



POWERED

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 **dharma life**
RISING TOGETHER



Insights on Engaging Rural Women in Energy Value Chain



Executive Summary

Problem & Background

Lack of Last Mile Delivery Networks -

68.9% of India's population lives in rural areas.¹ Even in 2050, more than half of India's population will be rural. Rural Indian villages do not have access to developed last mile delivery networks for products, especially cause-based products due absence of conventional retail channels. Some of the challenges include high travel time and costs, limited relevant choice of products on offer as well as lack of after sales services.² Large geographies with widely dispersed populations and nonexistent transportation infrastructure increases the cost of distribution & after-sales service. Because of this, low income households do not have awareness of or access to products that will help them improve their quality of life by overcoming developmental challenges. To add to this, there is no ready access to skilled individuals who can act as marketing, sales, management/technical agents, especially in remote areas.

Lack of Opportunities for Rural Women -

The Labour Force participation rate for women is one of the lowest in the world. Despite educational gains, the labour force participation rate for women in 2017 was 28.5% (compared to 82% for men),³ and where they are employed, it is often in low-skilled, low-productivity and low or unpaid jobs with long working hours, poor working conditions and limited social protection. Almost 20 million women had dropped out of the workforce between 2005 and 2012⁴. Increasing women's labour force participation by 10 percentage points could add \$700 billion to India's GDP by 2025 (or a 1.4% increase). Rural job opportunities have been decreasing and not enough rural women have been able to make the transition to working in urban areas. Including women in the workforce trans-

1. <http://statisticstimes.com/demographics/population-of-india.php>

2. C.K. Prahalad, *Fortune at the Bottom of the Pyramid* (New Jersey: Pearson Publishing, 2005), [https://www.ey.com/Publication/vwLUAssets/ey-rural-e-commerce-the-untapped-potential/\\$FILE/ey-rural-ecommerce-the-untapped-potential.pdf](https://www.ey.com/Publication/vwLUAssets/ey-rural-e-commerce-the-untapped-potential/$FILE/ey-rural-ecommerce-the-untapped-potential.pdf)

3. <https://www.catalyst.org/research/women-in-the-workforce-india/>

4. <https://www.worldbank.org/en/news/speech/2018/03/17/women-in-dias-economic-growth>

lates to gender empowerment, giving them a voice and a sense of identity.

Lack of Access to Energy -

Further, more than 25% of India's population, the vast majority of whom live in rural low-resource settings, still lack an electricity connection (Bannerjee, Barnes, Singh, Mayer, & Samad, 2015), and lack access to off-grid clean energy solutions that could potentially improve their standards of living. Lack of access to adequate grid electricity as the main source of lighting also disproportionately affects women. The lack of efficient energy connections places increased burdens on women's time by adding to their household responsibilities, which in turn reduces their opportunities to earn income. Women are also more exposed to health risks from kerosene oil and other fuel-based lighting sources.⁵

Dharma Life – Background

Dharma Life works on creating rural women entrepreneurs in India who create a livelihood for themselves as social changemakers working on sustainable development goals in their own village community. Rural women are identified, selected and trained to become social change makers in their village by addressing the issues of awareness, accessibility and affordability for social impact products as well as services. The organization is committed to building sustainable and scalable rural entrepreneurship model, resulting in greater income generation for entrepreneurs and leading to further improve the quality of life for rural women through better awareness and training support in village communities. At the core of the model is a vision to create women entrepreneurs to achieve gender and women empowerment outcomes and leveraging them to address pressing development challenges – SDG 3 (Good Health & well-being), SDG 5 (Gender Equality) and SDG 7 (Affordable and Clean Energy) through their enterprise.

5. Deloitte (2015). "Women, Energy and Economic Empowerment." Available at: <http://www.theatlantic.com/sponsored/deloitte-shifts/women-energy-and-economic-empowerment/261/>

Dharma Life is committed to building sustainable and scalable rural entrepreneurship, creating a robust demand and supply of socially impactful products, livelihood creation, multi-product distribution, awareness generation via entrepreneur model. Our current scope of work includes

Entrepreneur Development –

We enable underprivileged women to become respected change agents in their communities in rural India. These change agents introduce their communities to carefully screened, socially impactful products and services, while creating a livelihood for themselves. Dharma Life strives not only to create financial sustainability for the entrepreneur but also to instill a level of empowerment and spark the entrepreneurial spirit of the individual through world-class training programs. **These DLEs would through the development programme build their confidence, gain respect in their community, earn financial income as well as empower other women in their villages both through social impact products and services (energy access, clean cooking, menstrual hygiene, etc).**

Last mile social impact:

We have created a basket of solutions, which address the needs of our customers in the most effective way to improve their quality of life. Our entrepreneurs provide education on issues and need for behaviour change through campaigns at a village level, training on product usage and after-sales support. The entrepreneurs run and support innovative behaviour change campaigns and awareness activities with the aim of changing mindsets and promoting better practices within their communities.

Data Collection and Feedback ecosystem:

Significant investments have been made in setting up a best-in-class entrepreneur development and support network. For example, we have implemented an SAP ERP system and mobile app-based tracking system to measure outcomes and constantly drive improvement in our key processes.

With over 16,000 Dharma Life Entrepreneurs currently operating across 13 states (more than 12,000 of which are women), we have impacted more than 10 million beneficiaries.

We have been able to sustain our operations since 2009 through product and cause diversifications, tech enablement and nurturing diverse partnerships. We believe that by scaling this approach we can create one of the largest women entrepreneur networks driving social change in India while changing gender norms and creating improving livelihood opportunities in rural India. Success would mean the creation of 100,000 female Dharma Life entrepreneurs (DLEs) over the course of 5 years.

POWERED Project – Core Concept and Objectives

In view of these challenges and opportunities stated above, Dharma Life with support from Shell Foundation and DFID (The Department for International Development) worked in this direction as a part of POWERED Project with the objective of scaling up the distribution of energy related products and services in rural India with women as a core part of the value chain.

Aim of the POWERED project was Creating jobs for rural women through Dharma Life Entrepreneur (DLE) Model in the energy value chain as sales agents, behavior change agents, distributors, market insights teams. This funding was aimed to deliver the impact goals of the program, where in Dharma Life will scale up its women entrepreneurship model in across states and expand its reach to remote districts and villages in these states.

We believed providing affordable, reliable, modern energy to women can provide a disproportionate positive impact to the lives of their families. Women around the world invest 90% of their income back into their families and communities, which translates into greater access to nutritious foods, education, healthcare and increased economic activities. Modern energy products provide women with the opportunity to save between 30-50% of their income, reduces the time they spend collecting/ traveling to purchase fuel and improve financial inclusion, thus impacting their overall quality of life.

What we Achieved

As a part of **POWERED Project**, Dharma Life has achieved the following objectives in Phase I and Phase II:

- Dharma Life successfully managed to select, train and onboard 3000 women entrepreneurs in the energy value chain across 8 states; Dharma Life provided training through focused and certified programs - TEJASWANI and SWACHH URJA. We scaled up to diverse and challenging geographies to ensure access to clean energy solutions at the remote rural locations too.
- Ensured delivery of social impact products such as clean cooking solutions, solar lighting equipment, and other products at the last mile; This was accompanied with continuous customer interaction; awareness generation activities and innovative behavior change campaigns to create awareness and drive behavior change at the last mile
- The solution designed by Dharma Life included the provision of a start-up kit to each of the 3000 POWERED Dharma Life Entrepreneurs (DLEs). This included the following items:
 - Demo Kit – Product samples of the core categories: solar lighting, clean cooking and menstrual hygiene.
 - Inventory Advance – Initial stock for sales.
 - All entrepreneurs had to co-invest around 30% of the cost of this basket in the form of an upfront payment.
- As a part of the programme, Dharma Life leveraged co funding from 2 private sector partners in Phase I and 5 additional partners in phase II (more than \$1m) to support layering activities; Leveraging various partnerships helped women not only earn an income through product sale but also by conducting behavior change activities enhancing incomes by 20-30%.
- Dharma Life initiated a pilot to test consumer financing for social impact products (such as induction cooktops) among its consumer base. The primary objective of this model is to encourage adoption of

social impact products, through access to easy credit facilities by consumers owing to the high upfront cost of clean cooking products. We tested the model with 20 DLEs in UP and then scaled it up to 230 more DLEs across UP, Uttarakhand and Jharkhand. The potential customers are selected using a screening tool jointly developed with LBS and LSE professors based on psychometric testing, alternative KYC and social referencing, to enable data-driven responsible financing at scale.

Purpose of the Learning Report

Inclusion of women in the energy value chain from energy product distribution, sales, market research insights, behaviour change need significant engagement at the village level and have a catalytic impact in the community.

Dharma Life has documented its learnings and challenges to support engagement of women in energy value chain across geographies and sectors for a more holistic impact. We feel various learnings listed here can go a long way in helping scale up this approach and reach a larger section of the rural population.

Various learnings from POWERED intervention especially around provision of start up capital to DLEs and scaling up Dharma Life's consumer financing model will go a long way in helping Dharma Life design its strategy to realize its vision of **'Building a network of 100,000 women leaders who help deliver comprehensive solutions to help India meet key UN Sustainable Development Goals, accelerated by technology, innovation and collaborations'**.

Acknowledgement

We would like to thank Shell Foundation and Department for International Development, UK (DFID) for the opportunity to partner with them under the aegis of POWERED Project with the objective of including women in the energy value chain, especially at the bottom of the pyramid. We thank them not only for the financial support to help Dharma Life scale up our female focused rural entrepreneurship model, but also for their consistent guidance and support. We also extend our gratitude towards Heidi Hafes and Tanya Kothari from Shell Foundation and Adritha Subbiah from DFID India for their consistent support and guidance for their consistent support and guidance.

We would also like to thank International Finance Corporation (IFC) for their support in helping Dharma Life develop the screening process and training content used for training its entrepreneurs and in addition, supporting Dharma Life implement clean-energy based consumer awareness campaigns on ground. We would also like to thank GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) for helping Dharma Life implement the first phase of Consumer Credit model, learnings of the same were used for scaling up the approach across a larger group. Further, we would like to thank GIZ and IFC for their support in reviewing the Learnings Document and providing their valuable inputs for the same.

Dharma Life would also like to appreciate the efforts of Professor Rajesh Chandy and Iris Steenkamp of the London Business School and Professor Om Narasimhan of the London School of Economics for their invaluable support throughout the duration of the project, and particularly as we developed the Results based Financing Framework as we go forward.

Report Compilation

Under the able guidance of Gaurav Mehta, Rajeev Ranjan and Deepak Saksena, Dharma Life team comprising of Nandita Mathur, Seeram Chandu, Shinjini Shrivastava and Suryansh Nagar have successfully compiled this report.

Lesson 1: Providing start-up kits to women entrepreneurs enhances sales performance by up to 90%

One of the goals of the POWERED programme was to create jobs for rural women in the energy value chain through the Dharma Life Entrepreneur (DLE) Model. The Dharma Life Entrepreneur is expected to act as a sales agent who apart from selling clean energy products, drives behavior change amongst last mile rural consumers and gets market insights from them.



The Problem

In the rural Indian context, **awareness about, access to and availability of good quality durable items such as clean cooking products and clean energy lighting solutions is limited.** Most households are not even aware of the existence of such products and/or their benefits. This situation is further complicated by the fact that products are usually too expensive for households in rural India. Dharma Life Entrepreneurs (DLEs) face this issue while promoting adoption and use of these products at the last mile. Having the product in hand, in the form of a demo kit helps the entrepreneur **show rather than tell** their potential customers about the functionality and the benefits of the products, which is a much more effective technique. Since these first-time entrepreneurs haven't experienced the products first hand themselves, their conviction and confidence to create awareness and convince other women in the community is also limited. Also, most of these

female entrepreneurs are unable to invest the initial capital required for product procurement leading to **low leads to sale conversion.**

Our Approach

The solution designed by Dharma Life included the provision of a start-up kit to each of the 3000 POWERED Dharma Life Entrepreneurs (DLEs). The kit worth INR 3500-4500 (approx.) that consisted of product samples and initial stock for sales was handed over to the DLEs post training. The kit included the following items:

- Demo Kit – Product samples of the core categories: solar lighting, clean cooking and menstrual hygiene.
- Inventory Advance – Initial stock for sales.
- All entrepreneurs had to co-invest around 30% of the cost of this basket in the form of an upfront payment.



Lessons Learnt from the Intervention

Lessons learnt from the intervention are as mentioned below:

- Increased DLE confidence and better experience for end-consumers
 - Duet to the availability of the sample, the DLE started using and testing it herself allowing her to be the first endorser of the product. This firsthand exposure to the product helped her build her

sales pitch based on her own experience, which increased her confidence significantly.

- For consumers having a ‘touch and feel’ product experience and seeing the product in action increased their confidence in the product, which made them more likely to purchase the product. This also significantly simplified the sales process.
- Increase in DLE sales and DLE income
 - The inventory advance in the form of initial set of products for sale helped the DLE generate an initial income that further helped her procure more products for sales.
 - Immediate availability of inventory for purchase also increased the likelihood of conversions vs. the normal 1-week delivery time.
 - There is a significant impact on DLE sales and income performance of an average 55%.
- Reduced attrition rate amongst POWERED DLEs
 - Since DLEs had made an initial investment and had “skin in the game”, they were more committed to selling the products and recovering their investment, which reduced post-training DLE attrition rate from 10% to less than 5%.
 - One of the challenges was that a few of these first-time entrepreneurs declined the investment plan when invited for training and thus, we had to conduct a re-selection of DLEs. In cases where the initial investment was genuinely a hardship for the DLE, we helped the DLEs generate the money for the start-up kit through initial sales support. In other cases, this upfront attrition helped us reduce sunk costs that would be incurred by training DLEs who would leave after training. This reduced the overall DLE set-up cost by 15-20%.
- Increase in inventory costs and logistics complexity
 - Dharma Life had to incur additional costs to procure and store products at its warehouses

locations to ensure that the trainings, initial sales and follow-up sales plan are well aligned for effective project implementation. Additionally, we incurred costs for ensuring seamless and timely delivery of the demo kits and products. Delay in cash collection from consumers by the DLE and subsequent deposit of the same by the DLE leads to a delay in capital rotation. This, hindering the process of procuring goods for sales. An efficient cash collection and credit process has to be put in place for this.

Impact

Table 1. Snapshot of best performing districts in terms of DLE sales (first 3 months of the intervention)

State	Relative Enhancement in DLE Performance – Sales Numbers (DLE who had a start-up kit and DLEs who did not receive it)
Rajasthan	90%
UP	61%
Bihar	40%
Maharashtra	30%

Impact

Overall, providing start-up kits to Dharma Life entrepreneurs boosted their performance by 55% compared to an entrepreneur who did not have access to these kits.

- Since DLE attrition rate reduced to less than 5%, it translated to direct cost benefit for Dharma Life. Selecting and training a new DLE is a manpower intensive job that requires an initial investment. Thus, reducing attrition leads to a direct cost benefit of around INR 4,200.

Way Forward

As evident from the impact, provision of start-up kits to Dharma Life Entrepreneurs is an effective solution to increase uptake of clean energy and clean cooking products at the last mile. Dharma Life has made the provision of

start up kits a part of its core entrepreneurship model as well as all its future programmes.

To this effect, we are looking at building-in grant support for procurement of demo kits and working capital support alongside a first-loss to ensure provision of inventory advance to DLEs.

We also seek systematic support to build our credit management as well as collection processes to ensure smooth delivery of these kits. With this support, we look also look forward to putting in place an improved inventory tracking system to achieve expected results.

Dharma Life Entrepreneur

Rimjhim Devi

Village – Janki Nagar,
District – Munger, State – Bihar



Her Story - Rimjhim Devi of Janki Nagar village in Munger district, Bihar, was desperately looking for livelihood opportunities when she was approached by Dharma Life team to become an energy entrepreneur. Being born into abject poverty, she was married to a small farmer at a young age. The young couple works hard but it is a struggle for them to give their children a decent quality

of life. Rimjhim's husband says that his own income isn't enough to fulfil the basic requirements of the family or to provide good quality education to their kids. He supports his wife's decision of becoming an entrepreneur bringing a change to their life as well as of their community

Rimjhim says role plays, market simulation activities, etc. during Tejasvini training session helped her visualize her role as an entrepreneur and was instrumental in building her self-confidence. Prior to the training session, Rimjhim had never used an induction cooktop for cooking. She used her demo kit to conduct demo sessions which was critical as women looked forward to understanding the functionality of this new social impact product. The working capital support helped her cater to her first set of customers and then she circulated her income to procure more products. She sold 7 induction cooktops and half-a-dozen solar lights in 3 months' time.

Rimjhim Devi did not have any income before she was engaged as a Dharma Life entrepreneur so the increase in income is absolute. Her family income increased by 40%. Women in her village have limited access to gainful employment. Only a handful of them are engaged in livelihoods interventions. Most of them work on family field or work as laborer in nearby fields. Rimjhim is an inspiration for all of them

She has placed reorders for more induction cooktops as she is getting huge demand from neighboring villages and villages on her maternal side as well. This helped her earn her first income ever. She plans to keep her sales consistent to ensure her income is stable. Rimjhim's husband helps her put up product demonstration both in her village or other 3 villages in her cluster twice every month. He helps Rimjhim with stock keeping, maintaining the sale and demand register and delivering products to customers.

Lesson 2: Partnering with corporates to deliver behaviour change campaigns can increase the income of the woman entrepreneur by up to 30% while helping her build an identity in the community

The POWERED programme supported Dharma Life in scaling-up its rural entrepreneurship model, resulting in greater income generation for entrepreneurs and leading to further creation of livelihood opportunities for rural women through better awareness and training support in village communities. Dharma Life leveraged its existing programs and created partnerships around various social cause areas in addition to clean energy, such as access to safe drinking water, for product distribution as well as to drive innovative behaviour change campaigns to make the intervention scalable and sustainable.

The Problem

- Dharma Life Entrepreneurs promote social impact products in the community that are aimed to improve the quality of life at the last mile. So long as the DLE only sells products, it is difficult for her to build a relationship with her community. She is seen as a sales woman and not as a social change-maker which is important for her to command respect in the community. Thus, her engagement and impact solely as a clean energy sales agent is very limited.
- In addition, Dharma Life Entrepreneurs generate an income through the sale of products and services. Promoting only energy products gives her only limited monthly income as the products such as induction cooktops and solar lights have limited uptake within low income households.

Our Approach

Dharma Life took the following approach to address the problems stated above:

- Dharma Life leveraged its existing programs around clean energy and clean cooking to support POWERED entrepreneurs create awareness around this prob-

lem and ensure higher adoption of relevant products through innovative behaviour change campaigns such as Dharma Chef.¹

- The team leveraged co-funding from corporates for awareness generation initiatives as well as to drive innovative behaviour change campaigns around other cause areas such as nutrition, health, hygiene. For example: 'Mera Swasthya Meri Choice' campaign was aimed at creating awareness around menstrual hygiene at the school and community level.
- Also, Dharma Life created new partnerships to add to the DLE's product basket and support her with more avenues for income. POWERED DLEs also promoted nutrition products, water purifiers, sanitary napkins, etc.

Co funding leveraged from 2 private sector partners in Phase I and 5 additional partners in phase II (more than \$1m) to support layering activities in POWERED locations.

Impact

- Organizing and implementing behaviour change campaigns at the last mile boosts DLE income. Dharma Life created new partnerships in POWERED geographies:

¹ Dharma Chef, a multi-stage level cooking competition in which the participants cook traditional and fusion dishes on clean cooking devices like induction stoves thus breaking myths and biases surrounding modern cooking devices. Dharma Chef as a campaign is designed create awareness around the issue of Indoor Air Pollution (IAP), to encourage women in villages to try operating the product, and subsequently drive adoption.

- Leveraging various partnerships helped women not only earn an income through product sale but also by conducting behavior change activities enhancing incomes by 20-30%.
- Since all POWERED DLEs are first-time entrepreneurs, engaging them in behavior change campaigns early in their journey helped them connect with the community better. Entrepreneurs were engaged in 1-2 behavior change campaigns per month and dedicated 3-6 hours per week as per their convenience.
- Through additional product partnerships, Dharma Life also managed to add additional products to the basket – some high-ticket items such as water purifiers and some FMCG products such as sanitary napkins, thus adding to DLEs income sources. The objective was to include more products targeted to improve the quality of life at the last mile.
- Behaviour change and awareness drives also boost uptake of social impact products. For example: Organizing Dharma Chef in Uttar Pradesh boosted DLE sales by 43% vis-à-vis villages where Dharma Chef had not been organized.
- Not only are we giving aspiring rural women access to gainful employment, we also aim to give them a sense of identity and confidence as they engage with their community through various awareness and behavior change campaigns too. As per the KPMG analysis (Third-party assessment),²



2. Dharma Life engaged third-party agency, KPMG to conduct a dipstick assessment across three states. Data was collected through qualitative and quantitative means basis consultation with various stakeholders – Dharma Life Entrepreneurs, community members and DLE family members.

- It was reported by the DLEs that there has been a positive change towards other women in the society after they joined the programme - 96% of the women interviewed report a positive change in their role in family and society
- DLEs are being recognized as change makers in the community as these layering activities serve the dual purpose of connecting with the community and impacting the overall quality of life for low income rural households by addressing the issue of awareness, availability and access to social impact products and services. DLEs are not just perceived as sales agents, but trusted agents of positive change at the grassroots level. 57% family members plus community members reported an increase in respect towards them within the community

Lessons Learnt from the Intervention

- Additional Training required to conduct behavior change campaigns
 - Dharma Life conducted additional training sessions – 1 to 2 days to train DLEs on mobilizing community members and engaging them in the campaign
 - This session is critical to give them a hands-on experience of conducting the activity on ground and help them become familiar with the collaterals
 - It also gave us an opportunity to use these sessions to re-orient DLEs and provide them soft-skills training.
- Communication Content is critical to engage the community
 - As per DLE feedback, interesting tools and sessions to engage the community helped deliver the message effectively. We created and tested content on ground to gauge DLE and community feedback, basis which we re-tailored our content for maximum impact.
- Example - Menstrual Hygiene awareness initiative ‘Mera Swasthya Meri Choice’ was the most impactful

programme; it helped the DLE connect with the women in her community that further helped her conduct sales.

- Generating additional income through leveraging partnerships / layering activities further helps DLEs stay motivated and committed
- Also, sales impact from behavior change impacts is extremely positive. Based on our learning from the field, DLE sales income increases by 25-30% during the behavior change campaign as well as for the subsequent 1 to 2 months.

Way Forward

Moving forward, Dharma Life aims to further build and leverage partnerships that help DLEs layer their livelihood interventions, thus resulting in more long term engagement and a more holistic impact on the quality of life of last mile households.

Dharma Life is now planning to develop Smart Village where we work on multiple causes in a single village with the DLE as a catalyst of change. DL's Smart Village plan involves an integrated multi-thematic approach to improve the overall quality of life of rural households in a village. The objectives will be achieved by bringing in low-cost innovations to create awareness, drive behavior change and encourage adoption of relevant products and services around energy, health, agriculture, nutrition, hygiene and sanitation. We will create a village level plan and engage the DLE to deliver this within the stipulated time frame.

Dharma Life has designed and is implementing a Gender RBF (Results based Financing) model with London Business School to quantitatively assess the impact of community engagement on the DLE's confidence and performance as well as the perception of her community towards women. The results of this study will be shared within the sector. We are employing innovative tools to present quantitative results at the end of the interven-

Dharma Life Entrepreneur

Antima Pandey

Village – Kamela, Block – Haidergarh,
District – Barabanki, State – Uttar Pradesh



Her Story - At a young age, Antima lost her father and now stays with her extended family of her mother's brother where there is a total of 18 members. She is just 21 years old and joined Dharma Life in December, 2018. Antima's mother worked as a cook in a local school to earn a livelihood and look after the family, which consists of Antima and her two brothers, who are still young and studying in school. Antima saw her mother constantly worrying because as the sole bread earner she had to take care of her children and plan their future. Being the eldest daughter,

Antima wanted to help her mother and was looking for a work opportunity when she got an opportunity to work with Dharma Life's as a part of POWERED project. She has sold more than 3 dozen lights and a big number of induction cooktops in her community.

Antima is also excited about her role as a librarian in the Solar Library that has been set up by Dharma Life in association with Signify Foundation in one of the schools in her village. She is earning a fixed income for her services as a solar librarian. She regularly meets families of children who have borrowed the solar light from school and pitch relevant products for sale. Antima says that the parents get first-hand experience of solar lights through their children and this experience has proved crucial for them to understand the relevance and utility of solar lighting solutions. The project is expected to have a catalytic effect on local market demand for solar lights. In addition, it has given a new identity to Antima in her community.

In addition, Antima also created awareness around menstrual hygiene through training programmes promoting the use of hygienic period products and bursting myths around menstruation in India. She has also conducted a mohalla activity with women creating awareness around menstrual hygiene. Women now approach her for their female hygiene queries and to purchase sanitary napkins. She is also associated with Dharma Life's nutrition project. She organized a launch event in her village and since then, is promoting iron-fortified lentil based snack packs in her community to promote good health amongst children.

Not only does Antima feel empowered, with her earnings, she has started supporting her financially as she is earning a monthly income of INR 3000-4000 per month on an average. She is also investing in her own education. Antima is currently in her first year of undergraduate college. She finds a strong support in Dharma Life's field team and says that the training sessions have given her confidence to dream bigger and soar higher. She further hopes to reach out to more households, promote more Dharma Life products and increase her income through a long-term engagement with Dharma Life.

Lesson 3: Alternative Consumer Financing model increases productivity and encourages the uptake of Clean Cooking solutions by low-income households

Rural Indian villages do not have access to developed last mile delivery networks for products, especially cause-based products such as solar lights, induction cooktops, etc. This further has a significant impact on women and girls, given gendered roles and responsibilities. Through POWERED support, Dharma Life is looking to create awareness and provide access to these products through engaging and training first time female entrepreneurs. Through this initiative, we are also testing and piloting innovative approaches to address the issues of awareness, access and affordability.

The Problem

- Dharma Life's past interventions have sought to address affordability as a constraint to access to products and services by providing financing to rural entrepreneurs. Entrepreneur financing, however, is seen to only solve one end of the affordability problem. Consumers still find themselves financially constrained and are not able to purchase quality products such as induction cooktops due to the high upfront costs of acquisition, which is in the range of USD 25-45.
- Dharma Life Entrepreneurs are working to create awareness around the issue of indoor air pollution, but with low purchasing decision making power with women in rural communities, affordability continues to be a major constraint to drive adoption as women have limited financial independence at the last mile.

Our Approach

One of the approaches to address this challenge, therefore, was to introduce affordable consumer financing for products. In line with this objective:

- Dharma Life piloted an affordable Consumer Financing Model in 2 Phases for one of its higher priced products i.e. induction cooktops. Dharma Life

selected DLEs who have been actively engaged for over 10 months.:

- Phase I – Test phase was initiated in September '18 with 20 DLEs and lasted for 6 months. We focused on how much maximum sales impact we can achieve per DLE because of the extension of consumer credit. The plan was to employ the learnings from here for phase II.
- Phase II – We took a more balanced approach in Phase II wherein the Consumer Financing model was scaled to 230 DLEs and was tested for a period of 3 months from June'19
- The field staff i.e. Channel Development Officers (CDO) worked closely with the DLEs to identify and screen customers and collect the instalments.
- Dharma Life took the following approach to operationalize the process on ground:
 - Screening: The potential consumer undergoes credit assessment screening (explained in the next point) by the DLE or the CDO, followed by KYC document submission and signing an agreement.
 - Down Payment: Token amount is collected as a down payment on the day the product is delivered by the DLE or CDO.
 - Consumer Payment Card: Dharma Life gives a payment card and Induction cooktop to the customer; first instalment amount and date is noted on the card and this is also recorded by the DLE and the CDO.
 - First Instalment: CDO and/or DLE visit the customer on the 8th day following product delivery to collect the first instalment. Customer

is given the due date of their next instalment, which will be the 15th day post product delivery.

- The Second Instalment: The second instalment to be collected on the 16th day. The amount paid and date is noted on Dharma Life tracker and the payment card of the customer. After making the second instalment payment, customer is given the date of their next instalment, i.e. 21st day.
- The Final Instalment: The third instalment is collected on the 24th day. The amount paid and the date is noted on the Dharma Life tracker and the payment card of the customer.
- Potential customers are selected using a screening tool - Consumer Assessment Framework jointly developed with the London Business School and the London School of Economics professors based on psychometric testing, alternative Know Your Customer (KYC) framework and social referencing to enable data-driven responsible financing at scale.
 - We kept the number of questions for the second and third section to a minimum - 6 questions in the credit information section and 8 in the social referencing section.
 - In the credit information section, we assessed the family size, the education levels and their current credit and credit history. In the social referencing section, the Dharma Life field team identified a neighbor or someone who has previously lent to the potential consumer. The family reputation and their ability to complete payments are accounted for. The second sections are given weightage to identify the best consumers to whom consumer credit should be provided
- The data was collected on Dharma Life's tech platform DL Trac (Dharma Life in-house mobile application that works in both online and offline mode) to select the eligible customers for consumer credit.

Impact

- Lead to conversion rates has increased by 20-30%, as compared to DLEs who did not have access to Dharma Life's formalized consumer financing option. Low

income rural households who have been made aware about the benefits of induction cooktops are now adopting the product on easy monthly installments. Through the systematic process, Dharma Life was able to address the issue of affordability and increase the penetration of sales for the product category of clean cooking solutions

- Consumer financing also helped boost DLE throughput (in terms of sales) and subsequent increase in income as explained below:
 - Phase I - The average sale per DLE increased by around 200% due to consumer financing option as compared to a non-consumer financing scenario in the same region during same time.
 - Phase II - The DLEs who started offering consumer credit option to their customers in Phase II, on average saw an increase in income equivalent to around 5 induction sales per month, which translated to a throughput increase by around 120% in this scenario also.

Lessons Learnt from the Intervention

- Higher sales numbers of clean cooking products due to easy access to consumer finance prove that Consumer Financing model increases productivity of DLEs and encourages uptake of Clean Cooking solutions by low-income households
- Given that Phase II coincided with the monsoon season, the sales number was lower than expected. Also, this year monsoon season extended beyond the usual season until July that further impacted the performance. Also, the cash collection timeline coincided with the sowing season where in the rural households channel their funds towards agri inputs. Moving forward, it is critical to consider the right time of the year while extending credit thus positively affecting consumers' decision making. For example: It makes more sense to target agri-dependent households just before the sowing season (when they don't have funds to purchase household durables) so that they can make payment post the harvest in stipulated time-frame.

- Consumers were allotted 24 days to repay the full amount. More than 75% stuck to the schedule as per the analysis provided below. High Repayment Rate from consumers at the last mile makes us optimistic about providing consumer financing in other projects also.¹

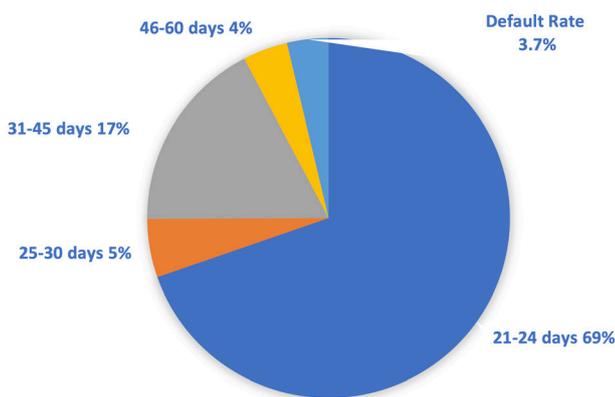


Figure 1 Repayment Rate - Phase I

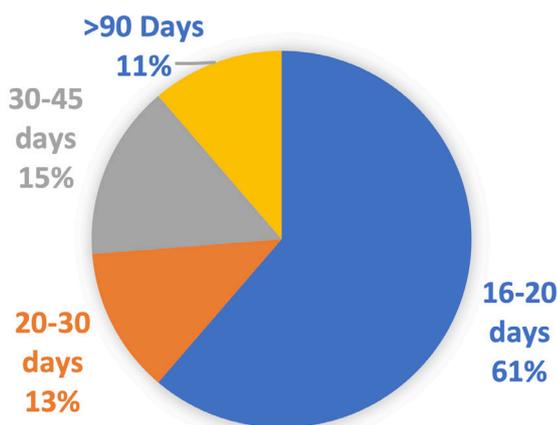


Figure 2 Repayment Rate - Phase II

1. If the consumers do not paid the full instalment within 90 days, Dharma Life team has collected the induction cookstoves back from the consumers. This is the process as per the agreement the consumers sign when purchasing the induction cookstove on consumer credit.

- Consumer demographics suggest that Repayment Rate is vastly dependent on the consumer profile too. For households earning daily wages, 24 day schedule was beneficial. However, a salaried rural household preferred a monthly installment option.
- As per feedback collected from field, DLEs convinced first the woman of the house about product benefits and its impact on the quality of life. If the woman showed interest but posed affordability challenges, DLE went back with consumer financing option accompanied with the CDO (especially during first 2 months of the intervention) and pitched the same to the couple preferably or the woman alone. Most women seemed excited about the idea but depended on their husbands to take the final call.
- So basically, DLE had to sometimes, say in 30-40% cases rely on husband/male’s presence in the house to collect requisite information for consumer screening as the woman did not necessarily have all the information and it would take multiple visits for her to fill the same.
- Inculcating credit discipline amongst the last mile households takes some time and is manpower intensive initially but gives long term impact
 - Consumers tend to pay the installment amount whenever they have cash in hand. Behavior change takes time and it takes multiple iterations to make the model successful. As per DLE feedback, it takes multiple visits to collect the instalments, but people rarely don’t pay. Furthermore, DLEs suggest that peer pressure and social bonding in villages is strong and for the same reason, people don’t want to default and put their reputation at stake
 - The field team i.e. Channel Development Officers works in very close coordination with the DLEs for customer identification, customer screening and instalment collection. Their role and participation proved to be very crucial for the smooth implementation of the project. CDOs coordinated with around 4-5 DLEs in Phase I of the pilot and 10 DLEs in phase II of the pilot respectively vis-à-vis their engagement with 30-40 DLEs in a

usual scenario. An easy installment process and requirement of minimal documentation details further encouraged customers to opt for the consumer financing option.

- People easily understood the process since all it required was managing a single customer copy. It did not involve multiple signatures as is usual in MFI or banking operations. Plus, the questions were restricted to 15 simple questions and provision of a single ID proof. Thus, consumer assessment framework designed by Dharma Life was simple enough to be conducted quickly while providing an adequate screening result.

Way Forward

- Consumers have expressed interest in procuring other products such as cookware and solar lights through this model. The model has shown great potential in terms of good repayment figures and low default cases. However, since the process is manpower intensive, we propose the following model to scale up this intervention and encourage uptake of clean energy products at the last mile through following steps:
- Amalgamating MFI Sales and DLE model as we go forward
- We are looking to raise a high risk credit line (at the rate of 4-5%) and extend it to our MFI partners who in turn can give out loans to low income consumers in their network only for energy products such as solar powered home lighting solutions of clean cooking solutions, provided these sales are booked by Dharma Life Entrepreneurs. This would help us address the issue of delay in repayment and make the process highly efficient and robust.
- We also plan to build an online payment model to make consumer financing a more effective option for product promotion. We seek support to build the capacity of DLEs as well as consumers to opt for online payment methods.
- Lastly, Dharma Life is also looking to take a customer segmentation approach to cater to different kinds of rural customers. Based on our learnings from this

pilot, detailed customer segmentation will allow us to customize our repayment schedules as per financial status of the household. A tailored repayment plan basis customer demographics is expected to solve the issue of delay in repayment. A pilot to test these hypotheses will help us come up with a successful long term consumer financing strategy in energy space.

Dharma Life Entrepreneur

Beenu Singh

Village – Gotawa, Block – Bahadurpur,
District – Allahabad, State – Uttar Pradesh



Background - Beenu got married at a very young age of 19 years old. She is 36 years old right now and has been associated as an Entrepreneur with Dharma Life since 2016. Before joining, she never even used to go out of her house. It was difficult for her to talk to new people and she used to be mostly confined to her household duties. She says Dharma Life training was a unique experience for her and reinforced her confidence in the organization. She then

started visiting households of friends and family, created awareness around the causes and relevant products that she is promoting

Based on her sales performance and community engagement level, Beenu was chosen for the consumer credit pilot too. She is amongst the 250 DLEs who are working on the consumer credit model at the last mile. Since commencement of this intervention in October'18, she has sold more than 160 induction cooktops through the consumer credit model with less than 3% default rate. Her field manager constantly supports her in customer identification, product pitching, cash collection and customer engagement.

Her income has increased drastically due to consumer credit model i.e. around INR 3000/- per month. She says it's just not about sales or income, its more about the awareness and changes in the society that she aspires to make. She feels satisfied when people inform her that they are happy with the induction cooktops. Women often tell her that they have so much extra time now that was earlier reserved for fuel collection and cooking. She is saving her income to save for a better future for her children. She says that she aims to give them the best education and career prospects in life.

She says it took some time for her to understand the model completely in terms of understanding the repayment plan, reporting on the App and collection method. But with her field manager's support, she managed to catch up quickly and is now successfully implementing the credit model on ground. Dharma Life engagement boosted her self-confidence and she even applied for Government's Kaushal Vikas Yojna (Skill Development Program) with her husband and now teaches 110 adolescent girls in the Kaushal Kendra. She says that it wouldn't have been possible if she was not working as an Entrepreneur. She further aims to work closely with Dharma Life and aspires to better the status of the women in the society and provide them livelihood opportunities just as she got one.

Lesson 4: Expect operations and business results to take double the time when working in higher poverty and more challenging geographies

In line with POWERED project's objective of reaching out to low income, remote and rural households in India with clean energy solutions, Dharma Life has created a network of last mile women energy entrepreneurs in rural pockets of various districts in Odisha, Uttarakhand, Haryana, etc., that are fairly remote and difficult geographies to work in.

With abundant forests in the hill state of Uttarakhand, a whopping 11 lakh households use traditional cookstoves for cooking. The rate of extraction is often not sustainable for forests and is leading to drastic environmental and social hazards for the local community. Similarly, Around 73.7% of households in rural Odisha use wood for cooking. Similar number still depends on kerosene lamps for their lighting needs. Mostly these regions are naturally endowed and have easy access to fuelwood, thus increasing their dependence on conventional and hazardous sources of energy impacting the health and overall well-being of the people in the region. Having said that, limited interventions have taken place in these regions to create awareness and encourage adoption of clean energy solutions.

The Problem¹

- It was difficult to start and run operations in these regions due to the vast geographical spread and lack of infrastructure in remote pockets. The operational complexity results in larger than usual upfront costs. This discourages social enterprises from work in these difficult regions to address the issue of lack of livelihoods opportunities for rural women and access to social impact products. We also found it challenging to work in these geographies.

Our Approach

Dharma Life customized its existing approach in the following manner to cater to these new and challenging geographies:

1. <https://www.thehindubusinessline.com/specials/how-solar-power-is-turning-rural-india-bright-and-shining/article9277415.ece>

- Dharma Life created a work plan to expand to new geographies such as Haryana, Odisha, Jharkhand and Odisha. This involved conducting Focussed Group Discussions with community members in some of these locations and relied on secondary data for others to better understand the local challenges and scope of opportunities.
- In our usual geographies, the expectation is that it takes about 4 days to select 2-3 new DLEs. The Channel Development Officer (CDO) identifies clusters of 3 new villages that are close to each other. On any day, he goes to 1 cluster, or 3 villages, and speaks to the head of the village of each village, the 'sarpanch', in order to get information on potential DLEs. Once he gets leads for the women in that village that fit the criteria for becoming DLEs, the CDO goes to the women's houses and introduces Dharma Life and the concept of the Dharma Life Entrepreneur to them and their families. He goes back the next day to further convince the women to become DLEs. Generally, he is able to finalise the recruitment of 1 woman in each of the 3 villages (therefore, 3 DLEs) by day 2. He goes back on day 3 to either have an introductory session for new leads he might have received or to brief the newly recruited DLEs and welcome them to the company. Therefore, the assumption is that the CDO will be able to recruit 1 woman in about 1.5 days on average and that we had allotted proportional number of days for recruiting new DLEs in this project also.
- As we learned through this project, this pace of recruitment was only possible because of how close villages in states like Uttar Pradesh are. Additionally, because the areas that we normally operate in are relatively safe, the CDO can work from 10am to 4pm and cover 3 villages per day. This was not possible in some of the new geographies that we expanded into for the POWERED project.

- Dharma Life expanded to states like Odisha, Uttarakhand, Haryana, and each state presented its own set of problems that we had to innovate to solve. The distances in Uttarakhand were larger because it's a hilly region, the CDO couldn't work past 2pm in the Maoist areas of Odisha, it was hard to meet women in Haryana because it is a very conservative area and the women would not come forward. Additionally, the people in these states were relatively more poor and couldn't afford the start-up kits. For example, in Uttarakhand, it took about 4 days to select 1-2 DLEs. Therefore, it took almost double the amount of time to recruit new DLEs in Uttarakhand compared to what we had planned.
- We had to devise a customized method of solving the issue in each state and had to use an iterative approach to get to the final plan for recruiting DLEs in each state. We held Focus Group Discussions with community members in some of these locations and relied on secondary data for others to better understand the local challenges and scope of opportunities.

Impact

- Around 40% of the 3000 entrepreneurs selected as part of the POWERED project were from challenging geographies – Uttarakhand, Odisha, Jharkhand, some locations of Maharashtra and UP
- These women entrepreneurs are operating in Maoist conflict zones of Nayagarh district of Odisha, hilly areas of Uttarakhand, patriarchal communities of Haryana, etc. and reaching out to rural masses unaware of harmful effects on indoor air pollution on health as well as environment. This led to multiple level of impact:
 - Women have very limited employment opportunities in the region. Around 55% women engaged as DLEs in Jharkhand and Odisha work as daily wage earners. Thus, this provided them an additional source of livelihood, which most of them are saving to giving their children quality education and a better future.
 - These women also have mobility challenges and

can't travel long distances to access livelihoods opportunities. But becoming a Dharma Life Entrepreneur allows them to work in their village as per their convenience.

- Further, they are creating awareness around issue of indoor air pollution amongst community women who have limited knowledge of the impact of using traditional cooking sources and kerosene lamps for lighting. DLEs are encouraging women to shift to cleaner solutions to improve their quality of life.
- These DLE did 48% of total sales. Since these regions have high poverty index and almost all DLEs are first time entrepreneurs with limited exposure, we expected the sales to be lower as compared to other regions. DLEs took some time to find their feet in the field but once they gained confidence, they managed to match up the sales numbers of their counterparts in other states. However, their sales cycle were 1-2 months longer.



Lessons Learnt from the Intervention

- Additional Grant based support is essential to ramp up the model to difficult geographies especially to set up the logistics in the region
- Level of difficulty in these regions should be taken into consideration at the time of project design to accommodate additional costs and resources. For example: DLE attrition in these regions post training increased by around 14% as compared to UP thus, leading to re-selection and training of DLEs. Some of the reasons for attrition were initial investment re-

quired (due to high poverty index in these regions) and thus, Dharma Life had to put additional resources to help them with initial sales.

- A whole different set of challenges was faced while starting the project in the hilly districts of Uttarakhand. Sustainable adoption and usage of these solutions in rural Uttarakhand required a combination of supply-chain improvements as well as carefully designed social marketing schemes and promotion campaigns. Larger Community campaigns such as LPG Panchayat and Mushroom Farm intervention helped the DLE connect with the community and generate leads for sales, which she later managed to convert to sales through home visits.
- Dharma Life has created a network of last mile women energy entrepreneurs in rural pockets of Odisha. These women entrepreneurs are operating in Maoist conflict zones of Bhapur, Khanadapada in Nayagarh district. But it has also been equally difficult to operationalize the project in these areas. One major challenge is the limited time frame during the day to work with these communities since it is unsafe to stay in these remote villages after 2 p.m., so the teams started their work really early in the morning. Also, the team has to travel together to these far-flung areas for mobilizing, DLE training, supporting DLEs to create awareness and promoting social impact products in the region.
- It took additional time (around a month or so) as compared to states like UP or Bihar to build trust with these women entrepreneurs initially as there has been cases of multiple frauds earlier by different fraudulent groups. But clear one to one communication with them, creating a proper beat plan by the team and helping them do sales activities in their villages is slowly helping us build rapport with the entrepreneurs.

Way Forward

The social impact of this intervention in these territories has been in promotion of livelihood opportunities & entrepreneurship, improved health of communities, reduced deforestation and environmental degradation, access to modern cooking solutions, improved energy

security and improved standard of living. Further, Dharma Life aims to take the project and reach into much deeper parts of India. We plan to work to scale up to other districts in the states of Uttarakhand, Odisha and Jharkhand in addition to other states such as Assam and West Bengal. We are also looking at leveraging local partnerships in the region for convergence leading to larger impact.

Dharma Life Entrepreneur

Babita Devi

Village – Nishni, Block – Pauri,
District – Pauri Garhwal, State – Uttarakhand

Background - - Babita Devi, 36, belongs to Nishni village of Pauri district, a hilly region in the state of Uttarakhand. She stays with her family of 4 members including her husband, who is a farmer and her two children who are still in school. Babita has seen a tough time, when her husband used to migrate regularly between her village and the main town of Pauri to generate an additional income but soon realized that the costs outweighed the benefits and it became impractical to pursue it anymore.

Babita joined Dharma Life in October 2018 in the POWERED project, which she says is a huge support for her. She has already sold 5 induction cooktops, 2 solar lights, 2 cooker, and 1 induction utensil set. Since her husband is a farmer, the family does not have a regular monthly income. Babita's small income of INR 1000-2000/- per month is improving the quality of life for her family as she can now easily take care of the minor expenses. She regularly holds community meetings in her village to raise awareness and promote sales. In addition to this, Babita has successfully organized LPG Panchayat program in her village. LPG Panchayat is a Ministry of Petroleum and Natural Gas Ministry, GoI initiative and serves as a platform for LPG consumers to interact with each other, promote mutual learning and sharing of experiences. Babita mobilized around 85 LPG customers together in her village to discuss about safe and sustainable usage of LPG, its benefits and the linkage between use of clean fuel for cooking and women empowerment.

Impact - Babita, being an active entrepreneur has also been inducted in mushroom cultivation intervention initiated by Dharma Life in Uttarakhand. She has learnt various scientific and technical skills required for the cultivation. She has been given insights for technical farm setup, awareness and linkage to government schemes and about compost preparation. Through POWERED project, Babita has gained confidence and is now ready to take on the responsibility of assisting the local farmers for mushroom cultivation. She hopes to set up a farm in the near future and wants to become a role model for the villagers, especially women, for her hard work and dedication. She has also finalized the location of the farms.

Babita feels that mushroom acts as a crucial cash crop not only in terms of income but it will also improve the socio-economic condition of her family. She has a few ideas of her own and wants to add innovation in mushroom farming with help of Dharma Life team members. During her association with Dharma Life, she learnt that farming can be done, surprisingly, with no machine or electricity as well. It is a cost-effective method which anyone can adopt with a meagre investment of Rs. 60-100. Babita belonging from a small village had to face many difficulties because of limited means and resources. Yet, despite all the struggles, Babita is an enthusiastic and enterprising female and is taking on new challenges with a positive attitude. She has found her new calling.



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