^{1,2}**



Using LPG: Health Matters¹

1. Introduction

The use of solid biomass for cooking causes high emissions of aerosol and gaseous pollutants evoking serious adverse impacts on human health. The World Health Organisation estimates that annually about 1 million deaths occur in India due to the use of solid cooking fuels. The Government of India (GoI)'s flagship programme, the Pradhan Mantri Ujjwala Yojana (PMUY) by promoting the use of LPG by poor rural households, can help substantially to reduce the health burden from indoor air pollution. The number of connections provided cumulatively has crossed an impressive 60 million.

Our study (Zahno et al. 2018) probed on the next important step in promoting rural well-being, namely, to understand the factors that can enhance the quantity of LPG consumption among these households, helping households to switch completely from use of solid biomass for their cooking. A behavioural economics approach was adopted in understanding and mapping household responses when supplied with information on the serious adverse health consequences of cooking with traditional fuels like fuelwood and dung cake.

The findings firmly establish that providing health information to households can change their preferences towards a greater valuation of LPG. This, in turn, leads to an enhanced consumption of LPG.

2. Data and methods

The study was undertaken in rural Bikaner district of the state of Rajasthan to understand the impact of providing health information on the consumption of LPG by poor households. An experiment embedded in a household survey was carried out among the rural communities of Bikaner district in the state of Rajasthan. The sample included 550 respondents spread across 55 villages, who had received an LPG connection under the PMUY programme, but were largely irregular users. The treatment group in the experiment consisted of households that received health information related to the serious illnesses that cooking with traditional biomass can imply. In contrast, households in the control group received some general information on LPG. Information was conveyed through verbal communication with the help of picture cards. Apart from the health information treatment, the survey covered general household characteristics, energy use patterns and questions related to health knowledge.

¹ This article provides some insights of the study Zahno et al. (2018) carried out in the framework of the Indo-Swiss Joint Research Programme in the Social Sciences. See also Dasgupta and Michaelowa (2019) for a policy summary.



3. Insights from the study

3.1 *Serious lack of awareness about health-risks related to traditional cooking*

Households are typically unaware of the important health benefits of using LPG on one hand. On the other hand, the health hazards of traditional cooking are by and large considered as transitory and simply a matter of getting used to the discomfort from irritants such as watering eyes and cough. In the initial round of interactions, only 13% of all respondents were aware of any relevant health effects, while 60% believed that there were just some minor transitory effects, and 27% were of the opinion that there were no health effects at all (see Figure-1).

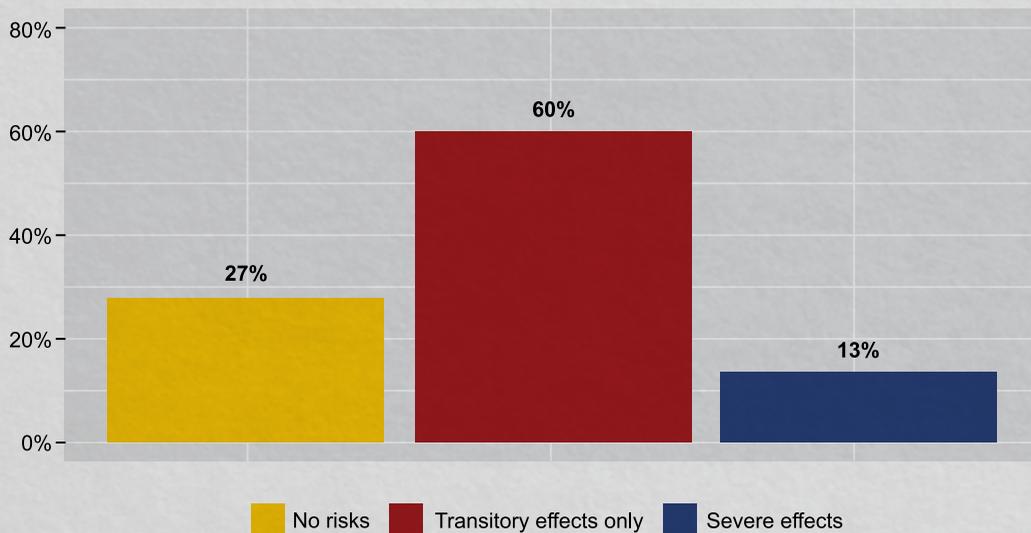


Figure-1: Health-risks awareness related to cooking with solid biomass [% of respondents]

3.2 *Willingness to Pay for doubling LPG consumption at given prices*

The household’s willingness to pay (WTP) for an additional LPG cylinder was assessed using a well-established demand revealing mechanism. This mechanism entitled the respondent to obtain a voucher with a price discount for the next cylinder to be consumed by that household. A specific deadline for the use of the voucher was set as to ensure that households could make use of the voucher only if they increased their current LPG consumption by 100%.

When asked to consume LPG twice as quickly as they would under normal circumstances, the average household in our sample reveals a WTP of 357 INR for a new cylinder. Households that received the health information are willing to spend an additional 10 INR with female respondents showing a slightly higher (INR 15) response.



These results are statistically significant. The overall difference of 10 INR between households with and without the health information may appear small. However, the amount has to be put in perspective given the low income of the respondents and the very brief information on health imparted to the respondents. Thus, one can expect much stronger effects if the information was more intense or repeated, or delivered by a trusted health worker.

3.3 Voucher use

The use of the voucher implies that the household truly consumed the remaining LPG in the initial cylinder more quickly than usual, and that the incentive of the discount on the next cylinder was sufficiently strong to trigger this behavioural change. Out of 296 vouchers handed out to the households, 35% were used.

Results show that providing health information increases the probability of the household using the voucher. The effect is statistically significant and strong with a 36% higher use among households that received the health information. Given the very brief information we provide, and the gap between the time when the information is provided and the date by which the voucher is used, this strong treatment effect is truly remarkable.

Statistical analysis of data on actual voucher use also reveals that the final purchasing decision is at least as likely—if not more likely—when the health information is given to men and not only women in the household.

4. Policy implications

Health information matters. Providing concrete health information in more intensive awareness information campaigns can be expected to strengthen the positive effects on household preferences and increase the consumption of LPG. It is important that the information provided has to refer to the concrete, serious health hazards.

Convince both men and women. Behavioural change is better triggered when both men and women are provided information and convinced about the health impacts. Else, the desired increase in actual LPG consumption may not take place since men are mostly responsible for the purchase of expensive goods such as LPG cylinders.

Complementary support is required to fill the gap in costs. Complementary support for investment in refills will remain important since it is improbable that even a broad-scale and highly convincing health information campaign will bridge the entire gap that currently exists between households' willingness to pay and the cost of a new cylinder even at subsidized prices.

Some commonly perceived constraints matter less. Factors such as transport costs, distance to supplier, worries about safety concerns and even the taste of food may matter less than some popular ideas may suggest, with less than 6% households citing



any of these as a highly relevant concern. There is rather a need to increase awareness on the existence of the subsidy and the manner in which it is paid into the household's bank account.

Interventions on the supply side that reduce investment costs and waiting time for refills go a long way. Recent innovations by the Oil Marketing Companies are in line with meeting the needs of poor households, especially those in rural areas. Two important ones that need to be spread wide and made more freely accessible are (a) the option to freely move between the standard 14.2 kg cylinder to a smaller 5 kg cylinder and (b) decoupling of loan repayments for the stove and the first cylinder.

To conclude, simply informing people about the deadly effects of smoke from the *chulha* can make a real difference to their lives, and this may be further supported by the measures mentioned above.

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Purnamita Dasgupta

Institute of Economic Growth, Delhi
and

Katharina Michaelowa

University of Zurich, Zurich



PM LPG Panchayat- An initiative in learning from LPG Consumers at Bottom of the Pyramid

The word *Panchayat* in Hindi language connotes a grass root level democratic meeting. LPG Panchayat brings together about 100 LPG customers together near their living areas on an semi structured interactive platform to discuss about safe and sustainable usage of LPG, its benefits and the link between use of clean fuel for cooking and women empowerment. Every LPG Panchayat includes sharing of experience by early local adopters of clean fuel, an exercise on comparing the costs of alternative bio mass fuels, safety demonstration and feedback on services.



Between May 2016 and January 2019, PM Ujjwala Yojana has added 60 million new LPG users. LPG Panchayat is targeted at them. It was launched in late 2017. In last 13 months 65,636 LPG Panchayats involving over 10 million participants have been organized across India.

An LPG distributor is affiliated with one of the three Oil Marketing Companies (OMCs), namely Indian Oil Corporation Limited, Hindustan Petroleum Corporation Limited and Bharat Petroleum Corporation Limited.

These meetings are being organized by the LPG distributors who are the first contact point of the customer. In more than half the cases (32322), the distributors have involved local NGOs, federations of Self Help Groups (SHGs), Producer Companies and Community



based organizations. A separate budget has been set aside by the OMCs for conducting a 100,000 LPG Panchayats during the financial year 2018-19.

Concurrent Feedback from the Ground

This has provided a semi structured opportunity for getting feedback from the ground and for involving a host of community level actors and organizations to get involved in the agenda of clean cooking fuel.

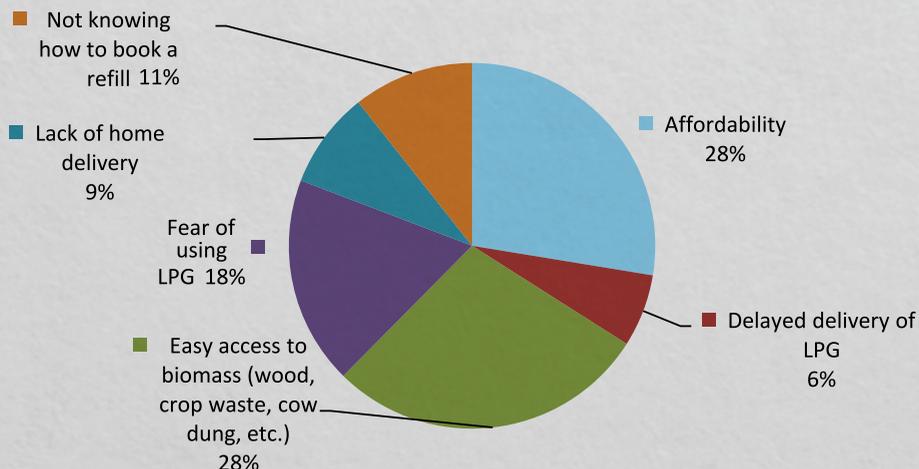
When combined with the individual grievances received through the call centers or directly through the distributors/field officers, this has helped the Oil Marketing Companies which control the sale of LPG in India and Petroleum Ministry officials develop a comprehensive understanding about quality of services as well as the changes that are occurring in the life of Ujjwala customers.

Local CBOs, SHGs and women leaders see the connection between women empowerment and clean and convenient cooking fuel. Through the exercise of LPG Panchayats they have also understood better the role of LPG distributor, their consumer rights and safe use of LPG.

These community gatherings have helped seed the ideas for promoting adoption of LPG further and enhancing accessibility of LPG to hitherto unreached groups.

Some of the impediments to LPG adoption that have been recorded through the LPG Panchayats are shown in the chart- Impediments to LPG Refill.

Impediments to LPG Refill



Source: Data from LPG Panchayats- Collect App as on 20 Jan 2019



Encouraging Clean Fuel Adoption

About 70% of the PMUY customers have availed interest free loan facility provided by OMCs towards financing LPG stove and/or first LPG cylinder cost. Under the scheme, OMCs are recovering the subsidy amount provided on subsequent refills from beneficiaries who have taken loan and adjusting the same towards the repayment of the loan. Hence 70% Ujjwala beneficiaries purchase refills at market price until their loan is paid back. Paying the market price for the initial few refills is an additional hurdle that was coming in the way of their shift towards a cleaner fuel, resulting in periodic slips back to biomass. To address this from April 2018 onwards, recovery of loan amount from Ujjwala beneficiaries for next 6 refills was deferred. This allowed Ujjwala Customers to get subsidy for their initial six refills bringing down the effective Cylinder cost to Rs. 500-Rs. 510.

An option has now been made available to Ujjwala beneficiaries to swap their 14.2 kg cylinder with 5 kg cylinder making cash payout for each refill more affordable.

To improve delivery, the number of LPG distributors has been enhanced from 13,896 in 2014 to 22,654 in 2018. Additionally, a tie up has been done with 300,000 Common Service Centers/digital service centers set up at village level to provide refill booking and cylinder delivery services.

The Ministry has launched an initiative giving buy back guarantee for producing compressed bio gas using biomass. This can potentially provide an alternative productive use for the ubiquitous bio mass such as cow dung and crop residue and may help wean people off from using it for cooking.

Enhancing Accessibility

LPG Panchayats also give a forum to those who still do not have access to LPG and are not able to buy it on their own. A persistent feedback from the ground was to open up the PMUY to other poor people also. In February 2018, PMUY was expanded to include 7 additional categories and by December 2018 it has been expanded to include all poor, who still do not have an LPG connection.

The following table gives a summary of all the initiatives targeted towards addressing the impediments that come in the way of LPG for all.

Key Timelines: Safe, Affordable and Clean Cooking Fuel for All	
Month, Year	Initiative
May-16	Launch of Pradhan Mantri Ujjwala Yojana- targeting 50 million users- basis Socio Economic Caste Census 2011
May-16	Conduct of LPG Safety Clinics for PMUY beneficiaries



Sep-17	Launch of Pradhan Mantri LPG Panchayat
Sep-17	Launch of replacement of 14.2 KG Cylinder with 5 KG Cylinder to facilitate easier refilling
Feb-18	Extension of PMUY- targeting 80 million users with additional categories Scheme to cover all SC/ST households, beneficiaries of Pradhan Mantri Awas Yojana (Gramin), Antyoday Anna Yojana (AAY), Forest dwellers, Most Backward Classes (MBC), Tea and Ex-Tea Garden Tribes, people residing in Islands and rivers
Mar-18	Deferment recovery of loan amount from Ujjwala beneficiaries for next 6 refills starting from April 01, 2018.
Apr-18	Gram Swaraj Abhiyan saturate eligible households with Pradhan Mantri Ujjwala Yojana amongst other governmental schemes in 21,058 identified villages across India
June-Aug 18	Extended Gram Swaraj Abhiyan in 117 Aspirational Districts to saturate eligible households with Pradhan Mantri Ujjwala Yojana amongst other governmental schemes
Sep-18	SATAT initiative to promote Compressed Bio-Gas as an alternative, green transport fuel using agricultural residue, cattle dung and municipal solid waste (often used as alternative fuel for cooking)
Nov-18	Tie up with 300,000 Common Service Centers for refill booking and delivery
Dec-18	Extension of Ujjwala Yojana connections to all poor households

LPG penetration in India has risen from 56% in 2014 to 90%. The juggernaut to make clean cooking fuel accessible, affordable and safe to use is still on the roll.

Nidhi Prabha Tewari

The author works as a Senior Social Sector Specialist on PMUY and has been part of PM LPG Panchayats since their inception



Nudging households to increase the use of clean fuel



Pradhan Mantri Ujjwala Yojana (PMUY), launched in 2016, is an ambitious social welfare scheme that will provide subsidized LPG connections to 50 million women in poorest families in India. The program has the potential to not only improve the health of these households but also empower women as the subsidy is directly transferred to their bank accounts.

This article seeks to explore and estimate the impact of this scheme on household's usage of LPG, women's time use and psycho-social well-being, as well as health of household members. As a part of the

research we have designed a cluster-randomized control trial that aims to evaluate the effectiveness of health and LPG subsidy information provision through ASHAs on increasing the utilization of LPG cylinders vis-à-vis traditional methods of cooking in rural areas of Indore district of Madhya Pradesh.

Research study estimates that the annual health burden for India from indoor air pollution to be 1.6–2.0 billion days of work lost in terms of sick days. High initial investment required in clean cooking technology and fuel (i.e. stove, cylinder, gas, regulator and pipe) has been the most frequently reported barrier to initial adoption by those with fewer economic resources and among those collecting wood for free.

Disproportionate division of labor within the household results in women collecting over 56% fuel wood whereas they contribute little to the household income. Moreover, women's psychological well-being is likely to be affected by household chores.

A study that focused primarily on improved biomass cookstoves, but also analyzed the use of other cooking solutions, including kerosene and liquefied petroleum gas (LPG) (Global Alliance for Clean Cookstoves), showed that women who saved time due to clean fuels increased their involvement in social and family activities, including spending time with children and monitoring their studies.

Adoption of LPG may enable women to invest this saved time and effort in collecting solid fuel, to more productive activities. An improved status for women in the household will result in cleaner fuel choices and better health outcomes – thereby creating



positive feedback mechanisms. An assessment of these displacement activities within households is important to judge the overall impact of PMUY on women empowerment.

PMUY lowers the initial high cost of access to LPG for poor households. A higher adoption of LPG, through regular demand for LPG refills, will likely substitute for currently used solid fuels. What needs to be learnt is the extent of this substitution, once households have received the LPG connection and what determines household behaviour in switching to regular LPG usage. These questions are important to ensure effective implementation of PMUY and significantly shift a large proportion of our population permanently away from solid fuels.

In our study of methods to improve utilization of LPG, in study we made a baseline survey of 3000 households (both Ujjwala (24%) and non-Ujjwala (76%) beneficiaries) in Indore district conducted during November-December 2018. We found that the majority of households are unaware of the long-term adverse health impacts (only 12% of sample said 'yes, there may be long-term adverse health effects) of using solid fuels 33% of households had no LPG connection. While 74% cooked with LPG, majority of households combine fuels – 88% use cow-dung and 75% use firewood. Thus, exclusive use of LPG as a cooking fuel is very low. In addition, most households are unaware of the financial benefits of LPG – first, the effective cost of 1 LPG cylinder per month would be less than Rs. 20 per day even as market prices fluctuate (@approx. Rs. 550 per cylinder out-of-pocket expense with DBT). In our sample households that purchased firewood, the average monthly expenditure was higher than an LPG cylinder at Rs. 790. Second, in our survey we find that on average cooking time per meal is 20 minutes extra with firewood. This effectively implies saving at least 1 hour per day on cooking while additional time is (approx.3 hours on a day that a member collects firewood and 12 hours in a week) saved from collection of firewood and cow-dung.

The two main constraints to regular LPG usage is financial, more often liquidity constraints and often taste-based preferences. Information to households on the adverse health effects of solid fuels, which can raise health expenditures and impact the long-term outcomes of their children besides improving the understanding of how LPG DBT reduces out-of-pocket expenses, may help in making LPG use more regular in rural India. We will test this hypothesis following our ongoing information campaign and the end-line survey in December 2019. Such an information campaign, if effective, will be a low-cost policy measure that can have far-reaching implications for shifting households permanently to clean fuel in India.

Farzana Afridi^a, Sisir Debnath^b and E. Somanathan^c

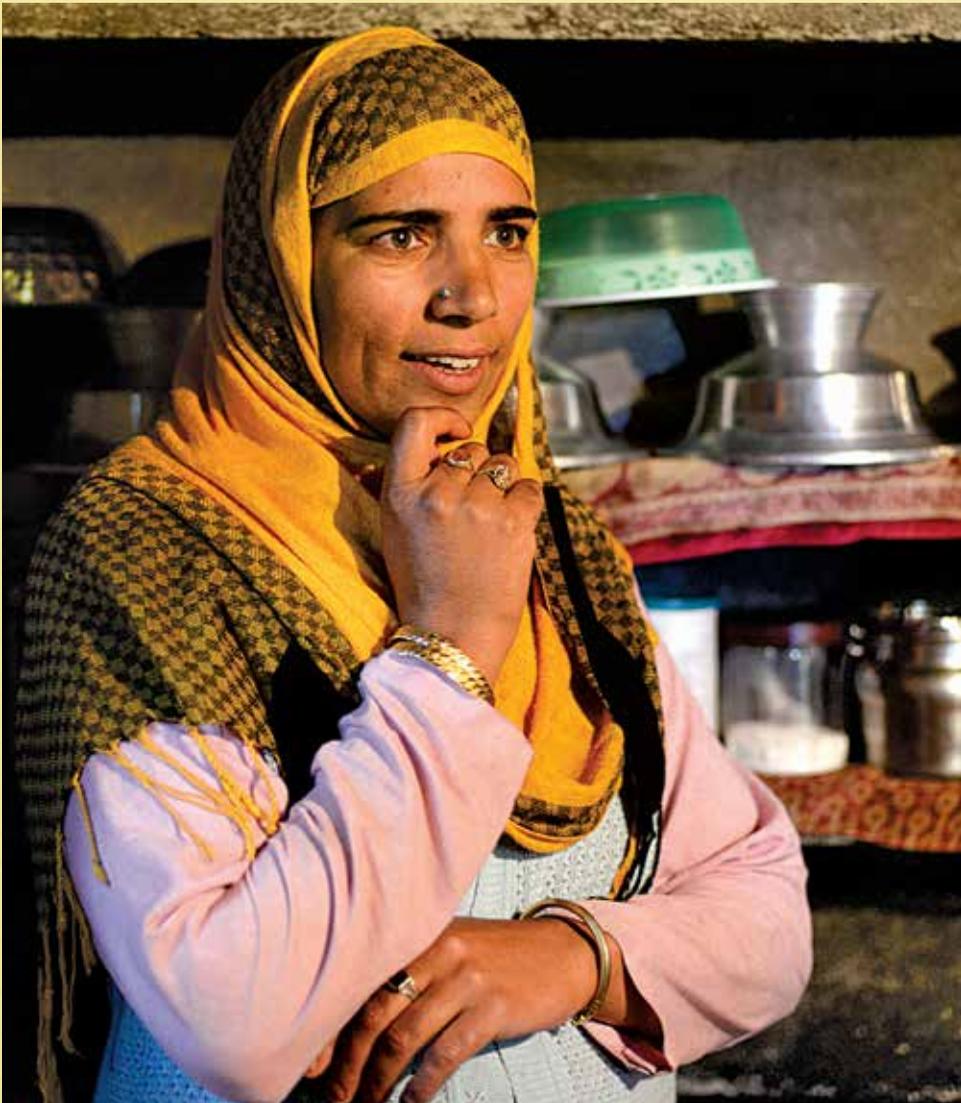
a. Indian Statistical Institute (ISI), Delhi

b. Indian School of Business (ISB), Hyderabad

c. Indian Statistical Institute (ISI), Delhi



Insights on PMUY from OMC Mentors





Extraordinary circumstances require extraordinary steps. These are the situations where leaders will be separated from minnows and weak hearts will fade in oblivion to give way to the brave-hearts with courage and passion to succeed. This is, as summed up in this section, a payback time of the debt to the women of our society for the immense love and affection bestowed on us by our mothers and sisters. It outlines the uphill task of providing 6 crores LPG connections to the marginalized section, facing untold atrocities of the society, including working on chullas which bellow smoke, where lungs choke and eyes with tears. Such an agony of cooking in smoke filled kitchens is unthinkable in the modern developed world. In a developing country like ours, our women have continued with the age old habits of cooking on firewood and biomass fuel in spite of knowing the problems it entails. This section elaborates the experiences of the mentors who have been in close contact with the PMUY plan and shares their views in brief. They have accepted the challenge of knowing the unknown and bringing in transformation and have been completely successful in doing so.

The Pradhan Mantri Ujjwala Yojana (PMUY) was introduced to improve the lives of rural women and break centuries old habits of using cow dung & biomass as fuel for cooking. The challenges were almost insurmountable, and hard to overcome, as the PMUY beneficiary population was mostly illiterate. One of the main reasons was the thought of giving up cooking with free fuel in place of one which comes with a price. Changing cooking fuel is a major life altering decision that needs a lot of time to be accepted and implemented in full force. The social and mindset barriers to cross were high, but the functional heads led the charge with a comprehensive well organized plan, which could ultimately break through the barriers and instil the necessity of switching over to a cleaner fuel for their healthy living and further empowerment. It was only a matter of time for the persistence and patience of our teams to make headway into a domain, where no one has dared to tread.

PMUY is probably once in a lifetime activity, an initiative which was never seen before even by the LPG heads in states, who have spent a good 25 to 30 years in the Industry. This section highlights the challenges ranging from affordability to home delivery of cylinders under the PMUY scheme. It also sheds some light on the safety issues in PMUY households and ways they were dealt with. The problems associated with LPG as well as usage trends, barriers in adopting it as the primary fuel and refill issues have been discussed in this section.

The mentors needed to be positive and motivate their teams to seamlessly roll out the plan, at the same time they had to handle various pressures, acting as cushions or shock absorbers, without passing them down the line. Thanks to their leadership mettle, the roll-out was completed ahead of target and 60 million smiles were ensured- no mean feat, even for the best in the Industry.



PMUY– A small step for women, a huge step for womankind

*“ You educate a man; you educate an individual.
You educate a woman; you educate a generation ”*

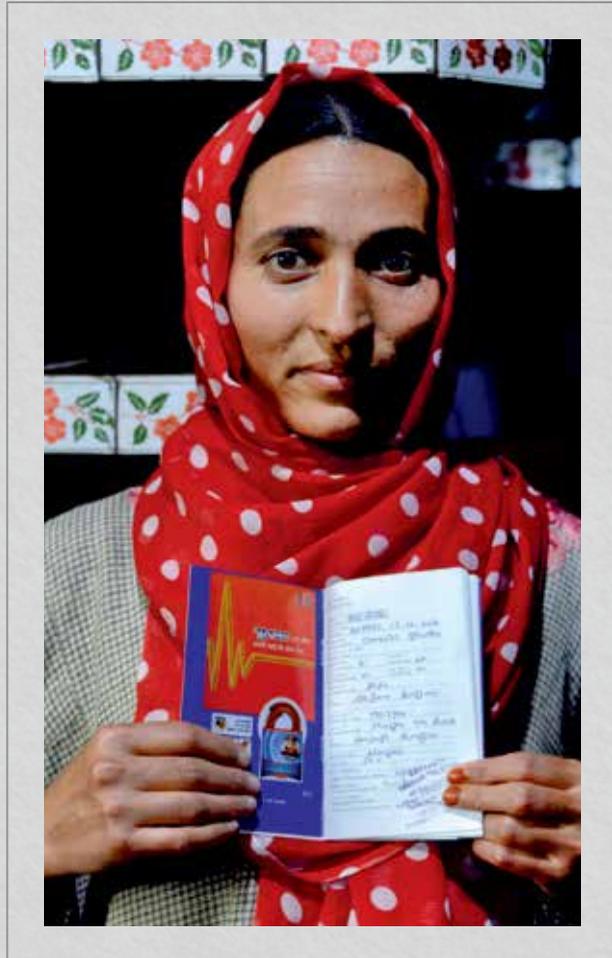
It is rightly said that Rome wasn't built in a day and that the light bulb took almost eighty years to be used without the fear of electric fires. Sati took almost half a century to be abolished and equality of the sexes is still just a dream for many. Social change of any kind has always been the most difficult to achieve. History bears witness to the fact that big, radical changes have never happened easily or quickly. Similarly, the Pradhan Mantri Ujjwala Yojana (PMUY), an effort to improve the lives of rural women, launched in 2016, has marked the beginning of an era. It promises drastic changes in the lives of rural women. A policy of this kind ensures massive social change. To rid people of old, deep rooted habits, is a mammoth task that requires more than just resources and correct implementation. It requires a lot of patience. To think of giving up a way of cooking with free fuel for one which comes with a price, naturally, people are hesitant.

Women in villages or from poor households often use cow dung cakes or wood for cooking. As per a WHO report, smoke inhaled by women from unclean fuel is equivalent to burning 400 cigarettes in an hour and you would be living under a rock if you don't know what hazards that entails. It isn't just the watery-eyed, dry throated women but also the children who are often in the vicinity during this arduous cooking process.

LPG, on the other hand provides them with a clean fuel with which doesn't even take that long to cook. So, women would have more spare time on their hands which they can choose to use as they deem fit. There's no question about health hazards associated with LPG because there are none. It doesn't cause any air pollution and is a boon for the environment and most importantly, women don't put the lives of their children in jeopardy, even unknowingly, using polluting fuels. This policy is, as they say with respect to women - "a small step for women, a huge step for womankind". No more slogging in front of a stove covered in sweat, ash and smoke. When the world goes on about women empowerment and equality of the sexes, everyone forgets to address the pleas of those who don't even realise that they need help. They say the best way to imprison a person is when the prisoner doesn't even realise he/she is imprisoned. In this case, it becomes really easy to overlook those who don't realise the risk they are putting themselves, in by confining themselves to 'free' fuel and stripping each other of the opportunity to progress. In the free time, these women will get by using LPG, they can get educated, take care of their children, venture into avenues they previously thought impossible.



The advantages are of gargantuan importance. The fuel does come with a price but a monetary price is any day better than the hidden costs. Even the poorest of the poor will not put their children at risk for saving money, especially if they realise that by exposing themselves and the children to the smoke, they don't just risk death but also a lifetime of pain and a diseased existence. Changing one's cooking fuel is a major life altering decision that needs a lot of time to be accepted and implemented in full force. The aim right now should be and is, to make women aware of the benefits. When women in a neighbourhood see their contemporaries having spare time and better health, they'll transition as well. But this is neither a one-person nor a one-day job. To empower women, we need more than platitudes to address the need of the hour. This policy aims at empowering women from the lowest income households. Empowerment is often preceded by education. But to be able to earn a livelihood and to be independent is empowerment in its truest sense. With LPG connections, women will be done with their cooking much faster and can then decide to sew, draw or even get a formal education and start a new life. They won't have to miss family gatherings or panic at the thought of guests coming at odd hours. PMUY aims at educating generations when the world talks of educating a few. We aspire for an equal world with talent budding from the most unexpected places, a world without a glass ceiling and a sea of opportunities. The PMUY is the first, and hopefully a forerunner, to many more of its kind, which ensure that we change as the world changes around us.



Dharmendra Behura (HPCL)
Bhubaneswar



Cascading Effect on Income from Women Empowerment

Pradhan Mantri Ujjwala Yojana is a historical scheme to aid poor sections of the Indian society. It helps in eradication of the old norms and facilitates implementation of modern techniques for making life easier. Prime Minister Narendra Modi has launched the Pradhan Mantri Ujjwala Yojana in Balia District of Uttar Pradesh with the sole motive to do away with age old traditional fuels and use LPG as an alternative, by making it available to women from families that are financially backward.

The main objective of Pradhan Mantri Ujjwala Yojana is to enhance the status of women by providing free connections to Below Poverty Line (BPL) households. It aims to free women from drudgery of collecting fire wood, by providing clean fuel and lessening the serious health risks related with cooking based on fossil fuels. This would reduce the number of deaths due to unclean cooking fuels, as well as prevent young children from acute respiratory illnesses caused due to indoor air pollution by burning the fossil fuels.

People in rural India suffer tremendously due to the use of polluting fuels. Approximately 2.52 million people die due to pollution in India every year. Household pollution resulting from the burning of biomass *chulha* (stove) is a major contributor to this statistic, said Swati Mohan, Business Head, National Geographic and Fox Networks Group India.

In traditional patriarchal societies, such as most of rural India, women are assigned the responsibility of household duties, which includes the preparation of meals and by extension, procuring the means to do so as well. This exposes them to the health risks of indoor air pollution, and beyond it, to the risks and drudgery of procuring the energy sources. This is particularly true for rural areas of the country.



In light of this problem, the Pradhan Mantri Ujjwala Yojana (PMUY) aims to prevent the negative health implications due to the exposure of indoor air pollution. This will prevent deadly diseases like tuberculosis, asthma, skin irritations etc.



Savita Devi from Darbhanga is now able to find time to stitch blouses and bags. Speaking about the amount of time and energy she had to spend in collecting biomass for cooking, she narrates her woes saying that sometimes she had to leave home at 6 in the morning and did not get back until noon after collecting fire wood

for cooking. As a result the children, the elderly and the sick were left unattended at home. PMUY has given them freedom from their tiring daily chore of fuel collection and hence they are now able to get some time for their family members.

Nirmala Devi of Araria smiles and tells us that it costs hardly Rs. 10 daily for using LPG. Earlier, she occasionally had to buy cow dung cakes for Rs. 50, which lasted them just for a day. Food is cooked faster on LPG and she now has enough time to do other activities. She is really satisfied and is a proud beneficiary of PMUY.

One of the most important advantages of this scheme is the step towards women empowerment. Empowering women has been found to contribute positively to the health of households as women are directly involved in household decisions on energy use and expenditures. The more empowered women are, the lesser their burden, the more likely they are to engage in income-generating activities, and hence, increase the purchasing power of the household. Further, empowered women are healthier and ensure healthier households, increasing the likelihood of educated children, which in the long term, leads to an even higher generation of income for the household.

The programme has also witnessed the emergence of a peer learning platform: Pradhan Mantri LPG Panchayat. LPG Panchayats being held at village levels across India are helping people appreciate the advantages of clean fuel. More and more people are realising the importance of LPG and its benefits. They are developing a positive mindset and clear views about their health issues and are taking measures to prioritize it for a safe environment.

Kalyan Kumar Roy
Purnea LPG Region



Smokeless Villages through PMUY– From a Vision to Reality

I vividly recall that chilly day towards the end of November 2015, around five months prior to the launch of PMUY, when Sh B Ashok, the then Chairman of IndianOil, who was also the Vice-President, World LPG Association (WLPGA) and a member of its Board of Directors, called upon 20 Women executives of LPG department of IndianOil. These executives were working in different capacities and official hierarchies on an All-India basis. They were asked to sit together for a brainstorming session, so as to evolve adoptable strategies and models for promoting LPG as a clean and modern fuel in the rural villages in the country, which were under the purview of Indian Oil Corporation. This session was chaired by him and he implored the women executives to hold this cause close to their hearts, keeping an empathetic outlook, serve the society with corporate responsibility. He emphasized that it was our turn to give back to the Society and especially to women 'Below Poverty Line', in order to empower them through their kitchens! Since our Chairman was also the Chairperson of the 'Cooking for Life Initiative' of the WLPGA, he could bring about a methodology through the 'Smokeless Villages' concept, whereby a few thousands of villages were declared smoke-free by IndianOil and other OMCs by March 2016, before we embarked on the prestigious PMUY programme!

Ever since November 2015 and then formally from May 2016, we have gone ahead with a gusto and matchless passion & zeal, to become instrumental in releasing LPG connections in all possible sectors, to BPL women whose names appeared in the SECC list under PMUY. We ensured and promoted the safety and conservation norms and practices amongst the beneficiaries of the PMUY. We ensured that their installations were safe to handle. For making this happen, the task initially was an uphill one. Communicating with the rural women from the remotest interiors of the villages and then convincing them that LPG was not only a clean fuel to be used extensively in cooking but also that it was cheaper option, was indeed one which required maximum efforts on our part! Even while heading a business location in NOIDA, I was able to work as a harbinger and catalyst for bringing about social change in the poor and below poverty line families by reaching to them, Indane connection at subsidised rates or even refills on loan as per the Government scheme. I am glad to have been instrumental along with my team members and channel partners i.e. distributors, to promote and popularise LPG by offering a clean alternate fuel in form of LPG.

For making a positive and effective impact on the lower strata of society with LPG and more so to attract, coax and convince womenfolk to use LPG and to tell them about the benefits of this clean fuel was a tremendous job. My own experience with PMUY implementation has been a very rewarding one. The field visits, interaction on one-to-one basis with the women folk in their comfort zones, partaking food with them and taking



part in their daily life events as well as special ones like wedding ceremonies, *pujas* or festivals, was momentous and memorable ! Walking door to door, talking to Sarpanch or village elders or with women in a group with self help lady assistants was an experience worth treasuring. Be it the 'Bhagwanpur' hamlet in district Meerut or 'Mangroli' in NCR district of Gautam Budh Nagar, each place had its own charm and challenges, which we surmounted sometimes with a little or at others, with more effort. The positive response we got from the womenfolk and the smiles on their faces once they received the Indane connection under PMUY was worth our efforts. To bring them out of their previous smoke filled life to a clean smoke-free environment provided a platform to the beneficiaries of PMUY to build their lives forward stepping slowly on the foundation laid for them. Every interaction and experience with each lady benefitted by PMUY was worth capturing and keeping on record.

Along with my team members, I have been closely associated with the mentoring the students of a local Management Institute, where we undertook upon ourselves, to inculcate in them a sense of Social responsibility towards women in particular, and the society at large. We roped in students to give 30 hours of their CSR activity to our PMUY beneficiaries, to survey and determine the impact that the LPG connection released in their favour through PMUY has made in their lives at present. They were also asked to





ensure that these beneficiaries learn the proper use of LPG as a clean cooking fuel and the benefits that accrue in the form of the improvement in health, saving of time and resources and give them some economic thrust to adopt means of earning more money for their families.. For this, we had inked and signed a Memorandum of Understanding (MoU) with the Jaipuria Management Institute in NOIDA, so that their 300 plus students, in collaboration with the channel partners of Indian Oil Corporation Ltd., could visit the PMUY consumers of LPG in rural parts of our 11 districts in state of Uttar Pradesh, India under our Area Office at NOIDA.

As the head of our NOIDA Area Office, responsible for reach of LPG to the farthest and remotest corner in our 11 western UP districts, I have also had the opportunity to mentor many of my Channel partners. Sometimes, our LPG distributors require a lot of mentoring, guidance and handholding and this is precisely what I have tried to provide in my various capacities. When I joined NOIDA Area Office there were only 166 LPG Distributors i.e. Channel Partners under our jurisdiction, but I am happy to share that at the time when I left that office after 6 years this year, their numbers had increased to 327 i.e. almost double. This meant that in the same geographical area and state boundary, we had increased the reach and penetration of LPG to the interior most, as well as the most far flung and remotest areas, which is a success story in itself. Another 50 persons at different locations were also in the process of setting up such distributorships in the near future, which would easily take the tally of our channel partners to over 375!

We are contributing in a big way to the Government of India initiatives of reaching out to the interior most parts of India especially the rural belts of the country. We have succeeded in increasing the penetration of LPG from mere 63%, three years ago to almost 90% now. We have also successfully given away 6 Crores of free LPG connections to the women beneficiaries across the country in a span of just 32 months, on Industry basis, which is in itself a yardstick to measure the intensity of involvement of both the Government and the public sector Oil Marketing Companies in PMUY

Promotion and publicity of the various available schemes is being done in a big way by the Government and our company too. These schemes are ongoing with a single minded vision and mission to serve the masses of the country, and saturate all the villages with LPG, apart from the urban areas. The vision, of providing each household whether urban or rural, with a LPG connection to make them smokeless or free from smoke and to improve their lifestyle and protect the environment around them is turning into a reality. I see myself contributing in all possible manner, participating in all possible ways with full enthusiasm and zeal, be it focussed discussions on various platforms and forums or field work at the ground level in the rural parts of the country. Our endeavour is on to eliminate the drudgery of womenfolk in the country and empower them beyond the visible horizons.

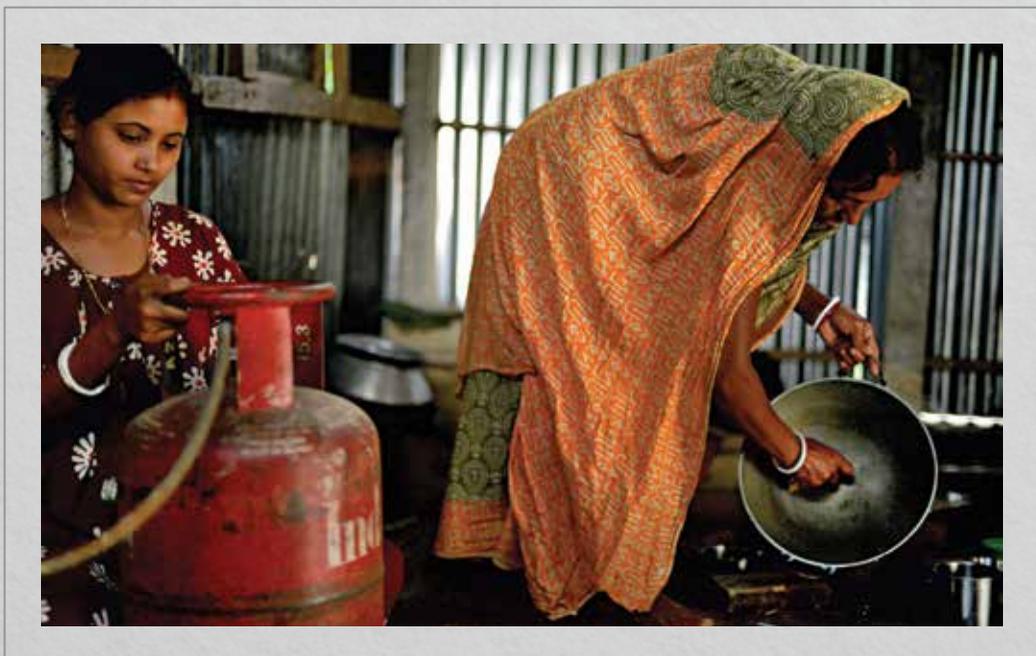
Rummana Qidwai (IndianOil)
Delhi State Office



Safety First– Educating the Rural PMUY Beneficiaries

May 1, 2016 was a momentous day not only in the annals of the country but perhaps in the history of mankind. This was a day when the ambitious program to change and transform lives of 50 Million women folk by reaching clean cooking fuel to their kitchen “PRADHAN MANTRI UJJWALA YOJANA” was launched from the laid-back town of Balia in UP by our Hon’ble Prime Minister Sh. Narendra Modi. It has been truly a blue flame initiative transforming lives. This initiative created an impact on the people and was extremely well appreciated for its commencement. Thus we can proudly say that this scheme was well appreciated by all.

Earlier on, women used cow dung and bio fuels for their cooking needs which wreaked havoc on their health. They used to spend hours searching the land and forest region to collect wood and biomass. They had no time left to do anything else for themselves and perhaps prayed for their pain to be eased. It was as if God heard their prayers and thus PMUY was introduced. LPG was not just an inspirational cooking fuel for the underprivileged and the downtrodden, rather it was a life changing initiative. A gateway





to improved health, enhanced income levels by productive utilization of the spare time and financial empowerment. It was literal emancipation from male hegemony - the subsidy getting directly transferred to the (women) beneficiary account.

The PMUY scheme acts as a catalyst to uplift women. It creates the stage for women to do something for themselves and for the society as well. Thus, we can proudly say that this initiative is something way beyond our imagination which has impacted the societal norms of cooking traditionally using fire wood.

As a leader, guidance to the field force at each and every stage of the scheme was crucial. Keeping motivation level of the field force high and overcoming resistance to change, were major challenges initially. However, after the implementation of PMUY at grass roots, the feedback from beneficiaries left a feeling of satisfaction. I am happy that its implementation became a reality on-ground, and am proud to be a contributor in the up-liftment of crores of poorest households, especially in rural India.

Every success story has its pain and struggle and PMUY is no different. The habit of squatting while cooking was a major obstacle in safe usage of LPG. The sitting posture while cooking is a centuries old habit of women due to the use of traditional *chullas*. However, in case of LPG, cooking in a sitting posture is considered unsafe. Again, we took the challenge in our stride, and our field force conducted number of safety clinics in villages. This was followed by LPG Panchayats at various vantage locations. Through repeated demonstration, clinics, panchayats, beneficiaries slowly became aware of the safe way to operate LPG and the process of cooking in a standing posture. Though we succeeded in creating awareness regarding LPG and its safe usage, we continue to be on the job and our safety campaigns are a work in progress. We took the challenge head-on and I am happy to say, that we have emerged winners.

Bringing about any change is definitely not an easy task. People were initially skeptical about how things are supposed to function. Making them realize the safe use of new technology and its advantages was the biggest challenge. In our case as the majority of beneficiaries were almost illiterate, the challenges were manifold. Further, since we were dealing with women brought up in a conservative milieu, this had to be handled gently. Fortunately, I have a great team, who worked hard and we came out with flying colors. From this experience, we have realized that by laying the pros and cons on the table, we can help people adapt to change much faster.

With 6 Crore connections and counting, we will soon see all households with LPG connections. I, as an individual, feel privileged to be associated with an initiative of this mammoth scale and pray for its grand success.

Amarendra Kumar (BPCL)
Bihar



PMUY– Challenges Ahead



Since the launch of PMUY on 1st May, 2016, in Balia UP by Hon'ble Prime Minister, we have witnessed from close quarters, PMUY transcending from a Government scheme to a social revolution in merely two and half years in 16 districts of Uttar Pradesh .

Through our interaction with beneficiaries from Below Poverty Line and regular visits to their villages, we have observed a sharp decline in gender inequality in rural societies. Earlier, while the womenfolk struggled with unpaid work of the household, LPG now has enabled them to pursue constructive activities, thus adding to their family income and a better future. It has also resulted in smoke-free homes and easier handling of cooking utensils which now have little traces of carbon and soot stains.

The onus of procuring firewood has always been on women and girls. These girls can now afford to go to school. The threats and security hazard associated with collecting firewood are also considerably minimized. Further, regular field visits by Sales Officers, DNOs and the dealer network have resulted in layered interactions and better understanding of the social problems affecting the marginalized sections of the society. This has encouraged the team, including the dealer network, to develop an emotional connect with the end users, while taking forward this scheme and achieving the mammoth target in record timelines.



At the grassroots, we have also observed increased awareness about other government schemes & citizen rights and improved status of women in households across geographies. Coordination with District Magistrates and officials from State Governments were at its best during the implementation of scheme, resulting in record & smooth release of ration card, caste certificates, and other official documents, be in Shravasti (wherein a record 2000 plus ration cards were released in a week) or in Kannauj. Even for cases where PMUY connection could not be released to families because of ineligibility, our efforts in getting them a ration card and other certificates received generous appreciation from the villagers.

During our interaction with teachers / principals of MDM schools, where safety clinics are conducted at regular intervals, we observed significant improvement in attendance, primarily because women could now prepare breakfast timely, enabling children to attend school. Safety clinics have also played a crucial role in adoption of LPG by households, by clearing myths and misconceptions about this kitchen fuel.

Interaction with Gram Pradhans has also been quite enriching. An appeal to them to take forward PMUY has resulted in timely issue of ration card, SC certificates, and other official documents. In fact, the Gram Pradhan of a village in Nanpara, District Shravasti has taken the initiative to construct brick-mud mortar platform in all households for safe installation of LPG and has helped us in making the village smoke-free.





In spite of all the positivity PMUY entails, there are certain difficulties faced by the users. I have tried to discuss some of these issues in this article.

In a few cases, PMUY customers are finding it difficult to refill cylinders and are shifting back to previous resources. In the absence of information about refill booking, people are taking a step backwards and switching back to their age old methods for cooking. On ground information and dissemination of information at the grass roots is checking this problem to a large extent.

Conventional fuels allowed women to sit and cook, while when using LPG, one has to stand. This calls for change in age old practice and usage trends. While a few have adapted to this new method of cooking, others are finding it difficult to change their cooking habits, especially the elderly. Safety clinics and LPG Panchayats shall help in adopting this new method of cooking in future.

Affordability of LPG as fuel of choice shall be possible only when most people can afford to use it on a sustained basis. To make it more affordable, the 5 kg cylinder option is being given to the beneficiaries for a smaller one-time investment.

During our interaction with beneficiaries, many have expressed that they are unable to gauge when their LPG cylinder is close to being empty. As a result, they are unable to make financial plans for their next purchase. Sustained usage will give them enough experience to know how long a refill shall last in their household, and this hurdle would soon be over.

Another major challenge is the safety of LPG cylinder; we have observed that most of the rural population store dry firewood sticks and cow dung adjacent to LPG stove, creating a potential safety hazard. This creates safety issues and chances of accident are high. Safety clinics and repeated information on safe practices through TVCs, safety instruction cards and LPG panchayats is making them more aware of safe usage of LPG.

We have also observed also that the PMUY beneficiaries are not comfortable using interactive voice response (IVRS) for refill bookings and still rely on a showroom visit or calling the delivery boy.

Home delivery is also a challenge as delivering door to door is a tough job due to inadequate logistics and infrastructure at dealer's end.

Despite these challenges, PMUY still is a beacon of light, a hope for millions of our mothers and sisters who have been liberated from centuries of agony of cooking in unhealthy smoke.

Head of LPG
Lucknow (HPCL)



Experiences @ Ground Zero





The lifeline of any organization is its channel partners. The fuel which reaches our home is the result of the hard work put in by our weathered supply and distribution sentinels, who work round the clock to ensure two square meals for us. The LPG distributors played a major part in rolling out the PMUY initiative in a phased and effective manner. The LPG distribution channel proved its mettle, when tested to its limits by having to provide LPG connections to an additional 6 crore households in three years, with challenges which were never heard or dealt with before. A lot of faith was put in our time tested channel partners who have been serving the Nation for long. However, this time the challenge was not only that of distributing LPG cylinders, but also to assist the District Nodal Officers in identifying beneficiaries, visiting their homes, convincing women to start using LPG, ensuring safe practices, to name but a few. The work boundaries of just procuring and supplying LPG were no longer valid in this scenario. A more passionate approach was necessary, which was never found wanting amongst the LPG distributors.

In the PMUY value chain, channel partners were probably the closest to the customer. Not only did they know the geographies, but also the residents by name. Further, they have a 24X7 connect with them and are the first to respond in any emergency. This section is an ode to the channel partners and their views as they saw PMUY spread across their distribution landscape in the short span of 3 years. The span though short did not have a dearth of life changing incidences, shared by them in this section. Their task was near impossible, but they came out with flying colors. They are deserving of accolades, who, along with our officers have turned the tide against time and achieved the unachievable.

They share their stories in this section with a glow in their eyes reminiscent of the glow of the blue flame of LPG.



An Ode to the Oil PSU Officers: PMUY a Mission Made Possible

Selfless service is always regarded as a hallmark of a great person or institution. I recollect the day when I was selected as an LPG distributor of IndianOil. From that particular moment, I realized that IndianOil regards 'Service above Self' as its basic ethos in order to serve society.

When PMUY was launched in 2016 the timelines were to achieve targets over the next 3 years. The intent of the scheme was to make LPG available to rural women who are financially backward, thereby changing their social status and protecting their health. It would also prevent young children from acute respiratory disease caused due to indoor air pollution. This scheme also provided opportunity to the unemployed or





self-employed individuals of India. The implementation of the world's greatest social initiative subsequently aimed to cover 8 crores women from Below Poverty Line (BPL) households by year 2020. Seamless implementation of a target of this magnitude could not have been possible without the involvement of the Oil Marketing Companies, who played a key role in reaching LPG to every BPL kitchen. Three years ago, this initiative was unheard of and was to some extent, unbelievable. But IndianOil and its channels partners have toiled relentlessly to make the dream of our Hon'ble Prime Minister Shri Narendra Modi of an empowered India come true.

With a focus on the benefits PMUY had to offer, history had to be rewritten, However, our experiences from the past made us believe that a few challenges were evident. The first difficulty that I encountered was the incomplete, and in some cases erroneous SECC data. In some cases, name, age mismatch etc. were found. In spite of such challenges and difficulties, we worked tirelessly on the job to implement the PMUY scheme on a war footing.

The IndianOil Nodal officer of Malda District, had repeated meetings, sharing with us the Pros and Cons of the scheme, guiding us, and working with us at ground zero, which helped us immensely. Public *melas* were organized at various locations for release of connection to BPL families. It was a boon for both men and women, as Pradhan Mantri Ujjwala Yojana offered subsidy in the Jan Dhan account of the women PMUY beneficiary of the family, thus curbing any chances of corruption.

During the ongoing 3rd phase of PMUY, I on my part, assure a total coverage of providing LPG connection under my designated area. I along with my district nodal officer of IndianOil, solemnly promise that I we will not leave any stone unturned to provide the poor what is due to them. Achievement of improbable targets and completion of a mission, would not have been possible had all stakeholders supported the vision of our Hon'ble Prime Minister by internalizing, the message of "Sabka Saath Sabka Vikas". This reverberates with the IndianOil values of "Service before Self". Together, we have turned the tide of challenges into opportunities and worked 24X7 to provide what was long due to the poorest of the poor in India.

Ujjwala Yojana has brought smiles on the face of millions of downtrodden in the society but this mission impossible, as it was thought of 3 years back, has been made possible by the marvelous sync of mind and heart of thousands of grass root workers and officers along with the other stakeholders, who deeply believed in this mission and volunteered to be part of this historic revolution. Let take this opportunity to salute the sacrifices made by thousands of social revolutionaries, especially officers from the Oil PSUs who have played a stellar role in the implementation of PMUY and have contributed to Nation Building.

Dipankar Ram

Proprietor – M/s. Apex Indane, Malda



Ujjwala can buy us time: PMUY from a Woman's Perspective

I hail from a place which is pristine and picturesque in the lap of nature, lying virtually unexplored, with her six other sisters that are united by a bond of warmth since their inception. It is geographically alienated from the rest of the country, perhaps destined so by God, as a part of his secret plan to protect it from the exploitation by mankind in the name of economic development. I come from a place where the first oil well of Asia was dug by the imperialist rulers in Digboi, Assam. This is the place where the world famous largest river islands Majuli and the smallest river island Umananda exist. The sprawling tea gardens of Assam give the appearance of being a green carpet over Mother Earth and the one horned rhinos and elephants roam the grasslands of Kaziranga fearlessly. The renowned weavers of the Suwalkuchi weave their dreams in their looms. Assam is nature's hot spot, where the melodious sounds of migratory birds brings relief to the hearts of the weary travelers in Manash Wild Life Sanctuary.

As a victim of misfortune, I lost my young PWD engineer husband when I was only 27 years old, with my son in my lap and daughter at my breast; I experienced how hard life is for a woman to survive in a chauvinist male dominated society. The hardships I faced as a working mother, strengthened my resolve to work for the betterment of women. However, with the burden of my family and a meager salary deterred me from taking the final plunge into full time social work. However, with God's blessings, I got an opportunity to join as a LPG distributor of IndianOil through its Corpus Fund Scheme. The advent of PMUY, a brain child of our Prime Minister aimed at welfare of economically weak women. I felt, it was a God-given chance to finally repay my debts towards the society-a desire which I have fostered for so long. I devoted myself wholeheartedly towards the implementation of the scheme.

After a long journey and a year of arduous work on implementation of PMUY with the IndianOil team, one day I was informed by the company officials that two lady distributors of IndianOil including me, along with a few beneficiaries from the North East have been selected to attend a meeting in the 'Durbar Hall' of Rastrapati Bhawan. The ecstatic moment was surreal; never in our wildest dreams had we ever imagined that we would be invited to meet the President of India, in recognition of our hard work to transform rural India through PMUY implementation.

On the eventful day of 13th February, exactly at 9.30 A.M. we took our seats and after few moments the Hon'ble President of India entered the Durbar hall. As we stood in silence for the National Anthem I got goose bumps, realizing that we are in our own way the 'Bhagya Bidhata' of India, I felt very elated by the thought that though geographically distanced, we were not out of sight...out of mind. The Hon'ble President of India, in his



speech, spoke about how Indian women inhale poisonous gases while cooking food with fire wood or by using coal which exposes her to dreaded disease like lung cancer. Almost 100 PMUY beneficiaries from all over India along with 10 distributors from various oil companies were present. While interacting with the Hon'ble President of India, one of the beneficiaries said **"Everyone says that no one can buy time but I feel after getting gas connection my work gets over fast and I can easily spare the time for my family, so I feel that Ujjwala buys us time"**, her words though naïve were spoken from the heart. Here was a woman who had benefitted immensely from the PMUY scheme at the grass-root.

Our Hon'ble Prime Minister Shri Narendra Modi has taken the first step to make India smokeless and free our mothers and sisters from this misery of spending hours in smoke-filled kitchen, by introducing PMUY in 2016. Our Minister of Petroleum and Natural Gas, Shri Dharmendra Pradhan, is executing the vision of the Prime Minister throughout the length and breadth of India. During the event at Rashtrapati Bhavan, I fortunately got a chance to talk to our MOPN&G, Shri Dharmendra Pradhan. I narrated to him the episode of a poor old lady worker of a tea garden who requested me to provide Ujjwala connection, but unfortunately I could not help her because her name was not there in the economic census list of 2011. He gave me a thorough hearing and assured me that that soon he will take some positive steps for the tea-garden and ex-tea garden labourers so that they can be included under the PMUY scheme. Within 15 days, I came to know that changes in the eligibility rules were made to accommodate the tea garden and ex-tea garden labourers under the PMUY scheme. It gave me immense satisfaction

that my voice had been heard by our Minister and appropriate action was taken in such a short span. I feel elated and honoured after these incidences of recognition of the hard work we have put as true fighters in the field as IndianOil's channel partners. I believe we have contributed in the fight against centuries of misery of the rural women of India and have helped light their lives with Ujjwala. But my empowerment as a woman has just begun; we have lots of energy and zeal to take PMUY initiative to new heights, bring the change the country needs, because we, the women of India, are the 'Bhagya Vidhata'. I now realize that we are equally empowered to change the destiny of this great Nation for good.



Olee Borah
Proprietor, East Indane,
Jorhat, Assam



Light at the end of the Tunnel– Accounts from Ground Zero

Shital Pandit is 49 years but has deep wrinkles furrowing his face. They make him look at least a decade older. He is emaciated perhaps due to the burden of being the head of the family and the back-breaking farming since his childhood has also affected his health. All he got from his father was a small tract of about 1.3 *bighas* in Arambag along the periphery of Hooghly District of West Bengal. Arambag, a 3 hour drive from Kolkata, is known for its hatcheries and has been the source of egg and chicken to Kolkata. Shital used to earn a paltry sum of Rs. 4500 month through the sales proceeds from his crop. That has been his sole source of income for him and his family.

I am Rumaabala Pandit. I got married to Shital at an early age of 19 and we have had





a happy married life despite our abject poverty. Our daughter got married few years ago when she passed out of Higher Secondary with major in Arts. Our son Sukalyan, now 21, is completed his graduation from a local college. All these years, I have been cooking food on either firewood or on a coke oven. Coal was readily available in those days and was cheap too. I would find it extremely difficult to operate through the smoke that would engulf my kitchen and the whole locality every morning. Once fired up, I had no option but to complete the cooking as there was no way the fire could be put-off in between. During those days, I developed bronchitis and my lungs became weak.

One winter morning, that there was a congregation in the village. I saw people rushing to attend a meeting. Announcement had been made by the elders themselves the day before, it had to do something with cooking. With some excitement and some inhibitions, I made up my mind to attend the meeting.

I saw most of the women folk had gathered and were watching a play. A film was also shown about using cooking Gas. I heard earlier that people in cities and towns use LPG for cooking. I also knew that it is smoke free and can be instantly lit for cooking. But I had perceived that it was only for the rich and educated. At the meeting, I came to know that under the Pradhan Mantri Ujjwala Yojana (PMUY), cooking gas and stove was being offered by the Government absolutely free to poor families like us. It was just unbelievable!

I was delighted that at last I could also enjoy the luxury of cooking on a gas stove. This meant that I would not have to undergo the trauma of inhaling poisonous smoke every day. However the only stumbling block was that I also needed to have a bank account to get the LPG connection. I found out that a few women of our nearby villages had already availed PMUY LPG connection and were helped by the bank officials, to start Jan-Dhan Bank account which was also launched under Pradhan Mantri Jan-Dhan Yojana (PMJDY). Finally, my dream of owning a gas connection and cooking in a smoke free environment appeared to take shape. Inspired and assisted by the women folk in the village, I could finally get rid of the smoke filled kitchen on 8th October 2016.

Life has taken a different turn since then. I have realized that I can save up to Rs. 300 on fuel alone and what's more is that the subsidy of Rs. 227 (approximately) enters my bank account directly. My gas connection has given me a social status, health benefits and savings. I can now cook any time without the fear of weather. My husband can have his morning tea as early as 5:30 am and can leave for work on time. My medical expense has also come down considerably and I can afford to spend some time on poultry farming. PMUY may not be a big thing to the people from the cities, but for us it is a like a boon from the God himself.

Rumaabala Pandit

A PMUY beneficiary, Aramabag District
West Bengal



Pradhan Mantri Ujjwala Yojana– A Win Win Situation for the People and the Distributors

My name is Vinod Jindal and I am a Bharat Gas distributor at Muradnagar in Uttar Pradesh, catering to rural and urban customers of Ghaziabad district, Uttar Pradesh. I have a first-hand experience on how PMUY has enabled the poor women to escape from ill effects of smoke-filled kitchen resulting from burning firewood and the drudgery associated with collecting firewood on daily basis. The Ujjwala scheme has empowered the poor and marginalized households to shift to LPG by providing financial assistance and energizing the lives of millions. PMUY strikes a fine balance between the welfare of the society and at the same time also makes a lot of business sense for the Oil PSUs. However, I feel that no social scheme should be a financial burden to the society. PMUY is a unique scheme which poses no financial burden to the society; I would say it is a Win-Win situation for all.

As a Businessman, I feel that PMUY was a boon to my business growth as urban customers were gradually shifting towards PNG and thereby hitting my bottom line on Y-O-Y basis. My refill sales graph was similar to a roller coaster since 2012 as it dropped in 2013, later increased in 2014, then again declined in 2015. The introduction of the Ujjwala scheme have given us teeth to penetrate into rural markets, thereby negating the competition from PNG in urban areas. I was able to close the year 2016 with a growth in sales. Though the annual average refill of my Ujjwala beneficiaries is lower as compared to non-Ujjwala users, the gap is closing every year. In my opinion, Ujjwala is not a short term plan; it has huge potential as it has dared to explore the un-chartered territory of the rural market in a big way-what we call in management jargon as opportunities at the bottom of the pyramid. It is a seed whose fruit will be reaped in the coming years. The purchasing power of these beneficiaries will increase with a growth in the economy, thus helping the distributors to maintain their revenues in the coming years and will have a positive impact on the social, financial and physical well-being of rural woman.

PMUY makes a lot of sense, not only is it a paradigm shift towards use of cleaner fuel which will ultimately provide a clean environment to our next generation and save millions of lives, it also makes perfect financial sense, especially for small entrepreneurs like me. Hats off to the vision of our Prime Minister, Shri Narendra Modi, who has proposed not only a social scheme for the masses but also kept it financially sustainable by inculcating intricacies which will always make PMUY a winning proposition - today and tomorrow.

Vinod Jindal

Proprietor- M/s Jindal Bharatgas Service
Muradnagar- Ghaziabad – U.P.



Competition amongst Distributors– A tale of two Villages Chaprauli & Mangrauli

When I was asked to occupy the proprietor’s chair in January 2011, at my showroom in the by-lanes of village Sadarpur Noida in Uttar Pradesh, little did I know that monotonous job of procuring and distributing LPG cylinders would prove to be a humanitarian experience, by way of service to the poorest of the poor of our country. As channel partners of oil PSUs, we will be indebted to PMUY for providing us with an opportunity to be associated with an activity with a high ‘social change’ quotient. Vardaan Indane Gas, propelled by the impetus provided by PMUY, has found solace in providing new connections, after sales services and educating the village elders, women, men and the adolescents about the ease and goodness of using LPG in place of firewood in order to make the villages ‘Smokeless’. With PMUY in place, we throttled in full force, right from May 2016.

Empowered by the PMUY policy we camped in villages and left no stone unturned to find the listed beneficiaries. Our team was armed by the pertinent know-how of the scheme





and all targets were met with stubborn willingness. We got involved in procurement of Aadhaar cards, opening of bank accounts of the beneficiaries, besides educating the masses about the PMUY policy by putting up banners and posters in the distributing areas, handing out the leaflets with a crisp listing of policy and its requirements. As a result, the world started noticing us! The whole team right from the Ministry, Corporation, Channel Partners and their office staff to the last foot soldiers in the line, in form of the delivery boys, worked like a well oiled machine in executing this mammoth world-record creating movement of providing LPG connections to 8 crores families living Below Poverty Line. The enthusiasm of reaching the last rung of our society was so infectious that

each one of us got into the race of outdoing the other and a healthy competition between the us and our nearest distributor started. Other distributors were also bitten by this bug later. In this context I want to narrate a small incident. I come from a small village called Baleni in district Baghat in Uttar Pradesh. I started my LPG distributorship in January 2011 with IndianOil in Noida; my area of distribution in Noida included two villages Chaprauli & Mangrauli. Both the villages were very close to my heart as I come from a similar village. In 2016 I helped make Mangrauli a smokeless village. However just before PMUY was launched, IndianOil carried out a reorganization of my sales area to accommodate a newly appointed LPG distributor at Noida. In this reorganization, the belt comprising Chaprauli to Mangrauli villages was to be handed over to the new distributor. However I vehemently opposed this





move. My competitor, the new distributor would also not let go the villages given to him under the reorganization of the sales area. Finally the management of IndianOil succumbed to my request and gave Chaprauli to the new distributor with Mangrauli remaining as part of my operating area. Recognizing my passion, IndianOil permitted me to advocate PMUY in Chaprauli even after the reorganization.

Pradhan Mantri Ujjwala Yojana (PMUY) which was designed to ameliorate the lives of socially marginal Indian women has demonstrated a promising start by improving the equity of LPG access. PMUY households will certainly show an improvement in adopting LPG as primary fuel with time, considering its benefits. It is really a privilege to be associated with such an initiative by the Government of India.

Rachna Yadav
Proprietor- Vardaan Indane Gas
Noida, Gautam Budh Nagar



Women Empowerment- Shakti to Narishakti





The Divinity in our society of 1.2 billion people is often reflected by the number of Goddesses in our country. The Goddess of Shakti is Ma Durga and that of wisdom is Ma Saraswati. Similarly, there are hundreds of other Goddesses. Our Vedas & Puranas believed woman to be the source of power, love, affection, strength and wisdom. However, this divinity is restricted to rhetoric while the reality is quite different. The stark contrast between being worshipped as a Goddess in a temple, to cooking in smoke-filled kitchens is in reality the plight of millions of women in this country. More than seven decades of independence could not reduce the misery of our women folk, primarily in rural areas. A rich nation comprising innumerable poor has kept this country, miles away from the making it to the ranks of developed nations of the world. Millions of women are dying due to various ailments from smoke and fumes from *chullahs*. Harrowing true stories have been documented, as narrated to various stakeholders.

In May 2016, our Hon'ble Prime Minister, launched the Prime Minister Ujjwala Yojana, a movement which in matter of 3 years, would break all records. The scheme has brought about a revolution in the lives of families Below the Poverty Line by making LPG available to them. This was, perhaps, the first step towards Women Empowerment.

The plan roll out was unprecedented, the strategy executed was precise, and the results were beyond expectations. The best motivator for thousands of people involved in the implementation of this scheme was the smiles of millions of PMUY beneficiaries. The Ministry of Petroleum & Natural Gas, Oil Marketing Companies and other stakeholders worked in tandem, hand in hand with the sole purpose of breaking the shackles which had gripped poor women of this country for centuries. This section is a reflection of the thoughts of our leaders, the decision makers who have complete faith and belief in their own workforce, and are passionately espousing the cause of women empowerment.

The section highlights that PMUY is the first step taken for transition of Shakti back to its rightful place, that is in the hands of our women or Nari. The myth, that transition of Shakti to Narishakti is impossible, now stands dispelled. With the barriers broken, it is only a matter of time when Narishakti is epitomized in our everyday life.



A Transformational Scheme: From Access to Usage...

In 2015, 193 member countries of the United Nations formally adopted Sustainable Development Goals, an ambitious set of 17 Global Goals designed to end poverty, protect the planet, and ensure prosperity for all. So what do SDGs entail for clean cooking? Clean cooking is one of the significant actions which will impact 10 of the 17 SDGs and that underlines the importance being placed upon clean cooking globally.

In India, access to LPG started around 1955 and grew slowly to reach a level of 13 crore consumers in 2014, just more than half of the country's population. It largely remained in the realm of urban and semi-urban areas and remained out of the reach of rural households.

Why Ujjwala yojana?

In India, at the beginning of the current decade, a large number of households continued to use conventional cooking fuels such as firewood, cowdung, charcoal etc. Use of these fuels adversely impacts the health of women, children and the elderly due to Household Air Pollution (HAP) causing lung and heart diseases; causing environmental degradation contributing to air pollution and deforestation; drudgery of the work undertaken by women in collecting the fuel which adversely affected the socio-economic status of women in addition to its economic effect in terms of reduced earnings for the household; and loss of valuable economic opportunity through engagement of children, particularly the girl child, in these unproductive activities. Access to LPG was largely denied for the rural households on account of the urban/ semi-urban presence of the distribution network and also other factors like lack of awareness about LPG in the countryside and high initial cost of a new connection. Studies pointed out that a poor household was not able to convert to LPG due to the high upfront cost for a new connection. This amount was in the range of Rs. 4000 to Rs. 4500 per connection for a single cylinder consumer.

Various estimates of deaths in India due to household air pollution (HAP) range between 5 lakh and 10 lakh deaths annually. It was therefore felt necessary to address the access issues by starting a new initiative to promote LPG as a fuel by subsidizing the cost of a new connection for a poor household. Adoption and use of LPG would also help in addressing the issue of indoor air pollution.

Scheme Launch

In order to decisively address the problems faced by poor women due to the use of conventional fuels such as firewood, cowdung, charcoal etc for cooking, the Union



Budget 2016 announced the launch of a new Scheme with a budget provision of Rs. 8000 crore. Within a few days of this announcement (29th February 2016), the Ministry of Petroleum & Natural Gas (the Ministry hereafter) obtained the requisite approvals from the Ministry of Finance and the Union cabinet for launch of a new Scheme. The Scheme, christened Pradhan Mantri Ujjwala Yojana (PMUY or Ujjwala yojana, hereafter) was formally launched by the Hon'ble Prime Minister on 1st May 2016 to provide LPG connections to five crore poor households of the country. The Scheme was to be implemented through the field machinery of the three Oil Marketing Companies (OMCs hereafter), namely, IOCL, BPCL & HPCL. Under the Scheme, a provision was made for the Government to subsidize an amount of Rs. 1600 towards security deposit for a cylinder & pressure regulator, cost of hose pipe, consumer passbook (called DGCC in OMC parlance) and installation charges. The other elements of cost, namely, specially designed low-cost stove (without compromising on quality) and first refill, was to be borne by the beneficiary. Alternatively, a provision was made for the OMCs to provide interest free loan to such beneficiaries who cannot afford upfront payment owing to poor financial condition. This loan amount (roughly Rs. 1600 per family) was to be recovered from the subsidy received on subsequent purchase of refills.

An OMC official was nominated as DNO (district nodal officer) for each district and entrusted with the task of coordination amongst all stakeholders. The OMCs implemented the programme through their network of distributors (15000 plus at the time of start of Scheme).





Scheme Implementation

Efficiency, transparency and accountability have been the foundational basis of PMUY. The Scheme guidelines were framed to keep them as simple as possible and the beneficiary selection was to be done through 'self-selection' with any eligible household in the SECC list (more about this later) free to apply through multiple modes, eliminating involvement of middle-men and concomitant leakages/corruption. The implementation methodology was transformed with the implementing agencies going house to house to identify beneficiaries and issuing them new connections rather than the potential beneficiaries having to approach the Government agencies. A large number of 'enrolment' camps at villages organised by the OMC distributors made the process of enrolment of prospective beneficiaries hassle-free and easy.

Role of Technology – A salient feature of PMUY implementation was intensive use of technology from day one. A three stage de-duplication mechanism was operationalised to ensure that an existing connection holder does not get the benefits of PMUY by identifying existing connection in the beneficiary's or any other family members name using Aadhaar, Bank details, AHL Tin and demographic parameters. Social media platform– Twitter, Facebook, a dedicated website, toll-free number, Mobile app developed by Socialcops and web based dashboards and whatsapp groups- were operationalised to monitor the implementation. A dedicated multi-lingual toll-free number (1800 266 66 96) was operationalised to seek feedback/suggestion/register complaints. Further, a dedicated 24*7 number for attending LPG leakage related emergency through '1906' was activated. An under-appreciated aspect is the massive efforts made to ramp





up supply chain (from bottling capacity to transport to dealer location) rapidly to keep pace with the unprecedented demand in rural areas.

Regular review meetings were held with the top management and the DNOs through video conferencing at the Minister level and at my level. The Minister's personal involvement in all initiatives, like the review meetings, distribution camps, etc. was a great morale booster for the field officers, in particular. Field visits by senior officials of the Ministry and the OMCs were organized to each district for a direct on-the-spot assessment of the Scheme. Performing DNOs were also recognized by the Ministry and the OMCs during periodic review meetings. Large number of 'safety -clinics' were conducted across the country to educate the new consumers about safe usage and benefits of LPG. Active participation of elected representatives, distinguished local personalities and local administration ensured transparency and accountability coupled with the drive to make adoption process of LPG a 'movement'.

Beneficiary lists

When the Scheme was started, it was decided that poor would be identified on the basis of the Socio Economic Caste Census (SECC)-2011, a database prepared by the State Governments and district administrations under the guidance and directions of the Ministry of Rural Development and Ministry of Urban Development. All households with at least one deprivation under the SECC-2011 were deemed to be eligible. However, during extensive field work, it was felt that SECC-2011 had exclusion errors and many deserving poor were left out of the SECC. The Government decided in March 2018 to address the exclusion errors by identifying the following categories under the Scheme :- (i) All SC/STs households; (ii) beneficiaries of Pradhan Mantri Awas Yojana (PMAY) (Gramin); (iii) Antyoday Anna Yojana ration card holders; (iv) Forest dwellers; (v) Most Backward Classes (MBC); (vi) Tea & Ex-Tea Garden Tribes; (vii) People residing in Islands and river islands. These categories were identified through wide stakeholder consultations and it was felt that families belong to these categories would be generally poor and unable to afford the cost of a connection. While the Scheme implementation moved smoothly ahead as a result of these additions, it was noticed during village level intensive campaigns (Gram Swaraj Abhiyan) that even this addition was not enough and some poor were still left out of the PMUY in most villages. It was felt that universalization is not achievable without addressing this unintended gap in Scheme guidelines. Accordingly, the scope of the Scheme was further expanded in December 2018 to include all poor households who are without access to LPG and who furnish a 14 point declaration about ownership of economic assets (a safeguard against non-poor accessing benefits of PMUY).

Where are we now?

As of 1st February 2019, more than 6.30 crore connections have been issued under the



PMUY by OMCs. As mentioned earlier, the Scheme was launched with an ambitious target of 5 crore new connections. This target was envisaged to be achieved in three years, that is, by 31st March 2019. But we crossed the 5 crore mark on 2nd August 2018, almost eight months ahead of schedule. The Scheme crossed another milestone, the 6 crore mark, on 2nd January 2019 as a result of the sustained effort of all implementing agencies, the distributors and their staff and the OMC officials DNO upwards.

Another feather in the cap of LPG team was the swift growth in access to LPG which crossed 90% of the household recently. During a period of more than 54 months from May 2014 till December 2018, more than 12 crore new consumers have joined the LPG family. This is unprecedented considering the fact that there were only 13 crore consumers in April 2014. The teams are working hard to achieve to reach maximum number of households quickly, which will lead to an overall increase of 13 crore new consumers by March 2019 – thus meeting the nearly impossible aspirational goal of 13 crore connections in five years the same as the number achieved in nearly 60 years of LPG movement. Many international organizations, notably IEA and WHO, have appreciated the stellar work done by Indian Government and the Ministry to enhance access to LPG in the last 4-5 years. Several Asian and African nations have evinced interest in emulating this model in their country.

Refills and Usage of LPG

In the past few months, a narrative has sought to be built around Ujjwala Yojana, namely, the consumers have got a LPG cylinder but they are not using it. The Scheme is not getting any refills.

This is an interesting development from our perspective. As has been repeatedly mentioned in the paragraphs above, the PMUY was launched with an objective to facilitate 'access' to LPG for a poor household. The Scheme addressed it by subsidizing upfront cost which has led to a dramatic increase in LPG access. The focus on 'refills' or 'usage' is a paradigm shift but we are not wishing away this challenge.

First, to set the facts straight. A recent analysis shows that approximately, 75.4% consumers have taken their first LPG refill in the very first year of issuance of connection which clearly shows the acceptability and cultural shift in the usage of LPG. Many of these consumers have taken 5 or more cylinders since inception, which signify usage of LPG as primary cooking fuel. But refills are an issue for some poor households which we are trying to address through 5 kg refills (for addressing the affordability issue) and by setting up points of delivery nearer to the villages (for addressing the accessibility issue). The 5 kg option enables the PMUY beneficiaries to swap a standard 14.2 kg cylinder with a 5 kg refill. Complete conversion to LPG as a cooking fuel also has socio-economic and behavioural dimensions. Some alternative fuels like cow dung, firewood may be completely free of cost for a rural household. It will take some time for a family to appreciate that what seems to be free has other costs like health impact, time lost, which



could have been used for productive livelihood. We have now carried out thousands of LPG Panchayats to encourage women to further increase use of LPG.

In Conclusion

A journalist friend who is settled in Delhi now for almost three decades mentioned to me during an interaction recently that he visits his village in North Bihar at least once every year. Firmly etched in his memory is the presence of dense cover of smoke in the skies during the late afternoon and evening hours and, for the first time this year, he saw clear skies in the evening.

For all the skeptics of Ujjwala Yojana and its efforts to provide universal access to LPG, there could not be a better reply.

Ashutosh Jindal

[The author is a Joint Secretary in the Ministry of Petroleum and Natural Gas, who was involved in the Scheme implementation right from its conceptualization and rollout. He has been working in this assignment for four years now]



Pradhan Mantri Ujjwala Yojana (PMUY): Transforming lives of women in India

Energy is the key driver of economic growth. India has emerged as one of the World's leading economies on the back of robust growth aided by government policies aimed at economic development and maximising welfare of people.

Government of India has been at the forefront of promoting women empowerment as the engine of economic growth and has introduced path breaking initiatives. The paradigm shift has been from women's development to women led development. As it is said:

"A strong woman stands up for herself. A stronger woman stands up for everyone else."

A key initiative by Ministry of Petroleum & Natural Gas to empower women and improve access to safe, reliable, affordable, and efficient modern energy has been the Pradhan





Mantri Ujjwala Yojana (PMUY), an innovative program for providing LPG – a clean cooking fuel to women belonging to poor households.

This initiative was taken forward by the Oil Marketing Companies (OMCs) in 'Mission Mode' and in a dedicated, focused approach for smooth, effective & timely implementation. Most of such schemes get derailed after promising start only because the drivers of the scheme remain far from the ground zero, but not Ujjwala. As the scheme was completing one year of its implementation, all the members of the top management team fanned out in the rural areas of the country and visited the actual beneficiaries at their respective dwellings. I also had an opportunity to visit six Ujjwala beneficiaries in April 2017 in a remote village Kharhar in Pratapgarh District of Uttar Pradesh. It was a humbling experience to interact with the beneficiaries who expressed immense satisfaction in owning a gas connection and a sense of gratitude to the Govt. for providing them with something they thought as a pie-in-the-sky earlier.

Providing LPG connection under PMUY has given a new lease of life to women in rural areas. Apart from solving the health issues, it has given them spare time, which can be put to better use for other activities to bring a change in the life of the household members or generate additional income. The houses look cleaner and space availability has improved due to substitution of unorganized biomass fuel by LPG cylinder.

Since the launch of PMUY, the reach of scheme has been significantly increased by expanding the beneficiary base. PMUY now covers adult women in all poor families.

It was due to the missionary zeal of all the stakeholders involved in implementing the PMUY that the Oil Industry was able to surpass the initial target of 50 million connections in just 15 months. It was a proud moment for the Oil Industry when the Honourable Vice President of India gave away the 60 Millionth Ujjwala connection in an official ceremony in New Delhi on 2nd January, 2019.

To improve safety awareness of the beneficiaries, LPG Panchayats are being organized by the OMCs regularly.

India's LPG consumption has grown with over 8% of CAGR during last 5 years to reach about 23 MMT in 2017-18. Demand for clean cooking energy needs to be coupled with sustainable and consistent supply of the products at reasonable cost. The challenges of bringing clean cooking fuel to millions of households is being handled on top priority by OMCs by developing LPG import facilities, Pipelines, LPG bottling plants and appointment of new distributors. About half of the demand for LPG in 2017-18 was met through LPG imports. With rising demand, development of import facilities at various locations in the country is being taken up in real earnest.

PMUY is a visionary and revolutionary program by Government of India. The scheme has emerged as a quintessential policy instrument to achieve the twin objectives of energy affordability and energy access which are critical to the vision of a sustainable energy



future for the country.

Significant increase of all India LPG penetration from 62% to about 90% since the inception of PMUY is testimony to effectiveness of the Govt. of India's Clean Energy initiative. PMUY has also been the driving force for the decline of traditional/ non-commercial Biomass's share in India's energy mix by about 2% during last 3 years. In addition, Kerosene consumption in India has also decreased by 44% during last 2 years, primarily due to PMUY implementation. 5 States and 3 Union Territories have been declared Kerosene Free.



PMUY has received global recognition from the World Health Organization hailing it as decisive intervention by the Govt. to facilitate the switch to clean household energy use, thereby addressing the problems associated with Indoor Household Pollution.

HPCL is diligent in its responsibility to the nation and society. As a responsible Corporate, HPCL believes that business and society are interdependent and hence endeavours to create a sustainable business model that captures economic, social and environmental value for stakeholders. More and more people will need clean gas in their kitchens to cook food. Through the strengths of reach owing to its wide spread infrastructure, large customer base, vast experience and market knowledge, HPCL is well positioned to meet the energy needs of the citizens and of a nation which is undergoing transformation with unprecedented growth and development.

The sustained effort in the clean cooking energy space as envisaged through the PMUY has the potential to transform the lives of rural and semi urban households by ensuring affordable, reliable, safe and efficient modern energy for all citizens of the nation. HPCL is privileged and honoured to contribute to the economic growth and wellbeing of the nation's people.

M. K. Surana
Chairman & Managing Director, HPCL



Yatra Naaryastu Puujyante– The Saga of Women Empowerment

It was with great interest and a sense of satisfaction, that I read about the story of Ranju Devi of Haripur village, Alauli block, of the Khagaria district in Bihar on the news website LIVE MINT, two years ago. PMUY was in its inception at that time. Ranju Devi, a talented tailor, hardly had any time to devote to tailoring. She also suffered from respiratory problems due to the usage of firewood. Ranju Devi lived with her husband, a carpenter, and their two children. The family has no cattle or farmland and she found it difficult to even educate her children. She took a cooking gas connection under the Pradhan Mantri Ujjwala Yojana (PMUY) in June 2016. Her financial standing has improved and so has her health. She has done away with her old chullah, replacing it with a stove. She finds more time for her tailoring now and has helped her to earn independently. This is one among the 6 crore of such heart-warming stories coming from the so far neglected Indian heartland. A silent revolution is unfolding before our eyes.

Thus spoke Maharishi Manu :

*“Yatra Naryasthu Puujyante
Ramante Tatra Devatham
yatraitaastu na puujyante
sarvaastatrafalaah kriyaah.”*

Where Women are honoured there blossoms divinity and where women are dishonoured, all actions, however noble, will remain unfruitful.

A happy home can begin only with a happy kitchen. A nation where our mothers and sisters are happy, healthy, and safe can only progress. A Nation's greatness is measured by how it treats its weakest members, said Mahatma Gandhi. India is a rich country of innumerable poor people. I can proudly say that the PMUY is a scheme that follows Gandhiji's advice in its letter and spirit.

PMUY is the world's largest poverty alleviation scheme, born from the vision of our Hon'ble Prime Minister, Shri Narendra Modi, to ensure an all-round inclusive progress. It is much more than mere poverty alleviation. It is about empowerment, about dignity, about self-respect. In front of our eyes, a silent revolution is blooming. The increased use of LPG will reduce health disorders of our mothers and sisters who were exposed to conventional and polluting cooking fuels such as wood and cow dung. Woman empowerment is something close to the heart of our beloved Prime minister. The Prime Minister Ujjwala



Yojana is a revolutionary step in women empowerment that has bettered the lives of 6 crore families who have been provided with the LPG connection.

Universal PMUY now covers release of LPG connections to all poor households, with a revised target of 8 crore. The initial target of 5 crore connections was achieved well before the target i.e. 31st March 2019 and now we have reached 6 crore connection.

Implementation of PMUY has resulted in significant increase in national LPG coverage, in general and eastern states, in particular. The scheme has resulted in mass coverage of rural poor households and 48% of the beneficiaries are SC/STs. It has led to improved national LPG coverage from a mere 55% in 2014 to almost 90% today.

This colossal task was impossible without the dedication and commitment of each member of Team LPG. I must acknowledge with gratitude the support, encouragement, guidance and encouragement that we received at every step of the way from Shri Dharmendra Pradhan, our Hon'ble Minister for Petroleum & Natural gas and Skill Development & Entrepreneurship. Without his support to smoothen obstacles, we would perhaps not have been able to achieve this much in such little time. The highest echelons - the President & PMO Office, and Hon'ble Minister himself, have acknowledged the fact that our District Nodal Officers who acted as frontline soldiers, and our officers at each level, stakeholders in LPG business have been instrumental in the successful implementation of scheme. To IndianOil, Ujjwala is not a Scheme. It is our passion, our dream and our commitment to a progressive and inclusive India.

'Tamasoma Jyotirgamaya', proclaimed the Pavamana Mantra of Brihadaranyako Upanishad. Let Ujjwala light a billion lives. Let the light dispel the darkness. This commendable achievement is just the beginning. We have miles to go before we sleep. The ambition of the greatest men of our generation has been to wipe every tear from every eye. That may be beyond us, but so long as there are tears and suffering, our work will not be over. It is when we implement the last mile projects like PMUY that go beyond the duty of a commercial enterprise and step into the *Dharma* of a true public sector enterprise.

Gurmeet Singh
Director (Marketing), Indian Oil Corporation Ltd.



Pradhan Mantri Ujjwala Yojana– Shakti to Narishakti

**“Satisfaction lies in the effort, not in the attainment; full effort is full victory”-
Mahatma Gandhi**

These immortal lines by Mahatma Gandhi perfectly summarize the hard work, detailed planning and the timely execution of the Pradhan Mantri Ujjwala Yojana by the public sector oil marketing companies. It has taken the country today to the proud pinnacle of over 6.16 Crores BPL / disadvantaged families experiencing the convenience of the healthy cooking fuel - LPG and attaining freedom from the smoke and health hazards of firewood and biomass fuels.

The Pradhan Mantri Ujjwala Yojana (PMUY) was launched on the 1st of May, 2016 at Ballia, UP, by our Hon'ble Prime Minister, who gave a strong impetus to the programme with the words **“This measure (PMUY) will empower women and protect their health. It will reduce drudgery and the time spent on cooking. It will also provide employment for rural youth in the supply chain of cooking gas.”** The PMUY programme envisaged 5 Crore LPG connections to be provided to BPL families spread across urban and rural population with a support of Rs.1600 per connection over the next 3 years.

The Hon'ble Minister for Petroleum and Natural Gas, Shri Dharmendra Pradhan personally tasked the OMCs and their LPG Distributor network to develop and diligently execute the plan to reach the PMUY connections to the needy and disadvantaged consumers in a time-bound manner. In his trademark style, Shri Pradhan continuously interacted with the OMCs, LPG Distributors, target group representatives and other stake holders, to ensure that the programme proceeded apace, aided by numerous performance reviews at various levels and forums.

The challenge was indeed formidable, with two thirds of non-urban households hitherto relying on firewood and other biomass for cooking.

The programme is based on the conviction that the disadvantaged sections of society need a small helping hand to rise to a much better position. The PMUY programme's simplicity is its primary construct of quick allotment of the LPG connection to the lady of the house, through easy documentation and a financial package in which the initial financial outgo was converted into easier to manage smaller installment payments, adjusted in the future refill purchases. In fact, it reinforces the vision of Shakti to Narishakti.

Critical elements in the strategy were rapid development of LPG bottling capacities hand-in-hand with significantly larger procurement of LPG cylinders and pressure regulators, bulk LPG input logistics complemented by the intricate logistics which went into placing



the filled LPG cylinder, pressure regulator, BIS standard rubber tube and hotplate in the kitchen of the beneficiary. This was in tandem with the imparting training to the beneficiary and her family members on the safe practices for using the connection; critical for incident-free usage as most of them were first-time users

PMUY beneficiaries were identified through Socio-Economic Caste Census List-2011 and in such cases where names were not covered in the SECC list, beneficiaries were identified from seven categories which included SC/ST households, beneficiaries of PMAY(Gramin), Antyodaya Anna Yojana, Most Backward Classes, Forest Dwellers, Resident of Islands/River Islands and Tea Garden and Ex-tea Garden Tribes. The programme coverage

has been extended to all the poor citizens of India with effect from December 2018.

While in the last 60 years, 13 crore domestic LPG connections were issued, PMUY achieved a target of 5 crore LPG connections in just over two years. A thumping success considering the short time span, it has encouraged the Government to raise the target to 8 crores recently.

The country's highest constitutional functionaries participated in the PMUY milestone achievement programmes. On 15th July 2017, the then Hon'ble President of India, Shri Pranab Mukherjee handed over a LPG connection to a beneficiary at a grand function held at Jangipur, West Bengal, in the presence of (the then) Hon'ble Minister of State (I/C) for Petroleum and Natural Gas, Shri Dharmendra Pradhan, marking the completion of release of 2.5 crore LPG connections to women beneficiaries from below poverty line (BPL) households across the country under the PMUY. Subsequently, Hon'ble Vice President Shri M. Venkaiah Naidu, on 2nd January 2019, handed over a LPG connection to a beneficiary residing at Delhi to mark the release of over 6 crore connections under Pradhan Mantri Ujjwala Yojana in the presence of Shri Dharmendra Pradhan .

At HPCL, a swiftly designed action plan was rolled out after the scheme was launched.



The LPG Regional Offices, Field Officers, Information System department and the Distributor network launched vigorously into the programme. The senior management followed a hands-on approach and closely monitored the day-to-day progress.

Around 1200 LPG Distributors were added after the launch of PMUY, including Durgam Kshetriya Vitrak segment distributors, for catering to the hitherto unserved/under-served areas. HPCL network strength thereby rose to 5568 LPG distributor, an increase of 30% approximately during the period.

A valuable experience for me was meeting many of the PMUY beneficiaries at their villages. For instance, in April 2017, I visited Mirzapur Mafi village, in Faizabad district, UP. The beneficiary was a traditional lady who was customarily reticent initially. She gradually opened up and delightedly told us how the LPG installation had helped remove the dried cow dung cakes from her wall leading to a clean, smokeless life.

Many villagers, mostly women, praised the scheme but some felt left out as they could not benefit from the programme due to their names not appearing in the SECC list.

A similar feedback was received from other parts of the country. The programme has been recently modified by the government to address this aspect and now the scheme has been extended to cover all poor people in the country.

For ensuring incident-free usage for the mostly first-time users, the new concept of Pradhan Mantri LPG Panchayat (PMPL) was developed. The PMPL, in addition to guiding the Ujjwala beneficiaries on the safe use of LPG, also disseminated knowledge and awareness of the other government programmes which are available for them, so that they can obtain the benefit of these welfare schemes.

A significant development was the Ujjwala Divas celebration on the 20th of April, 2018 across the country, during which 15,000 PMPLs were organized as part of the programme. Women beneficiaries enthusiastically announced how they overcame the fear of LPG usage, leading to a better life all round. Shakti to Nari Shakti symbolized.

The Government of India and the OMCs are working in tandem to solve the issue of one-time cost of a 14.2 Kg LPG refill. While education of the masses is a continuous activity, schemes like deferment of subsidy, swapping of 14.2kg cylinders with 5kg, etc. will ensure continuous use of LPG in poor rural households.

The Ministry of Petroleum and Natural Gas, OMCs and the LPG distributor brethren have achieved something which was unimaginable three years back. The Ujjwala programme is gaining further strength and the day is not far when India will be celebrating the 70th million Ujjwala Connections, fulfilling the vision of Shakti to Narishakti.

S. Jeyakrishnan
Director (Marketing), HPCL



Respect and empowerment of women– Ujjwala made it happen

Lata Devi, 66 years old, is a mother of two daughters and three sons. She stays in a kaccha hut in a small village near Angul in Odisha. Aged beyond her years, she suffers from respiratory disorders. She complains of pain from the sores in her joints. Medication is not working. What could be the reason for her ailment? Is it the lack of cleanliness and sanitation?

Her day starts with cooking food and ends with cooking. Every day, she lights wood in a *Chullah* (an earthen hearth) to cook food for herself and her ailing husband. 40 years of inhaling soot and smoke generated from the chullah has played havoc with her lungs and the overall health of her family.

Lata Devi is just one among the 142 million rural households; a whopping 85% of total Indian rural households who burnt solid fuels like wood, cow dung or crop waste, for cooking till 2016. Chullahs when lit, emits dangerous substances causing severe indoor pollution. Indoor air pollution is now the second biggest killer in India after high blood pressure.

According to the 2010 Global Burden of Disease Study, two persons die prematurely every minute in India due to indoor pollution.

In rural India, cooking is mostly done by the women of who hold the households together by grit, sacrifice and inner strength.

Pradhan Mantri Ujjwala Yojana is Shakti to Narishakti. No longer will the daughters and daughter-in laws of the Lata Devis spread across the nation have to go to the forest to get wood-stock, nor will they have to spend hours on cooking. Time could be put to better use. Her daughters have started working from home and earning money. Indoor air pollution and health hazards have been replaced by faces lit up with joy. LPG connections, an environment-friendly option, received by the BPL families have transformed their lives, their faces are lit up in joy at the prospect of smokeless kitchens as well as cleaner homes and they are showering blessings on the Prime Minister of the country for conceiving such a scheme.

The Pradhan Mantri Ujjwala Yojana (PMUY), launched by the Hon'ble Prime Minister Shri Narendra Modi on May 1st, 2016 turned out to be an inflexion point in the history of LPG accessibility in India. The initial target of 5 Cr. LPG connections set by the Govt. of India was achieved by the Oil Marketing Cos. (OMCs) in August 2018, in just over two years, which in itself is a testimony to the success of the scheme.



While PMUY provides clean cooking gas advantage to the entire family, there is an underlying aim to empower the women of the country who run the household. The scheme envisages providing LPG, with the woman of the house being the direct beneficiary. The subsidy amount goes to her bank account. Her financial inclusion and respect is a core value of the scheme –Shakti to Narishakti.

PMUY has catapulted India to the position of the second largest user of LPG, surpassing China and Japan and only behind USA. The LPG penetration in the country increased from 62% on 1st May, 2016 (the day PMUY was launched) to 90% as of 1st December, 2019. The consumer holding increased from 200 million in May, 2016 to 250 million in Nov, 2018. The number of distributorships increased from 17,936 to 22,328 in last two years.

This is phenomenal and could not have been achieved without humungous efforts at all levels. Ministry of Petroleum & Natural Gas guided the OMCs and aided them in





removing various policy hurdles. Hon'ble Minister of Petroleum & Natural Gas and Skill Development & Entrepreneurship, Shri Dharmendra Pradhan led from the front and interacted extensively with OMC officials, district officials and the beneficiaries. His hands-on knowledge and experience has been a boon to all concerned, not just the beneficiaries.

PMUY is not a stand-alone activity as it has a massive ripple effect on job creation and 'Make in India'. OMCs have put up new plants and augmented the capacity of the existing plants to meet the market demand of LPG. With more plants and bottling facilities, more trucks have been inducted. Addition of nearly 4,400 distributors and increase of manpower in existing distributorships has given employment to about hundred thousand people. Many self-help groups have been pressed into service to impart training to the beneficiaries. To take care of the increasing demand of cylinders, regulators, valves, etc., at least 70 manufacturing units have been set up with the hand-holding from the OMCs.

In any change process, an individual goes through a series of 5 stages, viz, pre-contemplation, contemplation, preparation, action, and maintenance. While the Govt of India and the OMCs have cut short the first four stages by offering LPG Connection at NIL upfront cost (in case the beneficiary opts for interest free loan) the Ujjwala customers are going through the fifth stage of 'maintenance', i.e. to continue using LPG as cooking fuel of choice. And to help them cope up with this stage, the Ministry of Petroleum & Natural Gas and the OMCs have initiated the option of 5 Kg refill (@ less than Rs. 200/-at present) to the Ujjwala customers. New Ujjwala customers are being given option for taking two 5 kg cylinders instead of one 14.2 kg cylinder.

Pradhan Mantri LPG Panchayats (PMPL) is being conducted in rural areas to provide a platform to all the stakeholders to come together and share their experiences of using LPG. Here, not only the cost benefit analysis is presented to the hesitant users, but they are also made aware of the value of the time saved by using LPG. PMPL serves as a refresher course for all the customers, in which all the safety precautions, Do's and Don'ts are explained once again to ensure the safe use of LPG.

We are sure that with the above measures, the Ujjwala beneficiaries will smoothly pass through the fifth stage of change and the vast expanse of rural India will soon become truly SMOKELESS as envisioned by the Hon'ble Prime Minister of India; an ode to the vision of Shakti to Narishakti

It is my proud privilege to be closely associated with a scheme like PMUY, which transcends the normal business of the Oil Companies by transforming the lives of the citizens.

Rakesh Misri
Executive Director (LPG)
HPCL



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and continuing...



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