# Table of Contents

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>Summary of the Customer feedback survey</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>Methodology of the survey</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Key findings</td>
<td>6,7</td>
</tr>
<tr>
<td>5.</td>
<td>Detailed findings</td>
<td>8-15</td>
</tr>
<tr>
<td>6.</td>
<td>Specific product related feedback</td>
<td>16</td>
</tr>
<tr>
<td>7.</td>
<td>Immediate areas of improvement</td>
<td>17</td>
</tr>
<tr>
<td>8.</td>
<td>Way forward</td>
<td>18</td>
</tr>
</tbody>
</table>
Introduction

Himalayan Rocket Stove (HRS) is a social enterprise focused on developing highly efficiency wood biomass burning stove combustion technology to India for production, distribution and retail sales throughout Himalayas including Nepal, Bhutan and regions with cold climates.

HRS has innovated the open source “rocket stove” concept and adapted it to the low format required for social adaptability in the Himalayas. The Eco stove range caters to all the heating and cooking needs of the Himalayan communities with an ad on facility of hot water. The ability to cook on the stoves, as well as heat a large room, is key to the cultural context of the Himalayas. We have designed our range of stoves to be modular, allowing for increased functionality to be added to the basic units over time.

HRS address three key issues facing the people and environment of the Himalayas, namely being deforestation, women’s health and air pollution. HRS strive to improve the lives of millions of people whose lives depend on heating for warmth, food and survival through the long cold winters of the Himalayas, by minimising:

- Fuel load
- Pollution (including toxins and black carbon)
- Deforestation
- Environmental degradation
Executive Summary

Himalayan Rocket Stove is currently working the Himalayan region with customers spread across the Himalayan terrain including Nepal and Bhutan. In three years of operation, HRS has been able to provide its Eco range to more than 2000 households in the Himalayan belt.

HRS has been continuously innovating its designs based on the valuable feedback received from the customer. Adapting to the needs of the customers and understanding their perspective has been a great learning. The feedback has been surveyed by our team internally and is done with complete authenticity to understand the customer experience in the early stage of our business. This report is an attempt to put together various feedback, suggestions, testimonials received from 250 random surveys conducted in 2019-20 from various regions.

The report also highlights the upcoming innovations, accessories, overall sales performance with a focus on extended distribution network.

The customer feedback survey is not inclusive in terms of quantifiable data on firewood usage, reduction in fuel consumption, but definitely puts some light on the aspects of customer satisfaction, reason of buying the HRS unit etc. This also takes in account the valuable feedback received from the customers which helps HRS to improve and innovate further.
**Survey Methodology**

**Target Market:** HRS is currently operating in Himalayan states of India, Nepal and Bhutan. The majority of sales are happening through our key locations in Manali, Leh, Kargil and from the warehouse in Parwanoo, Himachal Pradesh and through partnering with key people serving as local distribution points in towns throughout the Himalayas.

We have a growing list of partner distribution agents who purchase stock based on our agreed terms and condition and resell to their customers directly. Customers have been randomly selected from outlet sales, distributor sales, online and direct sales from various demographics.

**Customer selection criteria:**
The customers have been selected from various profiles ranging from farm owners, Government employees, private sector employees, Hotel/guest house owners, hospitality sector and individual business owners.
- Majority of customers are users of Eco 1 stove as it represents 70% of our existing customers whereas we have collated responses from Eco 2 and Eco 3 customers as well.
- Equal participation has been ensured from various demographics to get a diverse range of feedback and suggestions.
- 240 customers have have been identified from a pool of customers with continued usage of more than three months.

**Survey Questionnaire:** Surveys ([Google Form](#)) were conducted telephonically and responses were recorded on google sheets. The nature of survey is internal in order to understand customer issues pertaining to the HRS and suggestions on improvements.

**Data collection:** Various data points were captured in terms of customer profile, fuel usage pattern, firewood reduction, smoke reduction, satisfaction with the combustion heaters etc.
Summary of the findings

- Majority of HRS customers are either Business owners (36.6%) and Government employees (24.6%). Farm owners, hotel owners and private sector employees make up the rest of the customer profile as HRS products cater to the middle income segment of India.

- Maximum number of units sold are Eco 1 (71.2%) as a standard unit for a family in the Himalayas whereas Eco 2 (21.8%) and Eco 3 (7%) cater to customers who are more interested in the heating aspect of the stove for a larger area.

- HRS enjoys high customer satisfaction as the average customer satisfaction ratio is 8.44 on a scale of 1 to 10.

- Over 70% of HRS customers have observed considerable reduction in visible smoke as compared to their previous heating device.

- The average usage of HRS through a season is approximately 120 days (3-4 months). There are regions like Ladakh, Sikkim and Bhutan where HRS combustion heaters are used for at least 6 months a year.

- 90.2% customers feel that the heating capacity of HRS is satisfactory and as per brand promise.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Insight</th>
<th>Numerical finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Business owners</td>
<td>36.6%</td>
</tr>
<tr>
<td>1.2</td>
<td>Government Employees</td>
<td>24.6%</td>
</tr>
<tr>
<td>2.1</td>
<td>Eco 1</td>
<td>71.2%</td>
</tr>
<tr>
<td>2.2</td>
<td>Eco 2</td>
<td>21.8%</td>
</tr>
<tr>
<td>2.3</td>
<td>Eco 3</td>
<td>7%</td>
</tr>
<tr>
<td>3</td>
<td>Avg. Overall Customer Satisfaction score on a scale of 1-10</td>
<td>8.44</td>
</tr>
<tr>
<td>4</td>
<td>Percentage of customers who have experienced reduction in visible smoke</td>
<td>70% are happy</td>
</tr>
<tr>
<td>5</td>
<td>Average seasonal usage of HRS stove</td>
<td>120 days</td>
</tr>
<tr>
<td>6</td>
<td>Avg. feedback on satisfaction with heating capacity of the stove</td>
<td>90.2% are satisfied</td>
</tr>
</tbody>
</table>
Summary of the findings

• Major factors for buying the stove is ecological aspect and effectiveness of the stove. Customers also bought the stove for attractive looks and fuel cost reduction.

• Customers has shown great interest in add on accessories like Glass door, SS Water _hamaam_ system and pellet feeder/chillet basket as alternative biomass fuel.

• Customers emphasized on improving the service quality, local support and bring in a cost effective version of HRS which makes it more viable for lower income segment with flexible payment schemes

• Social media has played a big role in reaching out to customers and word of mouth has resulted into considerable sales.

[Image of a person sitting next to a stove]
Detailed Findings

Customer Profile

Majority of HRS customers are either Business owners (36.6%) and Government employees (24.6%). Farm owners, hotel owners and private sector employees makes up the rest of the customer profile as HRS products cater to the middle income segment of India.

Being an aspirational product among the people of Himalayas, HRS currently cater to the people with purchasing capacity with one time payment option. Customers has been looking for flexible payment option.

There is a new pool of customers who have placed bulk orders like JNV School Lari, Roots Country School Baghi, State Council of Science and Tech. Meghalaya. Few Government departments has shown interest in bulk purchase for Mid day meal centers, Community halls etc.

Graph 1: general profile of HRS customers
Type of Stove installed

- Eco1 Rocket Stove, which is aimed at the typical Himalayan household, with low cooking position and traditional size and shape is the most selling product with a share of **71.2%**.
- Eco 2 - **21.8%** &
- Eco 3 - **7%** caters to customers who are more interested in heating up a larger area.

Hence Eco 2 and Eco 3 customers fall in the premium segment. Additionally, majority of customers who opt for bigger models are only concerned with the heating aspect of the combustion heater and not much inclined towards using HRS for cooking.

Medium size Eco 2 stove has been gaining more acceptance among customers due to its size, effectiveness and ease of usage. The sale numbers of Eco 2 has considerably improved from 2018-19.

Graph 2: Segregation of HRS units sold among customers 2019-20
Customer Satisfaction

The average customer satisfaction rate is 8.44 on a scale of 1 to 10. This implies that majority of HRS customers are highly satisfied with the overall performance of the combustion heaters.

HRS approach in reaching out to Customers:

• HRS as a product only appeals to a customer when he/she actually see it in operation. Many customers told us that they have seen it at their relative’s house, at some cafe and reached out to this. Majority of queries received are from Word of mouth.
• Social media has also played a big role in reaching out to the customers. and through an extensive outreach on social media through Facebook. Active responses, live demo through video calling has worked out well for customers who has not seen HRS before in order to make up their mind to place an order. Troubleshooting has been considerably improved by responding to customer issues telephonically and household visits wherever possible.
• HRS has been displayed and demonstrated at the Annual Tourism Festival in Mandi, Lavi Fair for creating consumer awareness. Through these demonstrations, HRS has been able to reach out to far off communities who do not access to media. Road side demo, showcasing in Villages and Market area has been a good marketing strategy.
• Product demonstrations in various demographics helped in identifying the needs of the consumer. For. eg- When Eco 1 was demonstrated in the villages of Meghalaya, people responded by saying that it is too big for their households and a smaller version would be more appropriate.

The customer satisfaction is evaluated in terms of product quality, service quality, ease of usage, reduction in firewood, customer service etc.
**Net Promoter Score:** Net Promoter Score (NPS) measures the loyalty that exists between company and customers. Simply put, any positive score means that you have more advocates (promoters) willing to recommend you critics (detractors). -100 means that every one of your customers is a detractor. On the other end of the spectrum, +100 means that everybody is a promoter. NPS is an indication of your company’s health and whether it’s going north or south.

Net Promoter Score = (No. of Promoters - No. of detractors) * 100 / Total of number of respondents

No of detractors (rating below 6) = 37
No of Promoters (rating of 9 and 10) = 102

\[
\text{Net promoter Score} = \frac{102 - 37}{243} = +26.7
\]

Given the NPS range of -100 to +100, a “positive” score or NPS above 0 is considered “good”, +50 is “Excellent,” and above 70 is considered “world class.” Based on global NPS standards, any score above 0 would be considered “good.” This simply means that the majority of your customer base is more loyal.

![Graph 3: Customer satisfaction score](image-url)
Smoke reduction aspect
There has been a considerable reduction in visible smoke (71.4%) as reported by the customers whereas 21.8% customers feel that there has only been a small reduction in smoke. Customers reported that there is smoke initially during the lighting process, but once the stove gets fired up and running, there is considerable amount of reduction in smoke.

“Not satisfied with wood saving. There is less smoke though during use.”

Reduction in Firewood
The reduction in firewood could not be quantified since a baseline data is not available on firewood usage in Traditional tandoor used by the customers prior to switching to HRS stoves. Customers in Ladakh confirmed reduction in firewood considerably whereas for customers from other regions we need to further clarify a methodology for measuring reductions due to mix of variables that confuse the data, such as firewood quality and overfeeding issues.

Some direct customer feedback

“very happy with HRS, faced a little problem of smoke during lighting, but once in motion, it works very well. Wood usage has also decreased.”

Graph 4: Depiction of visible smoke reduction as reported by the customers
Reasons to buy Himalayan Rocket Stove

- Major reason for buying the stove is ecological aspect (24.1%) and effectiveness of the stove pertaining to wood savings (14%).
- Customers also bought the stove for attractive looks and fuel cost reduction.
- Majority of customers who enquired about the stove were already aware of the functioning or have seen it working.

Additional reasons
- The design and looks of HRS units is also a major factor for sales as customers find the operation hassle free. Various add-on modules and aesthetic features, such as glass door option add more value to the product.

HRS as a product is more of an aspirational product for Himalayan communities

Some direct customer feedback

“great product, the base got too hot and not suitable for wooden flooring. Otherwise great performance.”

“bought this stove to reduce smoke and he is happy with the result”

What is the main reason for you to buy an HRS stove?
237 responses

Graph 5: Reason for buying HRS as reported by the customers
Regional Distribution of HRS customers
The sales territory of Himalayan Rocket Stove is expanding across the Himalayas. Feedback surveys has been conducted from company owned outlet regions and distributor regions to understand the customer requirements across demography.

Major highlights:
- HRS has set up distributor agents in Nepal and Bhutan. There are more than 100 satisfied customers in Bhutan and HRS units are been sent to faraway places in Nepal such as Everest base camp region.
- Certain bulk order from Hotel owners and Govt. agencies have opened a window for institutional orders. Few orders include 10 Eco 1 from Lari in Spiti, Order from the Govt. of Meghalaya, order from Uley Resort in Leh, bulk order in Uttrakhand etc.
- Apart from existing distributors in Himachal Pradesh, new distributors have been set up in Siliguri and Sikkim.
- Customers surveys has been conducted from various regions uniformly according to the sales numbers in the area. The table below shows the regional distribution of surveys conducted:

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manali region</td>
<td>50</td>
</tr>
<tr>
<td>Ladakh</td>
<td>60</td>
</tr>
<tr>
<td>Himachal Pradesh (Jubbal, Rampur, Rohru, Kinnaur, Dharamshala)</td>
<td>102</td>
</tr>
<tr>
<td>Uttrakhand</td>
<td>8</td>
</tr>
<tr>
<td>North-east and miscellaneous</td>
<td>23</td>
</tr>
</tbody>
</table>

Table 1: Geographical representation of respondent geography
Specific feedback from HRS customers:

Lots of constructive feedback came in from the customers and there were also a number of customers who faced problems in operating the HRS effectively. Traditional Bukhari has been a part of Himalayan households from centuries. In retrospect, technical aspect of HRS sometime makes it difficult for customers to get used to the proper technique and usage. It takes some time to adapt to HRS, and if the customer is guided properly in installation and lighting, he/she will use it for a long time.

Given below is some specific feedback received from the customers:

- “It would be nice if concentric rings of different sizes can be given on top for added versatility. Saw a similar contraption in Bumthang, Bhutan”
- “happy with stove operation. Do not find HRS convenient for roti making. Takes some time to heat up initially but works very well once it heats up.”
- “We use dung cakes and they produce lot of ash and ash spills during cleaning up, suggest to have an oven on top to keep food warm. overall great product”
- “good in performance and less firewood consumption. Can the size of wood feeder be made a bit large? also ash spills while taking it out”
- “Works well, A copper hammam system should be there”
- “There should be an attachment in the stove itself for ash collection”
- “HRS should have proper service and installation team to solve customer issues”
Specific Customer feedback

*There are number of customers who lacks knowledge of initial lighting and installation procedures which resulted in initial smoke during lighting. A total of 108 customer complaints were registered and rectified in 2019-20.*

**Lighting issue:** This is the most common issue that the customers are facing while lighting up the stove. The lighting process is technical process to a certain extent and a procedure has to be followed for proper lighting. Additionally majority of lighting issues have come from Eco 1 customers. In order to rectify this issue, instructional lighting videos have been shared. This now needs to be standardized as post sales process.

*36 complaints of lighting issue were registered in 2019-20.*

**Back smoke issue:** Few customers have complained of back smoke which was mostly due to improper installation configuration. This was rectified by the HRS team members through a video call. Sometimes the back smoke comes due to bad weather and positioning of the wind cap. Customer visits were also conducted in Manali and Leh to troubleshoot the issue.

*25 customers complained of this problem in 2019-20.*

**Price points:** 10 customers out of the surveyed 243 participants reported that the pricing of HRS products is on an upper side and out of reach to a number of people from lower middle income segment. Additionally, while buying an HRS unit, pipe kits, accessories, transportation adds up to the cost considerably which makes pricing more out of bounds. However, the stove remains to be aspirational purchase for interested customers.

**Finishing/missing parts:** A few cases of missing parts, shattered glasses in glass doors, tool kit were reported which were eventually rectified by the team. A strict quality control measure at place has helped to reduce such events at the customer end. A few customers also complained of the rust and felt that the product is not finished for price they are paying.

**Heating capacity:** A meagre amount (5%) customers felt that the heating capacity is not up to mark which is mostly due to improper choice of HRS unit and area of installation.
Immediate areas of improvement

The customer feedback survey is not inclusive in terms of quantifiable data on firewood usage, reduction in fuel consumption, but definitely puts some light on aspects of customer satisfaction, reason of buying the HRS unit etc. This also takes in account the valuable feedback received from the customers which HRS will take in account to improve and innovate further. Some of the major points that came out from the customers are listed below:

• **Product Quality**: product quality needs more improvement with stringent quality checks at place. Long distance transportation also leads to damage at times which causes dissatisfaction among the customer. Accessories should be properly tested before sending out to the customer. Quality assurance framework with a range of choice for the customers is the way forward.

• **Service Quality**: improvement in service quality. Last mile delivery and service remains a challenge since the Himalayan terrain is difficult to operate. Additionally, there is no mechanism to track the shipment and expected delivery time. Customer rely on remote support through phone where there is an absence of distributor/retailers.

• **Design and Features**: Design innovation has been at the core of HRS. We have been able to deliver the products and accessories as per customer aspirations. Moving forward, new products needs to be extensively tested on field before sales so that the customer is able to make their choice as per their requirement.

• **User Financing**: Consumer Financing is very crucial for HRS as a way forward. It opens up a window for people who do not have the ability to pay whole amount upfront. In-house EMI scheme gathered good interest. If implemented at the right time in collaboration with a financial institution, it can pump up the sales numbers drastically.

• **Pricing**: The existing customer base do not have affordability issues, but a number of people who take interest did not end up buying because of the rigid price points and unavailability of offers.
Way Forward based on customer feedback

- It's very important for us to strengthen our distributor network and innovate our distribution model while exploring new markets. North East India, Nepal and Kashmir are yet to be explored.

- Invest more efforts in getting the customer data and user data by putting in some monitoring mechanism at place. Usage data from the users will help to tap the Carbon finance and mapping the emission reduction achieved. We should have a process in place together the baseline data from the customers.

- Fuel innovation is the key at the moment for our customers to reduce their dependence on firewood. Alternate biomass fuel such as Briquette and chillets should be provided to the customers through HRS owned and distributor outlets. Finding right kind of fuel is the need of hour, testing it properly and work on a strategy to make it available for the customers at a competitive price with Firewood.

- The Govt. is not willing to do subsidies for cook stove sector as most of the focus is on the Ujwala scheme, therefore getting into the Govt. subsidies would be difficult. We will have to target CSR’s, NGO’s and other institutions for bulk orders and streamline our supply chain.

- Customer financing will reduce the burden of one time payment for the customer, and customer is more likely to buy when he has a flexible payment option to choose from.

- We need to spend more on R&D, customer feedback, customer awareness (as most of the customer issues are arising from lack of knowledge) and market strategy.

- HRS Accessories: Stainless Steel decoration strips have been made standard and the glass door has undergone design changes. Response to both of these has been very positive. The hot water “hamam” is strongly desired by our existing customers as a combo offer with HRS unit.
Name of the organisation:
Himalayan Rocket Stove Private Limited

Registered office address:
SCO 181-182 Sector 8C,
Chandigarh 160009

Email: sales@himalayanrocketstove.com ;
Mob: +919805126096/8894924343

Website: https://himalayanrocketstove.com/

All images used in the report are owned by HRS