Impact assessment of COVID-19 project

Pernod Ricard India Private Limited

June 2024

Price Waterhouse Chartered Accountants LLP

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7. PW have not acted in the capacity of the client management; client had identified qualified personnel responsible for overseeing the project. We have not assigned responsibilities to client personnel. It was the responsibility of the client to identify the core member team who assisted us in this assignment. We have not acted in a supervisory capacity over members of client.
8. Our scope of work, including any advice / assistance, was limited to the scope of services specifically defined in the Letter. We were not responsible for the implementation of our recommendations.
9. We are responsible only for providing options for consideration of client and not make any management decision for selection, prioritization, and implementation of the same.
10. Our work was limited to the samples/specific procedures described in this report and were based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents. Accordingly, changes in circumstances/samples/ procedures or information available could affect the findings outlined in this report.

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13. The report prepared by PW is based upon the (a) information/ documents provided by Pernod Ricard India Private Limited and (b) data collected during the field visit to the project locations by the PW team. PW performed and prepared the information at the client's direction and exclusively for the client's sole benefit and use pursuant to its client agreement. Our report is based on the completeness and accuracy of the above-stated facts and assumptions, which if not entirely complete or accurate, should be communicated to us immediately, as the inaccuracy or incompleteness could have a material impact on our conclusions.

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List of Acronyms

Acronyms	Full Form
AMC	Annual Maintenance Contract
CSR	Corporate Social Responsibility
ER	Emergency Room
ICU	Intensive Care Unit
IDI	In-Depth Interviews
INR	Indian Rupee
IRECS	Inclusiveness, Relevance, Effectiveness, Convergence and Sustainability
KII	Key Informant Interviews
LOE	Letter of Engagement
LPM	Litres Per Minute
MoU	Memorandum of Understanding
PGIMS	Post Graduate Institute of Medicine
PRI	Pernod Ricard India
PRIF	Pernod Ricard India Foundation
PRIPL	Pernod Ricard India Private Limited
PSA	Pressure Swing Absorption
PW	Price Waterhouse Chartered Accountants LLP
SpO2	Saturation of Peripheral Oxygen

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Executive Summary

Pernod Ricard India Private Limited (PRIPL) has undertaken various initiatives for communities within and around their operational areas. PRIPL commissioned PW to conduct an **impact assessment of their COVID-19' CSR project to evaluate its effects on the supported provided to PGIMS, Rohtak**.

The assessment involved understanding the project implementation plan and reviewing Key Performance Indicators (KPIs) established by management to measure project outputs, outcomes, and impact. The evaluation framework, known as the Inclusiveness, Relevance, Efficiency, Convergence, and Sustainability (IRECS) framework, was agreed upon with management. The objective of the study was to assess the outcomes and impact created on the stakeholders covered under the project and provide recommendation on the project performance for Management's evaluation. Based on the nature of project, a qualitative methodology method was adopted. Interactions were planned for the project based on the study methodology after mapping the key stakeholders.

Due to the scarcity of oxygen supply in wave one and the increased demand during the wave two, hospital like PGIMS were facing a medical emergency. The unit would play a vital role in emergency preparedness (preparing for another wave of COVID). As part of PGIMS Rohtak's efforts to mitigate the adverse effects of the COVID-19 pandemic (second wave) and meet the challenge of oxygen supply-demand (during a potential third wave), the hospital approached Pernod Ricard India Private Limited (PRIPL) to facilitate the setup of a **Pressure Swing Absorption (PSA) oxygen plant**.

Key findings:

- The PSA unit was solely responsible in **supplying ~6,000 patients with medical grade oxygen**.
- The PSA unit was effective in **reducing operational costs** by decreasing expenditure on transportation and storage.
- The PSA unit **reduced the risks** associated with **handling and storing cryogenic liquids** (Liquid oxygen), thus contributing to a safer working environment.
- However, **160 days post installation**, the unit was supplying oxygen at an SpO2 between 88% - 92%, which **was below the required levels** that needs to be supplied to patients.
- However, as noted by the hospital staff, after a certain period of time (~160 days post installation) the unit was supplying oxygen at an SpO2 between **88% - 92%,** which was below the required levels that needs to be supplied to patients. To counter the decrease in SpO2 the oxygen supply to the **wards was supplemented with liquid oxygen along** with the PSA unit.

Key Recommendations:

Considering the nature of support provided by PRIPL (response to a disaster situation), not much assessment on the modalities could be worked out as immediate response was of prime importance during the period. Hence, communication on roles and responsibilities of each partner involved with any such future projects with proper documentation of the same should be conveyed at the project conception stage for. It is recommended that such infrastructure projects should include a contract with responsible parties, which would specify the roles and responsibilities, including AMC, monitoring and cost implications. This would avoid instances where effective utilisation of such support is restricted leading to challenges in sustainability of the programme.

A detailed analysis of the assessed impact of all the interventions can be found in the Detailed findings and recommendations section, and recommendations can be found in the section titled Recommendations in the report.

1. Introduction and background

1.1. About PRIPL

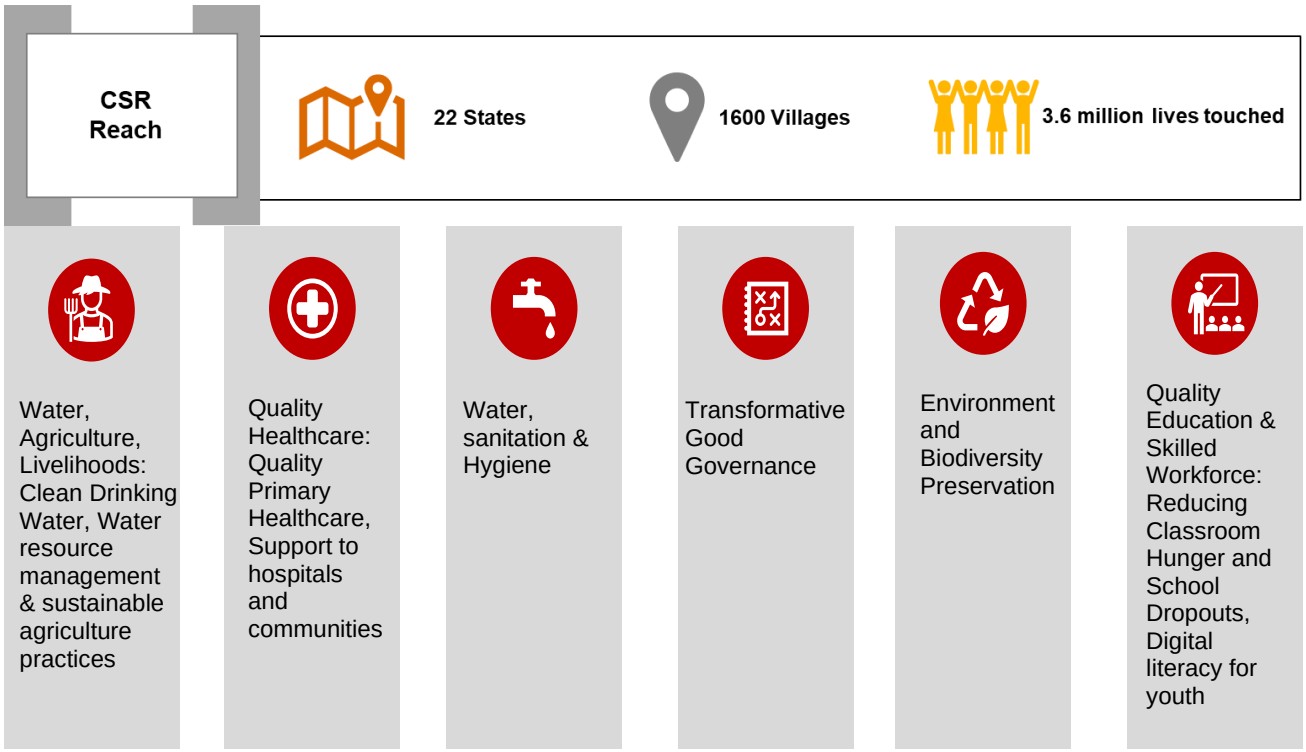
Pernod Ricard India Private Limited (PRIPL) is a leading multinational alcohol beverage company that delivers quality products to its consumers across the country. As an industry leader, it is known for promoting safe and responsible alcohol consumption. To drive its commitment to the cause of Corporate Social Responsibility near its operations and beyond, in areas of special needs, Pernod Ricard India Foundation (PRIF) was formed as a Section 8 Company incorporated under the Companies Act, 2013. PRIPL aims to drive sustainable solutions to address social, economic & environment sustainability while partnering in India's development initiatives.

Through the CSR initiatives, PRIPL aims to address social, economic, and environment sustainability by:

- Delivering on corporate social commitments
- Partnering in India's development initiatives
- Aligning CSR initiatives more closely with our core business

Over the years, the CSR Foundation of PRIPL has worked across several themes as illustrated in the figure. With a strong Plant-based focused approach, PRIPL is actively working with more than 3.6 million people from communities near 22 Plant locations across 22 states in India through 285 programmes[1]. All these programmes are designed in a manner that they can contribute towards the SDGs and national priorities[2].

Figure 1: CSR reach and Key Focus Areas



1.2. About the project

One of the major challenges during the COVID-19 pandemic was the shortage of oxygen and efficient oxygen delivery mechanisms in the healthcare facilities[3]. **Oxygen was the key** therapeutic agent for medium to severe cases of COVID-19, helping to improve oxygen (O_2) levels in the blood circulation of patients suffering from respiratory distress and/or hypoxia (general term used for oxygen shortage). For a normal healthy individual,

[1] Pernod Ricard India Foundation website - www.prifoundation.com
[2] Pernod Ricard India website - https://www.pernod-ricard.com/en/locations/india
[3] Article published in the India Journal of Community Medicine - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10112770/

the arterial oxygen (oxygen level measure from artery) saturation (SpO_2 level measure using pulse oximetry[4]) is in the range off 95-100%[5]. According to the Ministry of Health and Family Welfare and the World Health Organisation, if O_2 saturation is 94% or lower, the patient is hypoxic and needs to be treated immediately (a saturation of less than 90% is considered to be a clinical emergency)[6]. During the pandemic (peak wave 1 and wave 2), most **hospitals in India faced an acute shortage of oxygen due to an increase in demand for COVID patients**. To counter this shortage hospitals and other health care centres started to source their oxygen (liquid oxygen, cylinders, generator units) through the support of various government/ non-government/ private organisations.

Post Graduate Institute of Medicine (PGIMS) Rohtak also faced shortage of oxygen supply during wave 2 of the pandemic. Due to the scarcity of oxygen supply in wave one and the increased demand during the wave two, hospital like PGIMS were facing a medical emergency. The unit would play a vital role in emergency preparedness (preparing for another wave of COVID). As part of PGIMS Rohtak's efforts to mitigate the adverse effects of the COVID-19 pandemic (second wave) and meet the challenge of oxygen supply-demand (during a potential third wave), the hospital approached Pernod Ricard India Private Limited (PRIPL) to facilitate the setup of a **Pressure Swing Absorption (PSA) oxygen plant**[7].

As noted in the press release[8] shared by PRIPL, the hospital had identified approximately five hundred beds for the treatment of COVID-19 patients. However, due to the sharp increase of oxygen requirement for patients with COVID 19 (in wave 2), there was need for additional oxygen supply. This PSA unit was supplied by *Canyon Infrastructures Private Limited (identified by PGIMS)* and manufactured by *Landsky Engineers Private Limited (Identified by Canyon).* During our discussion with PRIPL it was noted that they were responsible for making a one-time CSR contribution for the PSA unit and then handing over the asset to PGIMS.

Based on interaction with the PGIMS technician, it was noted that this unit utilizes pressure swing absorption technology, which is a technique used to separate gas species from a mixture of gases. In this case the PSA unit separates O_2 from Nitrogen. It operates by varying the pressure to selectively adsorb and desorb gas components. Due to its high flow rate of **1,000 LPM (Litres Per Minute)**, this unit is suitable for large medical institutions/ hospitals like PGIMS Rohtak. The unit would provide safe low-pressure **medical grade oxygen** (**93%-95% SpO_2**). The unit consists of the main PSA system along with external cylinder sources and housing structure constructed by PGIMS to accommodate the unit, as seen in figure 2 provided below.

1.3. About the implementing agency[9]

PGIMS Rohtak, is a major institute for Medical Education and Research and a tertiary care hospital, catering to the people of Haryana, Delhi, Punjab, and Rajasthan. The college is well equipped (spread over 350 acres of land) with the following facilities; (1) Medical college, (2) 1597 beds, (3) a super speciality centre, (4) Radiology services, and (5) Dental services[10]. The PSA unit was provided to PGIMS as part of CSR support during the COVID-19 pandemic period.

Canyon Infrastructures Private Limited, is a non-govt. company, incorporated on 25 October 2005. It engages in civil engineering projects (Building/ construction works). In this instance Canyon was the primary vendor (introduced by PGIMS to PRIPL) for procurement of the PSA oxygen unit that was installed in PGIMS Rohtak[11]. PRIPL made the payment to Canyon for procurement of the PSA unit.

Landsky Engineers Private Limited, is a vendor under the project and are authorised associates and manufacturers for various industrial engineering equipment's and solar production in India. They provide industrial and healthcare infra solutions to industries and private corporations across India[12]. Landsky were responsible for building the PSA oxygen unit along with installation of the unit in PGIMS Rohtak.

[4] A method to measure oxygen level in blood (done by measuring the amount of Hb that can carry O_2
[5] WHO training manual on pulse oximetry - https://cdn.who.int/media/docs/default-source/patient-safety/pulse-oximetry/who-ps-pulse-oxymetry-training-manual-en.pdf?sfvrsn=322cb7ae_6
[6] Press release by Ministry of Health and Family Welfare - https://pib.gov.in/PressReleasePage.aspx?PRID=1715273#:~:text=Oxygen%20Concentrators%20during%20COVID%2D19%3A%20What%20We%20Need%20to%20Know&text=Here's%20a%20quick%20lowdown%20on,to%20drop%20to%20dangerous%20levels.
[7] As per documentation provided by Pernod Ricard India Private Limited
[8] As per press release statement shared by PRIPL.
[9] As taken from Bala Vikas website - https://www.balavikasa.org/Organization
[10] About PGIMS Rohtak – https://www.pgimsrohtak.ac.in/intro.htm
[11] As per information shared by Pernod Ricard India Private Limited
[12] About Landsky Engineers Private Limited – https://landsky-group.com/

2. Approach and methodology

2.1. Scope of work

Pernod Ricard India Private Limited (PRIPL) engaged PW to carry out the impact assessment of their CSR projects with a purpose to evaluate the impact created on the community during the project period of 2019 to 2023. The scope of work includes reviewing the Key performance indicators (KPIs) as defined by the Management under the framework for implementing the CSR project for the outputs, outcomes, and impact of the Project. Inclusiveness, Relevance, Efficiency, Convergence, and Sustainability framework (the 'IRECS') (defined later) as agreed with the Management was used.

The assessment was undertaken using the qualitative method to understand the interventions undertaken under its CSR initiative in mutual discussion with PRIPL. As per the engagement letter signed with PRIPL, the scope of work involved conducting the desk review of the project documents, mapping of key project stakeholders, developing research methodology & impact map, data collection & analysis and report writing.

2.2. IRECS Framework

The impact of the programme was assessed using the IRECS framework. IRECS is geared to provide overall feedback on the efficacy of implementation as well, as its efficiency in terms of achievement of the desired project outputs with reference to inputs. IRECS framework measured the performance of programme on five parameters – Inclusiveness, Relevance, Effectiveness, Convergence and Sustainability.

Overview of areas assessed under each of these five parameters is provided below:

Inclusiveness - Ability of different stakeholders, particularly poorest and most marginalised - to access the benefits of activities, be part of institutions (healthcare / education committees) and derive equitable benefits from assets created.

Relevance - Are the services /inputs /institutions facilitated in the project able to meet community priorities? How was the planning done? Was it participatory? How were the success indicators developed? Was the community involved in development of project indicators?

Effectiveness (& Efficiency) - Have the activities been able to effectively address community expectations? How efficiently have the resources been deployed, monitored, and utilized?

Convergence - Degree of convergence with government/other partnerships; relationship between individuals, community, institutions, and other stakeholders.

Sustainability - Do communities feel ownership over the assets created by the activities and/or will the Project initiated community interventions sustain even after the exit of the funding agency. Are the institutions strengthened adequately to effectively manage and sustain the activities after the completion of project? Has an exit strategy been drafted?

2.3. Overall methodology

Team has adopted a **coherent and integrated approach** to deliver the scope of work of the engagement. The following **4-stage approach** ensured that impact assessment study was carried in systematic and consultative manner:

Inception and Desk review

- Inception meeting and engagement kick off with the PRIPL team
- Building consensus on scope of work, understanding PRIPL's expectations
- Getting a deeper understanding of the project's basis discussion with the PRIPL team
- Desk review of documents and reports related to the project received from PRI PL
- Stakeholder mapping

Planning and tool preparation

- Finalising the data collection plan in consultation with the PRIPL team.
- Finalising key indicators as per the finalized stakeholders for impact assessment in consultation with PRIPL
- Developing data collection tools
- Digitization of the developed tools
- Communicating the data collection plan to the PRIPL team

Data collection and field visit

- Training of field team on tools
- Initiation of data collection process as follows:
  - Qualitative interactions (IDI) with selected stakeholders

Data analysis and report writing

- Assimilate the key findings to analyse the data
- Present the draft of the impact assessment report to PRIPL team
- Obtain and incorporate feedback received from PRIPL
- Prepare and submit final impact assessment report to PRIPL

Stage 1: Inception and desk review

An **inception meeting with** PRIPL team was organized to introduce the engagement team and provide an overview of the roles and responsibilities of the project team members. Discussions were also held during the meeting to align on the scope of work including the finalization of projects to be assessed during the first phase of the engagement and further, to finalize timelines, and deliverables.

PW team **requested documents/ information relevant for conducting impact assessment** to develop a deeper understanding of the **projects under assessment**. In this regard, following documents were received from the PRIPL project team for the desk review:

- Covid-19 Press release on provision of PSA oxygen unit to PGIMS Rohtak
- Email communication between PRIPL and PGIMS Rohtak
- Email communication between PRIPL and Vendor
- Oxygen Generator Plant PGIMS Rohtak order finalisation

Post receiving the documents, the team initiated the desk review of the projects. This helped the team with the following:

- Develop understanding of the project details
- Mapping of stakeholders to be interacted with during the study

Accordingly, a qualitative research design was adopted for the study. Based on the understanding from the project documents received and discussions with PRIPL, this was one- time CSR contribution, in the form of a PSA unit to PGIMS Rohtak during the COVID times. PRIPL was to provide the funding as per agreed milestones, 60% as an advance payment, 30% on factory inspection and submission of dispatch documents and the final 10% on installation and commissioning of the PSA unit.

Stage 2: Planning and tool preparation

Post mapping of key stakeholders in the previous phase, the study design comprising of a **qualitative approach was** finalised.

Qualitative Research

The key stakeholders were mapped for the project based on the desk review. PW team conducted Key Informant Interviews (KII) with the selected stakeholders to capture their perceptions related to the project. The following stakeholders as shown in the below table were interacted as part of the qualitative research.

Table 1: Interaction with Respondents

Stakeholder	Type of interaction	Number of interactions
Director, PGIMS Rohtak	Key Informant Interview (KII)	1
Chief technician, PGIMS Rohtak	Key Informant Interview (KII)	1
Sr. Prof., Hospital Administration, PGIMS Rohtak	Key Informant Interview (KII)	1
TOTAL		**3**

Stage 3: Data collection and field visit

Before starting the qualitative survey. The field visits and data collection process was done through in-house research team. The team conducted survey, IDIs with stakeholders from PGIMS Rohtak. Field visit to the Hospital was planned for interaction with relevant stakeholders to review the status and impact of support provided. Furthermore, interactions with the PRIPL team was done to understand the funding agency's role in the project.

Stage 4: Data analysis and report writing

The next step was to collate the qualitative data in order to initiate the analysis process. Accordingly, draft impact assessment report was prepared and shared with PRIPL detailing the process adopted, the results, key findings, and suggestions. Basis the inputs received from PRIPL, the report was finalized and submitted for the Management's consideration.

3. Detailed findings and recommendations

This section of the report highlights the key findings of the impact assessment study of the COVID-19 project as per the intervention (provision of PSA unit). It provides a basis for IRECS analysis and recommendations for the project.

Installation of the PSA unit

As per discussions with hospital staff and PRIPL stakeholders, the unit was installed on 30 September 2021, after a delay of ~2month due to, delay in shipping of the machine to site and issues related to power supply at site (PGIMS). As mentioned earlier, the unit was installed in the housing structure created by PGIMS. The PSA unit installed aimed to provide oxygen supply via access ports (means through which the mask, nasal prongs can be connected for O_2 supply) to ward no 2 (Obstetrics and Gynaecology, post-delivery ward through 4 access ports), ward no. 6 (Medicine ward through18 access ports) and ward no. 9 (Surgery ward through 20 access ports) of PGIMS.

3.1 Impact of the intervention

As noted during interaction with the hospital staff, after installation of the unit, it supplied O_2 at the required SpO_2 **of 93%-95%**. The PSA unit, on average, worked for 4-5 hours per day, providing the required medical grade oxygen supply to the wards. One challenge noted by the staff was the overheating of the unit. Once heated beyond operating temperature (25-45^{c}), the unit would have to be shut down (emergency shut down) and then restarted after 20 minutes**. The problem of overheating was managed by supplying oxygen through other means while the PSA unit was shut down by the technician.**

Figure 2: Technician demonstrating shut down procedure.

The unit was installed at the beginning of the COVID third wave. Initially the hospital had planned to treat COVID-19 patients in ward 2, 6, 9. However, a separate COVID-19 ward was created nearer to the Intensive Care Unit (ICU) and the Trauma Centre (Emergency Room) which supplied oxygen via a new PSA unit installed from private and government organisations. Since the COVID-19 patient load during the third wave was managed in the COVID ward, no additional wards had to be converted, hence, it was decided that COVID patients will not be admitted to wards 2, 6, 9 (where the PSA unit provided as per PRIPL support was installed).

Though the unit was not used for treatment of COVID-19 patients it did have an impact on the healthcare of other patients who were admitted in wards 2 ,6, and 9. As informed by the hospital staff, approximately 200 patients were admitted into the three wards each day who on an average were admitted for a duration 4-5 days, hence, the **PSA unit was solely responsible in supplying ~6,000 patients with medical grade oxygen**. As stated by the chief technician the **PSA unit was effective in reducing operational costs** in the hospital (since these units have lower operational cost and also require less expenditure on transporting and storing as compared to liquid oxygen). **The PSA unit reduced the risks associated with handling and storing cryogenic liquids (Liquid oxygen), thus contributing to a safer working environment** for the limited period.

However, as noted by the hospital staff, after a certain period of time (~160 days post installation) the unit was supplying oxygen at an SpO2 between **88% - 92%,** which was below the required levels that needs to be supplied to patients. To counter the decrease in SpO2 (until maintenance work could be done) **the oxygen supply to the wards was supplemented with liquid oxygen** along with the PSA unit.

As noted during interaction with the chief technician and professor in charge of hospital administration multiple efforts were made by the hospital to contact Canyon (who were responsible for the AMC) or Landsky (via email/phone calls) so that maintenance work could be performed. Since these efforts were unsuccessful the issue of maintenance was not addressed, the hospital made the decision to **restrict usage of the PSA unit unless an emergency situation arises.**

Basis the interaction with hospital staff, PRIPL team and field visit to PGIMS Rohtak, it was noted that the PSA unit is currently in restricted usage (as mentioned above). While the impact on healthcare can be attributed to the days that the unit was operational, as of current scenario the unit requires maintenance work for proper functioning. Additionally, proper communication on roles and responsibilities to all partners could be done in the inception phase of the programme for such infrastructure projects, so that the assets like PSA unit could be working at full operational capacity and with high effectiveness.

Figure 3: SpO2 being maintained at 91% (less than required)

3.2. IRECS analysis

Based on the interactions with the key stakeholders and desk review of the documents, the impact of the program was evaluated on 'IRECS framework.' The IRECS analysis summary has been presented in below Table:

Table 2: IRECS Analysis

Parameter	Assessment from the study
Inclusiveness	The unit catered to a **diverse population** admitted in the three wards of the Hospital. It provided uninterrupted **Oxygen supply** (during the fully functioning period) to **all patients** in medical ward, post-operation patients recovering in surgery wards and to mothers who recently delivered babies in the OBG ward.
Relevance	The unit was able to provide the required medical grade oxygen supply to patients admitted into the wards. Since traditional means of supplying oxygen (cylinders, liquid oxygen) were in short supply during the pandemic, the provided unit **reduced the dependency of the hospital** on traditional oxygen cylinders and liquid oxygen systems, during the fully functioning period. However, this could have been more relevant if the PSA unit worked in its full capacity.
Effectiveness	The PSA unit was **solely responsible in supplying ~6,000 patients** with medical grade oxygen. The PSA unit **reduced the risks associated with handling** and storing cryogenic liquids (Liquid oxygen), thus contributing to a safer working environment. The PSA unit was **effective in reducing operational costs** by decreasing expenditure on transportation and storage. However, after a certain period of time (~160 days post installation) the unit was supplying oxygen at an **SpO2 between 88% - 92%,** which was below the required levels that needs to be supplied to patients. To counter the decrease in SpO2 the oxygen supply to the wards was supplemented with liquid oxygen along with the PSA unit. Hence, there was moderate **effectiveness** of the programme in meeting oxygen needs of patients and decreasing operational costs.
Convergence	PGIMS Rohtak is a hospital affiliated with the Government of India. It is a government college affiliated with Pt. Bhagwat Dayal Sharma University of Health Science and recognized by the Medical Council of India. This project also aligned with the government and Ministry of Health and Family Welfare intent on expenditure of CSR funds for COVID 19wherein CSR spending could be done for 'creating health infrastructure of COVID care', **'establishing medical oxygen**

Parameter	Assessment from the study
	generators and storage plants,' manufacturing and supply of oxygen concentrators, ventilators, cylinders and other medical equipment for countering COVID 19'. Hence it is convergent.
Sustainability	The project sustainability could be higher if maintenance of the provided asset (PSA unit) is carried out on a regular basis. It is noted that dependency on the AMC aspect has led to restricted usage of the PSA unit and hence envisaged sustainability could not be attained.

3.3. Recommendation

Communication on roles and responsibilities –

Considering the nature of support provided by PRIPL (response to a disaster situation), not much assessment on the modalities could be worked out as immediate response was of prime importance during the period. Hence, communication on roles and responsibilities of each partner involved with any such future projects with proper documentation of the same should be conveyed at the project conception stage for. It is recommended that such infrastructure projects should include a contract with responsible parties, which would specify the roles and responsibilities, including AMC, monitoring and cost implications. This would avoid instances where effective utilisation of such support is restricted leading to challenges in sustainability of the programme.

3.4. Limitation

1. Lack of project documents –

Since the project was a one-time CSR support during an emergency situation, PRIPL did not sign a contract with the various partners. As no proper documentation was available for the contract/ agreement, the team was unable to review the roles and responsibilities of the various parties involved such as PRIPL, PGIMS, Canyon and Landsky.

2. No project beneficiaries to interact with –

Exact patient load during the project period could not be ascertained. Although it was reported by the PGIMS staff that on average the hospital had admitted 200 patients per day in the three wards. Additionally, the beneficiary data was not accessible owing to the patient data confidentiality and privacy constraints, hence, the team was unable to verify or interact with the direct beneficiaries.