

# IMPACT ASSESSMENT OF A FOCUSED DEVELOPMENT PROGRAM (FDP)

A Report



# Impact Assessment of a Focused Development Program (FDP)

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A Report

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## Abbreviations

<b>ACF</b>	Ambuja Cement Foundation
<b>CSR</b>	Corporate Social Responsibility
<b>FDP</b>	Focused Development Program
<b>FGD</b>	Focus Group Discussion
<b>GP</b>	Gram Panchayat
<b>HRDP</b>	Holistic Rural Development Program
<b>IDI</b>	In-Depth Interview
<b>PRI</b>	Panchayati Raj Institution
<b>VDC</b>	Village Development Committe

# Chapter 1: Introduction

## 1.1 HDFC Bank CSR – Parivartan Program

HDFC Bank helps in transforming lives of millions of Indians through various social initiatives. HDFC Bank has a comprehensive program named as ‘Parivartan’ aiming to contribute towards the economic and social development by sustainably empowering its communities. The Parivartan program has been a catalyst in making a difference in the lives of people through its interventions in the areas of rural development, education, skill development and livelihood enhancement, healthcare & hygiene, and financial literacy.

Under Parivartan, the bank has a flagship “**Holistic Rural Development Program (HRDP)**” focused on Rural Development and caters to the needs of the rural communities in multiple focus areas simultaneously, the “**Focused Development Program (FDP)**” is another important program where the Bank chooses an implementing partner with expertise in one of the focus areas and tries to improve the lives of the target beneficiaries. around that focus area. The progress of all the projects under these HRDP and FDPs are assessed through systematic routine monitoring guided by a structured TOC and independent evaluations are also conducted to assess the effectiveness of projects under these programs.

## 1.2 About FDP on Promotion of Renewal Energy

The focused development programme (FDP) to promote the renewal energy was implemented in two districts— (a) Haridwar in Uttarakhand and (b) Agra in Uttar Pradesh, covering 93 and 10 villages respectively. The FDP was implemented between December 2021 and February 2022 by a partner NGO—Ambuja Cement Foundation. The key aim was to contribute to HDFC Bank CSR goal number 5 – reduce carbon footprinting and sub-goal of having 103 villages with clean and renewable energy solutions which is linked to sustainable development of two districts under the project as per SDG.

Following were the specific objectives of the FDP on promotion of renewal energy:

- To cover 103 villages under renewable energy with installation of 1000+ street lights approximately @ 10 lights per village
- To improve the living condition of the rural communities through solar light availability
- To promote clean and renewable energy solution

The primary beneficiaries were 32,967 households covering a population of 1,87,339 in two districts where 103 (93+10) villages were covered.

The expected deliverables under the project included:

- (a) Installation of 1000+ solar street lights in two districts—Haridwar and Agra
- (b) Sensitizing women beneficiaries and formation of group to engage the Gram Panchayat for the maintenance and sustainability of the facility.

HDFC Bank intended to conduct the impact assessment of the FDP on promotion of renewal energy to evaluate efficacy, effectiveness and sustainability. IMPACT was entrusted to conduct the impact assessment for the FPP.

## 1.3 Specific Objectives

The objectives of the impact assessment of the FDP on promotion of renewal energy were:

- How effective is the installation of solar street lights at different locations in the villages.

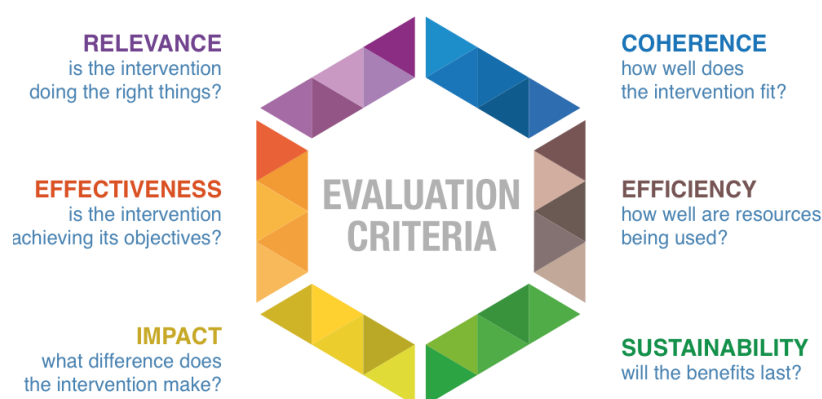
- To what extent installation has benefitted the communities covered under the installation areas.
- What mechanism has been adopted for the maintenance to sustain the benefits of solar street lights in the villages?
- To obtain the experiences of beneficiaries specially women, men, boys and girls and assess the pre and post installation situation.
- To understand the challenges in the maintenance of solar street lights and how sustainability could be ensured within the existing situation and settings.

## Chapter 2: Methodology

This chapter describes the detailed study methodology adopted for the impact assessment study including research methods used, sample size, sampling procedure, survey implementation for the data collection, data management, etc. The details on assessment framework, sample and survey implementation, etc. have been discussed in the forthcoming sections.

### 2.1 Assessment Framework

For undertaking the impact assessment studies, we propose to use following assessment framework which the standard OECD-DAC criteria<sup>1</sup> considered as one of the gold standards in evaluation. This framework recommends adapting this framework, wherever feasible and applicable:



Using this framework, IMPACT suggested following questions/indicators that were adopted to assess the FDP, using the six parameters stated above. These questions were finalized in discussion with the HDFC MEL team.

	Indicators/Questions
<b>Relevance</b>	<ul style="list-style-type: none"> <li>What criteria were adopted by the NGO to identify the locations of installation of solar street lights</li> <li>Did community and gram panchayat also felt the need for solar street lights</li> </ul>
<b>Coherence</b>	<ul style="list-style-type: none"> <li>What challenges were faced by the communities due to non-availability of street lights</li> <li>Options for the availability of repair and maintenance services of installed solar street lights</li> </ul>
<b>Efficiency</b>	<ul style="list-style-type: none"> <li>What proportion of beneficiaries could get the benefits of the support</li> <li>What areas and sections of the villages are covered</li> <li>What proportion or number of Gram Panchayats or stakeholders received information on developing mechanism that can be used for the maintenance of solar lights</li> </ul>
<b>Effectiveness</b>	<ul style="list-style-type: none"> <li>The extent to which the investment achieved the intended objectives/outcomes of HDFC Bank CSR</li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>Proportion of beneficiaries stated the type of benefits</li> <li>Number of women groups/Gram Panchayats have mechanism of maintenance in place</li> </ul>
<b>Sustainability</b>	<ul style="list-style-type: none"> <li>Gram Panchayats and Women Groups have understanding on the need of maintenance of solar lights</li> <li>Mechanism in place on how to undertake regular maintenance and repairing person contacts</li> </ul>

<sup>1</sup> <https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>



## 2.2 Methodology for Data Collection

A mixed methods approach was used wherein the qualitative research methods included in-depth interviews with the Gram Panchayat official (stakeholders) and focus group discussions conducted with beneficiaries—women, men, adolescent girls and boys. Additionally, a quantitative checklist was filled in each village through physical verification and observation of the availability and functionality of support provided to the villages (installation of solar street lights) under FDP.

## 2.3 Target Groups

Following target groups were included in the study:

- Women beneficiaries
- Men
- Adolescents (Boys and Girls)
- Gram Panchayat Officials
- FDP representatives

## 2.4 Sampling Process

The details on sample size, selection of villages, target groups etc. have been discussed in the following sections.

### 2.4.1 Sample Size and Selection of Villages

Considering the nature of support provided by HDFC Bank CSR in the FDP, we proposed to cover a sample of 13 villages out of total 103 villages. Considering the FDP coverage, it was proposed to cover 10 villages from Haridwar district and 3 from Agra, among the sample of 13 villages. Further within Haridwar, the 10 sampled villages were distributed proportionately among the project blocks (2 villages in smaller and 4 in bigger blocks). The sample coverage by blocks is as follows:

Blocks by Districts	Total Villages	Villages covered
<b>District: Haridwar</b>		
Bhadrabad	10	2
Bhagwanpur	12	2
Narsan	61	4
Roorkee	10	2
	<i>Sub total</i>	<b>10</b>
<b>District: Agra</b>		
Fatehabad	10	3
<b>Total Villages</b>	<b>103</b>	<b>13</b>

### 2.4.2 Target Groups

In each selected village, various target groups were covered as shown below:

- (a) 1 Observation Checklist of Solar Street Lights
- (b) 1 Focus Group Discussion with Women
- (c) 1 Key Informant Interview of Gram Panchayat Member
- (d) 1 Focus Group Discussion with Men
- (e) 1 Focus Group Discussion with Adolescent Girls
- (f) 1 Focus Group Discussion with Adolescent Girls

In each selected village, physical verification of the solar street lights in terms of functionality, installation status, functionality of battery, type of locations covered, etc. was undertaken.

Under the assessment, total 4 FGDs (one each as discussed earlier) with (a) members of women group, (b) men and (c) adolescent girls and (d) adolescent boys, were conducted in each village along with Key informant Interview with PRI member.

Following sample was covered:

Blocks	Villages	Village Checklist	Focus Group Discussions				KII
			Women	Men	Adolescent Girls	Adolescent Boys	Gram Panchayat Members
1 per village							
<b>Haridwar</b>							
Bhadrabad	2	2	2	2	2	2	
Bhagwanpur	2	2	2	2	2	2	
Narsan	4	4	4	4	4	4	
Roorkee	2	2	2	2	2	2	
<b>Agra</b>							
Fatehabad	3	3	3	3	3	3	
<b>Total</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	

### Sample Coverage

S.No.	Type	Sample	Numbers
1	Village Checklist (Status of Solar Lights)	13	13
2	FGDs (4 FGDs per Village)	52	467
	Women	13	128
	Men	13	122
	Adolescent Girls	13	101
	Adolescent Goys	13	116
3	KII with Gram Panchayat Members	13	13

## 2.5 Development of Tools

For the assessment, comprehensive discussion guide was developed to capture the views of the target groups. Additionally, a village checklist was developed which was purely quantitative to gather information on the current status of solar lights installation. FGD Discussion Guides were translated into Hindi prior to the data collection.

## 2.6 Team Deployment and Data Collection Process

A team of 3 persons comprising of 2 males and 1 female was deployed to finish data collection in one village in a day. A total of 2 teams for Haridwar and 1 team for Agra covered all the sample villages. Additionally, one coordinator was deployed to supervise and coordinate with the data collection teams and manage the field level challenges. All the team members were from Uttar Pradesh having minimum education equivalent to Graduation in any discipline with social sector experience of conducting surveys.

## 2.7 Training of Data Collection Teams

One day training of the data collection team was organized at Agra on 11<sup>th</sup> April, 2023 and all the team members were provided with detailed methodology and orientation on study requirements, contents and survey specifics. The training was

## 2.8 Data Analysis and Report Writing

A detailed Analysis Plan was developed and content analysis was undertaken for all the FGDs and in-depth interviews to derive the coverage and findings as well as draw valid conclusion. Senior researchers at IMPACT did the report writing based on the content analysis and quantitative results.

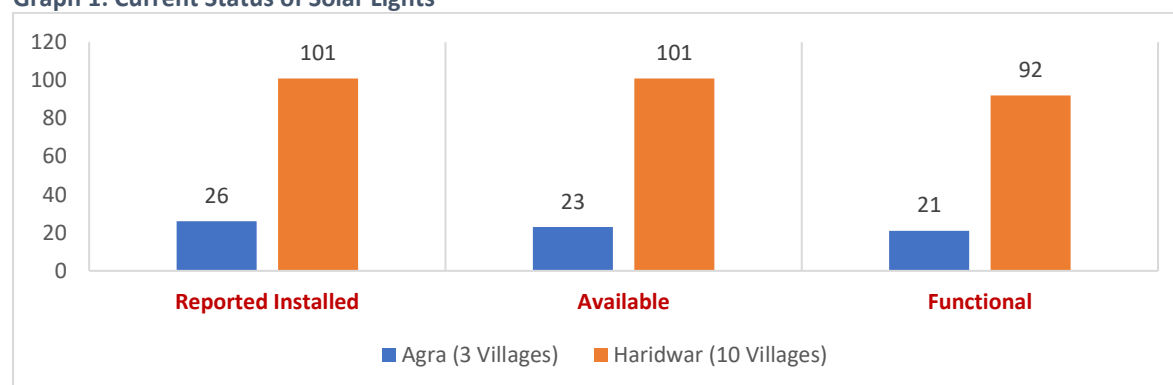
## Chapter 3: Study Findings

This chapter presents the salient findings of the study undertaken for the impact assessment of Focused Development Project of HDFC Bank. The collected information has been discussed at length to provide an overview on various components of the research indicating the impact of Solar Lights on villagers in Agra and Haridwar districts. Following discussion provides the status of the project in the covered villages.

### 3.1 Findings from Checklist

A total of 13 villages were covered under the assessment wherein 10 villages were in Haridwar and 3 in Agra districts. As per the reported data, 127 solar lights were installed in 10 villages but only 124 lights were found which were cross-checked with the FDP team at Agra office and found correct. The program team confirmed that there is a village named Swar in Fatehabad block of Agra district, where 6 solar lights were to be installed but 3 solar lights were installed considering the lower proportion of households available in the village as well as their need for the same. Following Graph 1 depicts the current status of solar lights in both the districts.

Graph 1: Current Status of Solar Lights



Under the assessment, physical verification of all the installed solar lights in a village was conducted in coordination with field facilitators working under the FDP. All the locations were shown by the field facilitators and the team members conducted the verification using the checklist. Findings from the checklist suggests that 21 out of 22 (95%) were available and functional. All 22 solar lights verified under the assessment had IDs given to each light and all these solar lights had iron pole, LED bulb with transluminar cover, battery and battery storage and its controller. A total of 15 out of 22 solar lights (68%) had HDFC Bank branding. On exploring, it was found that one solar light pole was accidentally damaged by a vehicle within the village and the company would be installing it very soon as complaint had already been registered. In a nutshell, 21 out of 22 solar lights (95%) were found functional and existing.

*95% of the Solar lights in Agra and 91% in Haridwar districts were found to be functional.*

In Haridwar, 10 villages were covered in two blocks and 101 solar lights were physically verified. All the solar lights were found in place, but 92 of 101 lights (91%) were seen as working. Almost all the solar lights (N=100) had IDs, mounted on the pole, battery available and all its components were found intact. In all, 98 out of 101 solar lights (97%) had HDFC Bank branding.

In addition to the physical verification of solar lights across all the locations in a village, focus groups were conducted with the community members to understand their perspective. Under the assessment, 4 key target groups were contacted and included in the focus groups—(a) men, (b) women, (c) adolescent girls and (d)

adolescent boys. To understand the views of local PRIs and their experience, a gram panchayat representative was also interviewed. The forthcoming discussion presents the findings from various focus groups.

### 3.2 Findings from Discussion with Women

In all, 13 focus groups with women were conducted. The women participants were recruited with the help of local field facilitator at the village level and a common location was identified in the village. All the participants were invited at the common location. All research ethics were adopted such as privacy and confidentiality as well as obtaining informed consent from the participating women. Across both districts, a total of 128 women were covered. Under focus groups, a series of questions were posed to the participants to understand the status of the Solar Lights and other issues related to its experience.

#### 3.2.1 Awareness on Solar Lights

All 128 women covered in all the groups had awareness regarding installation of the solar lights in their villages and of these, 80 (63%) have correct or almost correct information regarding the number of solar lights installed in their areas/villages. Most of the women had information on which locations have been covered under the FDP.

Further, it was enquired on how the probable locations were identified for the solar lights installation. In response to this query, 20 women (16%) were found aware that a meeting was conducted by Ambuja Cement Foundation who works in their village on various components. The objective was to identify the most suitable places for installing solar lights in consultation with local community specially women and men. A good proportion of women (n=60; 47%) reported that suggestions were provided during the meeting which were noted down before the installation of lights. However, 28 women (22%) had no idea about it.



About 95 women (74%) opined that these installed lights are operated by villagers who turn it off in the early morning 6 AM and turn on at 6 PM. About 33 women (26%) said that there is no need to turn it on or off as it operates automatically according to the availability of sunlight.

An enquiry was posed on whether these lights were required or why did you need these lights in your village. All the women positively replied about the need of solar lights and shared the reasons such as “when it gets dark at night, it is inconvenient for us and girls to step outside”. Post installation of solar lights it has become feasible for women and girls to go outside, even they sit outside with neighbours/friends after getting free from their household chores. A quick response to the query clarified that the villagers very much required solar lights were very much required by the villagers.

#### 3.2.2 Discussion on Diverse Components

Impact on before and after scenario of some crucial points related to life of women were discussed such as socializing, safety of women, education, health, environment, gender, theft and robbery and livelihood opportunities were discussed.

##### Socializing

The women were asked to specify the status of socializing between women residents of the villages. Majority of women (70%) did not feel any changes after installation of solar lights. According to them, the locations are not such that could be accessed for the socializing frequently. A few lights have been installed at the crossings within the village and a few in other hamlets and some adjoining to the street connecting to road. Thus, these women did not see any change in terms of socializing among themselves or other women of their villages. However, remaining women mentioned that they enjoy sometime being with friends after completing household chores as these solar lights provide that opportunity of staying and chatting with each other.

Prior to the installation of solar lights, 100 women (78%) opined that they could not step out or freely visit to the places at late evening hours or early night, due to darkness on streets. Now the women can freely move from one place to other.

### Safety

While discussion on status of safety after installation of solar lights revealed that now our area or villages is fully safe and people can proud of this fact. Women feel safe during the evening hours for moving to another location for some work. Similarly, women and children feel safe in moving from one house to other house. Even elderly people can monitor the activities from distance if children are playing just beneath the lights. Earlier, the situation was pathetic as women used to come back to their homes by 7 PM because of fear of darkness. Moreover, women avoided to go out even for a smaller distance.

*“Now we feel safe in moving, in going to friends’ place and chat with them, and even stay for long even if it’s dark outside.”*

- Women Groups

### Education

While discussing effect on education, 85% of women said children can freely play outside their homes during the the evenings. However, 20% of women (N=26) perceived that their children can easily go for tuition classes without any fear as they have lit areas for the commutation. Women from both the districts had the similar opinion. Before the installation of solar lights, children were not allowed to go outside after the sunset as mentioned by 83 women (65%). Around 45 women (36%) had reported that earlier situation was bad as parents were taking precautions on sending their children outside. Now children can go to their turions within the village areas safely and we do not have any fear.

About 14 women (11%) perceived that they have seen children studying under streetlights. Earlier they were either not studying during the evening hours or had painful eyes because of using kerosine lantern. These solar lights had given some relief to them.

### Health and Easy Access for Elderly People

With respect to health situation, all the women accepted that the installation has been very helpful for elderly as well, now they can easily go outside in dark. The prime reasons for mentioning this was that now elder people can see rough streets including pits and holes, streets filled with water or at least they can see rattles and snakes on streets/roads.

### Effect on Gender

To understand the gender effect, participating women were asked to specify the benefits that women have received. Mostly, 93 women (73%) did not see any change among women or any specific benefit that they had observed post installation of solar lights. However, 35 women (27%), though lesser, but had to share that now they go outside to help others during the emergency and whenever required. As a whole, 121 women (95%) did not observe any change on their social status or of women in the village, whereas 7 women had opinion that lights are helpful in mobility of women.

### Theft and Robbery

All 128 women thought that they have observed lesser incidences of theft and robbery due to installation of solar lights on the strret. Usually, thieves attempt lifting of items or snatching items from the local residents in the dark areas, which has gone decreased. Earlier due to unavailability of lights on the street, they would keep hearing about thefts throughout the year because of darkness or lack of streetlights.

### Livelihood Opportunities

One of the great achievement obtained from the discussion that due to solar lights, vegetable sellers and other street vendors or sellers stay for longer hours. This has provided them opportunity for working till late hours and earn more money. Moreover, local residents also feel safe to visit during the late evening hours for buying commodities and other fruits / vegetables, etc. Some of the women had personally experienced the same. When

*“Yes, now street vendors and hawkers remain in the village areas for long duration and at times, he stays at the end of village location, where the solar lights are there.”*

- Women Groups

asked about the scenario before the installation, women shared that earlier vegetable sellers and hawkers used to leave our areas or villages early, due to non-availability of light on streets.

In further discussion about the type of relief they have got due to solar lights, all 128 women reported that solar lights remain switched-on in the entire village areas even when there is a power cut. Among them, 25 women (20%) said some lights get switched off due to lack of or delayed charging. Nearly 53 women (41%) did not have any idea about it.

#### **Maintenance Mechanism**

When asked about who is responsible for the maintenance of solar lights, 103 women (80%) did not have any idea and shared that they believed that maintenance was to be done by those who have given these solar lights. However, 25 women (20%) who were associated with Ambuja Cement Foundation mentioned that the ACF is responsible for maintenance of these solar lights.

With respect to maintenance, ACF-HRDP team explained that ACF has developed a Village Development Committee (VDC) involving local influential people and gram panchayat officials along with men and women. The prime responsibility of VDC is to manage their local issues related to agriculture, development, health and other related aspects. Maintenance of solar lights fall under the VDC purview which means that if any solar light is not functional, VDC needs to be reported who will contact either a vendor or ACF staff for seeking assistance in this regard.

*Women have suggested that number of lights should be increased in the villages as these are very helpful.*

**Summary:** Women have whole-heartedly shared their views on usefulness of the support. Solar lights have offered them opportunity to move around, socialize with people and friends, as well as their families got support.

### **3.3 Findings from Discussion with Men**

The study covered 122 men across 13 villages from both the districts. Under the focus group discussions, the men were posed with a set of questions on various components as discussed with women. The detailed findings have been discussed as follows:

#### **3.3.1 Awareness on Solar Lights**

All 122 men were aware that solar lights were installed in their villages by Ambuja Cement Foundation (ACF). Among all, 118 men (97%) had information regarding the number of solar lights installed in their areas or villages.

On asking about the finalization of location of solar lights, 45 men (37%) were aware that a meeting was conducted by Ambuja Cement Foundation along with their staff to seek responses from the people to identify most suitable places for installing solar lights. About 55 men (45%) confirmed that ACF people noted down the suggestions received from the villagers to finalize the place. However, 22 men (18%) had no idea about the process of identification of solar lights installation.

Regarding the time of operations, 105 participants (86%) thought that the installed lights are operated by villagers who turns it off around 6 AM and turn on at 6 PM. About 17 (14%) said that there is no need to turn it on or off as it operates automatically based on the availability of sunlight.

On asking why these solar lights were needed, all the men from 13 villages positively replied about the need of solar lights and shared the reasons such as *“when it gets dark at night, it is inconvenient for females, elders, children and men to go outside”*. Post installation of solar lights it has become feasible to trace pits, reptiles or any other hinderance on streets.

### 3.3.2 Discussion on Diverse Components

Discussion on how solar lights have shown its impact on different aspects related to lives of local residents were discussed and these aspects included - socializing, safety of women, education, health, environment, gender, theft and robbery and livelihood opportunities.

#### Socializing

Post installation of solar lights, all men except 12 (90%) responded that now the socializing has been enhanced. The men can sit with their friends and acquaintances for late evening hours. This results in better understanding about each other and people get connected not only personally but also with their families. Socializing provides an opportunity to seek help from each other and support if someone is in crisis.

*“People stay for long duration at the common places where men and others join them for chatting after their work hours or after coming back from their work. There is no tension of darkness as the streets have solar lights now.”*

- Men Groups

There were a few people who shared that they got an opportunity to sit around areas where the solar lights have been installed. This helped in obtaining information about their village and even to get news about local, regional and national level politics and social context.

During pre-installation period, this was not possible due to darkness and unavailability of the light and people used to go back to their homes and retire. Post installation, situation has become comfortable as men and others can easily go outside the homes even in late hours without fear.

#### Education

All men had a view that now they have seen girls going for their tuition classes and playing outside with other children till late evenings, which they attributed to solar lights. Some men had a view that family members used to accompany girls when they went out for their tuitions. However, after the installation of solar lights, both boys and girls were able to commute easily. They opined that it is particularly helpful that largely the dark spots have been illuminated through solar lights, which gave a big relief.

#### Health and Easy Access to Elderly People

As such, men did not have much to discuss on health. Some of the men had seen elders who go outside in the evening for a walk. Due to availability of lights on the street, the elders can easily judge their path and walk with ease. No other benefit was informed by the men with respect to health.

#### Energy Saving

On being asked about how solar lights helped households, 107 men (88%) thought that these solar lights are installed in the areas where households do not get direct benefits. However, 17 men (14%) outrightly said there are a few HHs who get the direct light in their households through solar lights installed very close to their houses. In this manner, a very few households could save energy and thus, they probably paid lesser amount of electricity bill as compared to others.

#### Theft and Robbery

Interestingly, all 122 men (100%) claimed that there were lesser incidents of theft after the installation of solar lights whereas there were many such incidences in past due to darkness in the streets and people go to their beds in late evening hours. It can be said that the problems related to theft has been successfully mitigated through solar lights. Moreover, people started sitting outside their homes when they light in and around areas.

#### Livelihoods Opportunities

To understand the situation of livelihood in their villages during the evening hours, men were asked to share their views. All the men had opined that the situation has improved in the villages. More than three-fourths (75%) had opinion that outside vendors and sellers visit their village to sell their items and products. Earlier they used to go back early but now they stay for a longer duration for selling items and vendors who deal in food, Maggi and tea stalls. Solar lights have provided them dual benefits—(i) safe commute while going back and more number of hours to expand business or sell products/items for long duration.

### Maintenance Mechanism

More than half (51%) men clearly mentioned that there is no provision of maintenance at the village level. Ambuja Cement Foundation (ACF) has responsibility of maintenance of these solar lights. However, 60 men (49%) were aware of the process that there are village leaders in VDC who along with ACF takes care of maintenance of these solar lights. ACF provides its support in maintaining these lights along with other support under FDP.

Men provided a suggestion that number of lights should be increased as there are still some areas within their villages which need street lights so that people access it frequently and freely.

## 3.4 Findings from Discussion with Adolescent Girls

A total of 101 adolescent girls were covered across 13 villages from Agra (Uttar Pradesh) and Haridwar (Uttarakhand). All the adolescent girls were invited to a common location and it was ensured that they respond freely in privacy settings and were informed that their responses would be kept confidential. All of them were posed with a series of questions to get their experiences and views on solar lights installed in their villages under FDP.

### 3.4.1 Awareness on Solar Lights

As expected, all 101 girls possessed awareness regarding installation of the solar lights in their villages and of these 101 girls, only 15 (15%) had correct information regarding the number of solar lights installed in their areas.

#### Process Adopted for Identification of Locations

When asked about the process of identification of locations for the solar lights, only 11 girls (11%) reported that a common meeting was conducted by Ambuja Cement Foundation at the village level and suggestions were sought. However, 90 girls (89%) did not have any idea on how the locations were identified. This was expected as usually adolescents are not involved in the developmental works at the village level.

#### Time of Operations

About 30 girls (30%) mentioned that the installed lights are operated by villagers who turns it off in the early morning 6 AM and turn on at 6 PM. About 50 girls (50%) were aware that these solar lights are automatic based on the availability of Sunlight.

### 3.4.2 Discussion on Diverse Components

Under the assessment, a discussion on how solar lights have shown its impact on different aspects related to lives of adolescent girls were discussed and these aspects were included - socializing, safety of women, education, health, environment, gender, theft and robbery and livelihood opportunities.

#### Socializing

A total of 95 adolescent girls (95%) reported that there is no change or influence of street lights on socializing between people and even between girls in the village. When discussed about the safety of girls and others, all girls responded that people and specifically girls can go outside and come back home late. Some of the girls had shared that they feel safe due to these lights on the streets. When asked about the earlier situation, they shared their concerns that they had to reach home back early evening and solar lights have given some relief.

*Adolescent girls positively claimed about the requirement of solar lights and shared the reasons as "when it gets dark in evening and night, it is inconvenient to go outside". Post installation of solar lights, it has become feasible to trace pits, reptiles or any other hinderance on street.*

#### Education

About 85 girls (84%) responded that 'we were not allowed to go outside' in the late evening, even for tuition classes. Now, these adolescent girls go out without fear as there is light on the streets and also people keep moving on the road due to lights. Some girls responded that though they still came back early, there was now no fear even if we got late as the entire area is lit and they felt safe.



**Health and Easy Access to Elderly People**

After the installation, the mobility of elderly people has been increased. The reasons shared by girls included walking or meeting neighbours without any hinderance has been easy for the senior people now. With the help of solar lights it is easier to take preventive steps such as elders can see reptiles, snakes, water pits, etc. There were only 11 adolescent girls who reported that they have seen children studying under solar street light, these solar lights are very helpful as they provide opportunity to read at convenient time during the early or late evening hours.

**Energy Saving**

There were only 12 girls (12%) who responded that they have seen solar lights installed nearby homes/households and the residents of those houses take benefit of the light, which saves energy and money both. About 89 girls (88%) had thought that these solar lights do not have any direct benefit to the households.

**Gender Effect**

Nearly two out of three girls (64%; n=65) reported that they have not observed any change in the commutation of women and girls between other houses or households, as a result of availability of solar light. About 36 girls (35%) could mention that now people can go to each other's house for helping someone or in case of emergency. The solar lights have boosted the morale that now anyone can move from here to there for some work without a fear of darkness.

**Livelihood Opportunities**

About 92 girls (91%) observed any change in the livelihoods scenario at the village level. They could see and observed that street vendors or other business owners have increased their business after increasing the number of hours of operation. Now, these can sell their products till late evening or night. As such, livelihoods opportunities have gone better after the installation of solar lights.

**Theft and Robbery**

All 101 girls reported that earlier they would keep hearing that people were facing theft and robbery but now a they do not hear such news and cannot say whether it is a result of solar lights. All the girls did not have any idea on the situation related to theft and robbery and have not heard any such case during the past few years.

**Maintenance Mechanism**

As expected, 99 girls (98%) were not aware of the process of maintenance of solar lights as they had no exposure on this process. However, there were 2 girls who had some information that Ambuja Cement Foundation has responsibility of maintenance of these solar lights.

**Majority of girls have shown their satisfaction that they feel safe while commuting locally within their village and solar lights are a big support.**

**3.5 Findings from Discussion with Adolescent Boys**

In all, 116 adolescent boys were covered under focus group discussions in 13 villages. It was a challenging task to include boys and invite them to a common location as either they go to schools or get engaged in tuitions and household-related activities. All these boys were posed with questions to know their views and experience related to solar lights and have been discussed in the following sections.

**3.5.1 Awareness on Solar Lights**

All 116 adolescent boys were aware of installation of the solar lights in their villages. Of these, 114 (98%) had information on the number of solar lights installed.

**Identification of Locations**

About 45 boys (39%) were aware that Ambuja Cement Foundation conducted meeting with people in order to get information on most suitable places for installing solar lights. Total 55 boys (47%) had information that suggestions taken by them for considerations and 22 (19%) had no information on how the locations were selected.

Only 17 boys (15%) were aware that there is no need to turn it on or off as it operates automatically as per the availability of Sunlight.

All 116 boys were in agreement that solar lights were needed as when it gets dark in the evening or at night, usually people do not go outside and stay at home. After installation of solar lights at dark points in the village, the scenario has been changed and people now can go outside fearlessly between two places.

### 3.5.2 Discussion on Diverse Components

Under the assessment, a discussion on how solar lights have shown its impact on different aspects related to lives of adolescent girls were discussed and these aspects included - socializing, safety of women, education, health, environment, gender, theft and robbery and livelihood opportunities.

#### Socializing

Total 95 adolescent boys (82%) had perception that the socializing between people and children has been increased to a good extent whereas prior to these solar lights, mothers or family were not allowing them to step outside during late evenings due to unavailability of light on streets. It was observed that boys interact more with peers and roam around the areas.

#### Safety

About 110 boys (95%) shared that solar lights have increased the safety on streets and roads as people can protect their animals and avert minor accidents due to speedy two wheelers which are very common in rural areas. Earlier, there were more incidences of accidents causing harm to animals due to speedy driving of two-wheelers during the night hours in the darkness. Solar lights largely help people in assessing the cross-overs at the crossing of streets or junction points within the villages.

*“Due to solar lights, accidents due to high speed and stray animals sitting on streets have been averted. Earlier there were more incidences when people rammed into stray animals in the dark areas beside the agricultural lands.”*

#### Education

While discussing on how solar lights impacted their education, majority of them claimed that they can go to tuition classes in late evenings as well without any fear. Moreover, boys were also facing problems during the dark roads and streets. A few of them responded that even girls are safe while commuting to their tuitions or shopping, etc. Now, parents do not create panic if their children are playing or engaging in any educational or social activities in the nearby areas within the village. Earlier, children were not allowed to go to the distant place within the village during the late evening hours.

#### Health and Easy Access to Elder People

Further discussion with boys on health and accessibility clarified that boys did not have much information on health benefits due to solar lights and limited information on how solar lights helped elder people in accessing areas. Few boys supposed that elderly people have better access to walk in the evening hours and meet their peers.

#### Energy Saving

On asking, 15 boys (13%) responded that these solar lights are installed near to a few houses which actually help in saving energy as these households consume lesser electricity. About 101 boys (87%) outrightly informed that there is no individual benefit to households due to these solar lights as their locations are at extremities in the village. About 90 boys (78%) did not see any change in the scenario and solar lights did not help in frequent meetings among people, while 26 boys (22%) thought that now people stays outside their homes and chat just because of solar lights. This means that solar lights have increased the access of people to chat even with distant neighbors.

#### Livelihood Opportunities

When discussed about the change seen with respect to people’s livelihood or other employment related aspect, majority of boys had opinion that it has improved. According to them, there are many people who usually come back to their homes during the late hours and solar lights provides them safety. Few boys had opinion that they have seen vendors now stay for long hours closer to solar lights and villagers get more time to access them to

buy their products and items. Even auto drivers also come and wait for the passengers to drop them at the locations nearby to market places and bus stops.

### Maintenance Mechanism

Only a quarter of boys (25%; n=29) were aware that solar lights are provided by Ambuja Cement Foundation and thus, ACF has the responsibility of maintenance of these solar lights. It was found that these boys were not aware that VDC has the responsibility rather considering that ACF is supporting in many initiatives, solar lights maintenance will be supported by ACF in future. A good proportion of boys (n=87; 75%) had no idea about the maintenance process of solar lights.

## 3.6 Findings from Discussion with Panchayat Officials (PRIs)

To understand the perspective of gram panchayat officials on maintenance of solar lights and their contribution in making solar lights available in the villages, one representative from each of the selected villages was interviewed. Following discussion provides the synthesis of the results obtained from the information shared by PRI members.

### 3.6.1 Awareness on Solar Lights

All 13 panchayat members were aware of installation of the solar lights in their villages and all had information about the number of solar lights supplied by ACF and installed in their GP areas. At the onset, all GP members acknowledged the support received from ACF and HDFC Bank.

It was observed that 10 out of 13 (77%) were aware that meetings were conducted by Ambuja Cement Foundation (ACF) so that solar lights could be placed where people need them. All these 10 GP members also participated in these meetings which were conducted by the field facilitators at the village level.

All the GP members were aware that these solar lights are automatic and they start functioning from the sunset to sunrise. Discussion on the requirement of solar lights revealed that these were utmost required and still more solar lights are needed. According to the GP members, these solar lights have proved their efficacy as rural people are very satisfied that these lights have provided multiple benefits.

### 3.6.2 Discussion on Diverse Components

In their opinion, all GP members claimed that the socializing between people has increased as people spend more time in chatting and enjoying gossips. During summers, these solar lights provide easy spot for chatting and discussions on different topics.

GP members also shared that solar lights are largely placed at crossings, junctions of streets, outskirts and T-points and people can see the spots from the far distance. Hence, accidents have been avoided and stray animals are safe as earlier people met with accidents due to them.

GP officials did not have any idea on how solar lights support people in education. They just said that they were sure that students have benefits as they go outside village and come back lately. They were in agreement that earlier people were hesitant in sending their children outside the village during the evening or night hours.

About 10 out of 13 GP members (77%) thought that people of all ages have started roaming more freely because of illuminated village streets. In one sense, solar lights have paved the path for people to come out and meet their known people within the village areas.

*“Overall, people have benefitted due to solar lights in every possible ways such as during power cuts, these solar lights are a big relief. People enjoy moving out of their homes to a longer distance because the entire area is visible and illuminated because of solar lights.”*

On asking, GP members did not claim that theft and robbery have reduced, rather they shared that they had heard only one or two instances in past. Affirmatively, GP members informed that street vendors have certainly

benefitted with these solar lights as local people can see them from distant places and approach them for buying their items.

Few GP members also informed that there are a few households who have purchased solar lights for their courtyards as well as a few shopkeepers who have installed solar lights in their stores and terrace areas.

When asked about the maintenance of solar lights, GP members expressed their satisfaction that Ambuja Cement Foundation team has formed VDC in the village who will undertake maintenance in collaboration with panchayat members. These GP members expressed their desire to receive continued support from ACF and collaborative work being done by them.

#### **Summary**

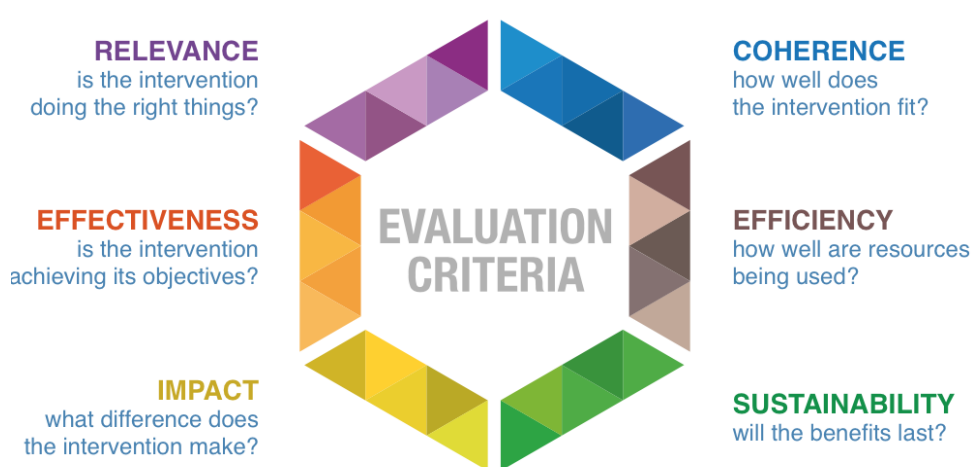
Based on the discussions held with different multiple target groups, it can be said that solar lights have impacted the lives of the rural people. All the target groups have reported suggestive findings as per their experience and perceptions on various components. Solar lights have provided the opportunities and access to people of all ages and gender.

## Chapter 4: Conclusion & Recommendation

This chapter presents the conclusion based on the findings of the study undertaken for the impact assessment of Focussed Development Project of HDFC Bank. The valid conclusion has been drawn and recommendations have been made. The details have been described as follows:

### 4.1 Conclusion

The conclusion derived from the findings have been discussed on the basis of OECD-DAC criteria:



### Relevance

The assessment attempted to gather information from all possible target groups such as women, men and adolescents (boys and girls) who are the primary beneficiaries receiving the benefits and experiencing the changes in the situations after the installation of solar lights. The findings have established the relevance of the support provided under the FDP by HDFC Bank. The natives of villages, the residents, clearly articulated and highlighted the need for solar lights in their areas and how solar lights supported them. The need was also felt by Gram Panchayat members for the rural villagers and acknowledged the support received from HDFC Bank through FDP team.

This proves that the support provided by HDFC Bank was relevant and essential for the people, specifically for women and girls.

### Coherence

HDFC Bank has been supporting ACF in implementing the FDP in the selected villages across Agra and Haridwar and the implementation team felt the need for street lights for the resident children and people and sought support from HDFC Bank for the same. HDFC Bank offered their support and solar lights were installed through FDP team. Findings have shown that in the sampled villages, 95% lights in Agra and 91% in Haridwar were functional and providing benefits to meet the challenges they were facing in past. Women and girls have been the primary beneficiaries who enjoy their socializing with people and got opportunity to stay outside their homes for longer hours during the evening. All the target groups specifically mentioned that the people have multiple benefits. Additionally, there is a maintenance mechanism established for the villagers through VDCs who have

the local representation of residents undertaking plethora of complaints and welfare works. All the VDCs are supported by Gram Panchayats and ACF team staff members.

## Efficiency

Under FDP, the solar lights delivered by the HDFC Bank was meant for the all community members without discrimination in terms of caste, socio-economic status or geographical location within the villages. Thus, all the villagers received benefits in terms of experiencing the support such as solar lights installed at a place where community tap or water tank is available and people access the point for fetching water during the late evening hours. Similarly, a large proportion of resident adults and adolescents who return back from their work or tuition during the evening get benefits of illuminating streets and connecting roads beside the agriculture fields. Villagers could specify that accidents due to high speed two-wheelers and stray animals on the streets have been reduced as all the crossings have solar lights that provide a big relief. Prior to the installation of solar lights, these incidents were terrible.

The support mechanism for maintenance of these solar lights has been laid down on the Village Development Committees (VDCs) that include local active and influential people who are farmers, women from SHGs and teachers and government stakeholders who are residents of the villages. ACF team implementing FDP has created a structure that is responsible of all development works in the village. VDCs do take support from FDP but contribute financially also for the developmental work so that ownership remains there with the VDCs and the population.

## Impact

Assessment team could observe that a large proportion of beneficiaries—women, men, boys and girls, explicitly acknowledged the HDFC Bank support and shared multiple benefits that they are experiencing.

More than half the women mentioned that they enjoy some time being with friends after completing household chores as these solar lights provide that opportunity of staying and chatting with each other. After installation of solar lights, villages are safe and women feel safe during the evening hours in moving from one to another location for some work. Similarly, women and children feel safe in visiting houses within villages. Though low, one in three women shared that now they feel safe to go outside to help others during the emergency or utmost need.

Due to solar lights, vegetable sellers and other street vendors or sellers stay for longer hours that provided them opportunity to earn more money. On the other hand, local residents specially women and girls feel safe to visit them during the late evening hours for buying commodities and other fruits/vegetables.

Overwhelmingly higher proportion of men (90%) felt that socializing has been increased as men now sit with their friends and acquaintance for late evening hours. This resulted in better understanding about each other, and people get connected not only personally, but also with their families. Socializing has provided an opportunity to seek help from each other and support if someone is in crisis.

About 84% of girls shared that 'we were not allowed to go outside' in the late evening, even for tuition classes. Now, these adolescent girls go out with no fear as there is light on the streets and people also keep moving on the streets/road due to solar lights. One in three girls (35%) mentioned that now they can go to each other's house for helping someone or in case of emergency. The solar lights have boosted the morale that now anyone can move from here to there for some work without a fear of darkness.

Four in five adolescent boys (82%) had perception that the socializing between people, adolescents and children has been increased to a good extent. Prior to these solar lights, mothers or family members were not allowing adolescents and children to go outside during late evenings, due to unavailability of light on streets.

About 10 out of 13 GP members (77%) thought that people of all ages have started roaming here and there because of illuminated village streets. People go and meeting shopkeeper friends and enjoy gossiping. In one

sense, solar lights have paved the path for people to come out and meet their known people within the village areas.

GP members also shared that solar lights are largely placed at crossings, junctions of streets, outskirts and T-points and people can see the spots from the far distance. Hence, accidents have been avoided and stray animals are safe as earlier people met with accidents due to them.

The above findings demonstrate that the solar lights have impacted the lives of the local residents in one or other ways proving HDFC Bank support under FDP was impactful.

## Sustainability

Information on sustainability of support received by the villages suggests that the VDCs available in the villages have the ownership of undertaking their development related works after receiving the support. These VDCs have been formed under HRDP implemented by ACF and VDCs have been oriented and sensitized by the HRDP team at both the locations. All the VDCs have representation of local women SHG members and backed by Gram Panchayats that makes the true combination of stakeholders who would be available in future for the maintenance of solar lights.

### 4.2 Recommendation

Following recommendations are being made based on the findings of the assessment:

- All the target groups shared that the support was outstandingly helpful but still more solar lights are required within their villages. They felt the support relevant and impactful but need more lights to cover all habitats fully.
- HDFC Bank must sensitize the adolescent boys and girls in the schools to generate awareness that they must sensitize people and their family members in maintaining solar lights and keep vigil that they function properly.
- Gram Panchayats should be made fully responsible for the maintenance of solar lights to take the ownership.

## Annexure

**Table 1: Data from Checklist Used for Physical Verification of Solar Lights**

District and Villages	installed	Checked	Functional	Light ID	Light Pole	Solar Panel	Light Covered	LED Bulb	Battery	Battery Storage	Battery Charger Controller	Automatic	HDFC Bank Logo
<b>AGRA</b>													
Murawal	9	9	7	8	8	8	8	8	8	8	8	8	6
Nagla Haji	11	11	11	11	11	11	11	11	11	11	11	11	8
Swara	3	3	3	3	3	3	3	3	3	3	3	3	1
<b>HARIDWAR</b>													
Dadli	10	10	10	10	10	10	10	10	10	10	10	10	10
Dhanwari	10	10	7	10	10	10	10	10	10	10	10	9	10
Karaundi	10	10	8	9	9	9	9	9	9	9	9	9	9
Shyampur	10	10	10	10	10	10	10	10	10	10	10	10	10
Mundlana	10	10	10	10	10	10	10	10	10	10	10	10	9
Banarasi urf budel	10	10	9	10	10	10	10	10	10	10	10	10	10
Akbarpur	10	10	10	10	10	10	10	10	10	10	10	10	10
Khatka	10	10	9	10	10	10	10	10	10	10	10	9	10
Kangri	10	10	8	10	10	10	10	10	10	10	10	10	10
Gadh rauna	11	11	11	11	11	11	11	11	11	11	11	11	10
	<b>124</b>	<b>124</b>	<b>113</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>121</b>	<b>113</b>

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