



RESPONDING TO COVID-19

SELCO FOUNDATION

The [spread of the coronavirus \(COVID-19\)](#) is the most serious global health security threat in decades. The whole country is in a state of lockdown and the timelines are unpredictable at this point. And in addition to a health threat, for many of our partners its been life changing few days- severely affecting their livelihoods, and pushing them back into poverty. Many of these partners will be affected in the short and long term by this pandemic and the measures that have been taken to limit the spread of the Corona virus.

Over the years, using sustainable energy as a catalyst, SELCO has worked with very marginalized communities like slum dwellers, small and marginal farmers, street vendors and other daily wage income households. We have also worked with numerous organizations from sectors like health, education and livelihoods- organizations who also cater to people with similar economic background that SELCO caters too.

In this harsh reality, we at SELCO Foundation, stand by all our partners and the communities we have strived to serve for many years now. We have set up a task force to reach out to each of our partners and communities; and map out the potential help they require in terms of finances, administration or any other dire needs they might have. Each of them are being called and have been assured all forms of help in these trying times.

CASE STUDIES FOR COVID-19 RESPONSE IN INDIA

CASE STUDY 1:
Production of protective masks at tailoring centre

CASE STUDY 2:
Decentralized solar-powered solutions for Police check-posts

CASE STUDY 3:
Partnerships to respond to the crisis in urban slum communities

CASE STUDY 4:
Built environment solutions for Covid-19 Response units (Planned)

CASE STUDY 1:

Production of protective masks at tailoring centre

CONTEXT

In February 2020, a tailoring center in Balangir district of Odisha (Eastern India) was set up. Equipped with 7 sewing machines, the SHG was engaged in making cloth bags, working in association with a Clean Energy Enterprise- GreenGold International.

When the COVID-19 crisis hit a few weeks ago and the need for Personal Protective equipment (PPE) became apparent, Mr. Pratik Joshi of GreenGold International took the lead and suggested converting this tailoring facility into a support system for the production of masks.

SOLUTION OVERVIEW

A local rice mill owner and a contact of GreenGold International agreed to donate 18 sewing machines, including one with a DC motor as a demonstration unit.

Mr. Joshi led the discussions with local authorities and coordinated with the Panchayat Extension Officer (PEO) and the Chief District Medical Officer (CDMO), keeping them informed about plans for the center. Earlier in the year, the unit was inaugurated in the presence of representations from the local administration, including the District Collector (DC), Panchayat extension officer (PEO) and Block Development Officers (BDOs).

Raw material and training:

The SHG was trained by a local tailor on the production of masks, where the group contributed a small sum towards the 2 day training. While the raw material is currently being procured from a source in Raipur (Chattisgarh), the aim is to procure the next batch through local suppliers to avoid any logistical challenges.

Safety Precautions:

Under the lockdown, strict measures are taken to ensure the safety of workers. They work for 2 hrs in the morning and 2 hours in the afternoon, maintaining social distancing measures. However, the working hours may increase to 6 hours a day as demand increases.

Production and sale:

The center produces 800-1000 masks per day and the sale is undertaken through the local administration and panchayat to meet the demand from local healthcare centres and villagers. Some are also sold directly to individual end users.

Income:

All profits from the sale of each mask goes directly to the workers, based on individual production per day.

KEY TAKEAWAYS

- This initiative has provided an opportunity for individual SHG members to continue **maintaining a livelihood and earn an income in the ongoing pandemic crisis**
- By integrating efforts and **working with local administration and local healthcare system**, Mr. Joshi is ensuring that the initiative is part of the coordinated response to meeting the need for Personal Protective Equipment (PPE).



POTENTIAL NEXT STEPS

- **Engaging about 500 neighbouring households in the production of masks.** The challenge will be to **coordinate the doorstep supply of raw material and doorstep pick up of finished product**, and support of local authorities for permissions will be critical.
- **Availing written government authorization for production of PPE** by applying formally to the government of Odisha.
- **Accessing working capital required for logistics and raw material** to continue production and sale.
- **Sharing the case with other NGOs, enterprises and local government institutions** as a way to ensure stability in supply chains and meeting local demands in a decentralized manner.

CASE STUDY 2: Decentralized solar-powered solutions for Police check-posts

CONTEXT

Raichur, situated at the northern part of Karnataka (South India) and is one of the hottest regions of the state, with temperatures as high as 40C at this time of the year. With the lockdown in effect to address the COVID19 crisis, public travel has been restricted and is being strictly monitored. Since Raichur lies on the state border, police have been using existing check-posts to monitor the roads and travel movements.

Given the severity of the situation and the need for 24/7 monitoring, district police have set up a number of makeshift check posts along the border. These are used by police and medical staff to monitor and prevent cross border transmission. They are extremely rudimentary facilities, lacking access to energy for basic needs such as lighting, fans and mobile charging. Considering the risk exposure of personnel working here, there was a dire need to provide basic electricity and keep communication intact.

SOLUTION OVERVIEW

Given this context, Mr. Anand Kumar from SELCO India's Raichur branch contacted the Superintendent of Police (SP) who is known to SELCO India through previous initiatives and interactions. Mr. Anand Kumar offered existing decentralized solar powered systems to alleviate the conditions in the makeshift check-posts. The SP agreed and immediately recommended 10 check-posts out of the 47 which were in dire need of better conditions and energy solutions.

Energy Systems

The sites were assessed by the staff of SELCO India with necessary precautions, and three sites were quickly chosen for immediate pilots. Over a period of a few days, systems were installed in three check-posts providing basic lighting, cooling and mobile charging solutions. The lights, fan and mobile charging unit are powered by a 60W panel and an 80Ah battery. Similar installations will be implemented in the remaining check-posts as well in the coming days.

Impact

Since the installation of these systems, police and medical personnel are able to access basic energy and man the check-posts in relative comfort through the day and night. With reliable communication channels, these posts have also become well connected with other check-posts and personnel.



Although the agreement was originally signed for a 15 day period where the systems would be given at no-cost for use in the check points and returned to SELCO India subsequently, the possibilities of installing them permanently in similar check-posts are being explored.

KEY TAKEAWAYS

- The timeliness of this intervention is particularly important; the willingness of the SP to act immediately meant that this **need-based solution contributed to improving patrolling services and provide comfort to police personnel and medical staff on the front lines of addressing the COVID 19 crisis.**
- The **identification of a champion in the Superintendent of Police** and provision of a quality solution has opened the opportunity for a long-lasting, collaborative relationship with the department.
- Through the SP, SELCO India also has the **opportunity to approach the local bank to join their meetings and thereby strengthen linkages** for financing of decentralized solar solutions for local households and livelihoods in the region.

CASE STUDY 3:

Partnerships to respond to the crisis in urban slum communities

CONTEXT

SELCO Foundation works closely with a number of urban slum communities to improve living conditions and livelihoods through reliable energy and built environment solutions. These communities typically consist of migrant labourers, who live hand-to-mouth with income from daily wage labour, including as construction workers or household help. The announcement of a 21-day lockdown to alleviate the COVID-19 crisis meant that like millions of others across the country, these migrants were stranded in the city- unable to go home, with no money and not enough food supplies to survive the lockdown. These communities do not have any legal rights or land documents making them particularly vulnerable without any social or financial security. Some of these communities include:

- **The Dholakwale community** - settled on private land, paying a fixed rent to the landowner. They make Dhols (drums) and sell them the streets of Bangalore city to earn their livelihood — living day to day.
- **The street vendors of Lingarajpuram (North Bangalore)** - living close to the market, they purchase fruits, vegetables and flowers from the central market of Bangalore every morning; and depend on their daily earnings to buy groceries or other necessities.
- **The Hebbal ragpickers community-** collect waste and rags from the nearby area, forming the base for the city's recycling business. Members of the community hail from the North Indian states of Uttar Pradesh, West Bengal etc. and typically only return to their home towns once in 2 years, but send money home on a monthly basis.

SOLUTION OVERVIEW

SELCO Foundation began reaching out to end-users, partner NGOs, government officials and civil society bodies to understand and map the resources available on the ground. In this process, SELCO got in touch with the Azim Premji Philanthropy Initiative (APPI) through another of its partners- the Association for People with Disability (APD) which was also undertaking a similar mapping exercise of the needs of migrant slum workers. Through an initiative of which APPI is a collaborator, these migrant communities are able to access grocery kits and basic food supplies.

Mapping:

SELCO Foundation began by mapping the slums and connecting with communities to understand how many individuals were still in the city and what options were available to them in terms of accessing food supplies. Options such as the Indira Canteen were explored before partnering with APPI.

Partnerships:

APPI acts as a trusted body collating the needs of communities, connecting with organizations working on the ground and sharing the information with other partners involved in actual delivery of supplies. The initiative is funded by Feeding India, the procurement of and distribution of grocery kits is managed by an entity called SAFA and the entire initiative is being spearheaded by an alumnus from XLRI (Management institute). SELCO Foundation was able to include the three communities mentioned earlier which are in dire need of support onto the APPI list.

Delivery:

Through the initiative and the volunteers involved, SELCO Foundation was able to coordinate the relief delivery efforts in the 3 communities. Over the last 2 days, over 230 families (with 710 people) across 4 slums have been able to access grocery kits and will be able to feed themselves for the next 2-3 weeks. This is an ongoing initiative and if the need arises or the lockdown continues, the next phases will see additional delivery of groceries to these communities. Each kit has lentils, rice, cooking oil, salt, potatoes and some basic spices.

KEY TAKEAWAYS

- This initiative highlights the importance of partnerships and capitalizing on the expertise of each organization to build an initiative and bring resources together.
- It was particularly useful in the time of such a crisis to work with organizations that had the necessary permissions from local authorities to travel, transport essentials and distribute. This also ensured that those involved were following basic safety standards and precautions.
- It also exposes the vulnerabilities of urban, migrant communities in a pandemic of this nature- where on the one hand, there are high health risks associated with population density and conditions in the slum, while on the other, there are risks associated with hunger and inability to access basic necessities due to their informal nature. This only goes to increase the resolve for creating the kind of safety nets that communities of this nature need in a crisis situation.

POTENTIAL NEXT STEPS

- 50% of the original allocation was already delivered prior to APPI entering the initiative. However, now with organizations like APPI and SELCO Foundation involved, there is a potential to extend the ongoing efforts, continue the relief work and build on it if required.
- Organizations such as India Impact Network and Merci Mission that run shelter homes for the homeless and prepare meals and grocery kits have approached APPI to undertake similar work and cover more communities.



CASE STUDY 4:

Built environment solutions for Covid-19 Response units (Planned)

CONTEXT

SELCO Foundation works closely with a number of urban slum communities to improve living conditions and livelihoods through reliable energy and built environment solutions. These communities typically consist of migrant labourers, who live hand-to-mouth with income from daily wage labour, including as construction workers or household help. The announcement of a 21-day lockdown to alleviate the COVID-19 crisis meant that like millions of others across the country, these migrants were stranded in the city- unable to go home, with no money and not enough food supplies to survive the lockdown. These communities do not have any legal rights or land documents making them particularly vulnerable without any social or financial security. Some of these communities include: The on-ground infrastructure to respond to COVID-19 would include increasing spaces and shelters for quarantine and creation of shelters for populations which cannot be physically/ socially distanced (such as in urban slums or housing with high population density). India has around 70 hospital beds and 2.3 ICT beds per 100,000 people. That is 1/6th the number of hospital beds compared to China, and 1/5th the number compared to Italy and both these countries are struggling to care for their sick.

The existing and proposed structures/ solutions to meet the infrastructure needs for quarantine, check ups and isolation suffer from a number of challenges, including the lack of ventilation and lighting (shipping containers, heavy duty canvas tents), low thermal efficiency and high dependence on air conditioners in summer months (retrofitted containers, heavy), difficulties in managing logistics and transportation, amongst others. Beyond the basic structures for medical requirements, provisions for food security through distribution of provisions and creation of community kitchens (centralized and decentralized) will be important. And critically, the health system capacity in each state would need to be built based on the degree of disease spread in localized districts and vulnerability of population.

SELCO Foundation has been working with Aspirational districts in the state of Jharkand in eastern India to promote local energy entrepreneurship and enable decentralized energy solutions for un-served and under-served communities in the region. While the state has only seen its second case this week, the high levels of poverty and a large vulnerable population, mean that the health system will need to be strengthened and prepared. The likelihood of a larger outbreak with migrant communities returning home from larger cities is also a concern. Infrastructure, energy, PPE and medical equipment were stated as critical needs by local authorities.

PLANNED SOLUTION OVERVIEW

Based on the gaps in existing solutions, plans have been developed to provide holistic solutions for the 3 stages of COVID-19 response. SELCO Foundation has reached out to the District Collectors (DC) of Ranchi and Dhanbagh districts who are keen to review the potential solutions and prepare for the crisis locally.

For each stage, solution options for renovation of existing units as well as setting up of new units have been developed. The three stages of response include:

Screening and Early Stage Kiosk:

These are light-weight, prefabricated units with thermal insulation and ventilation that can be used to provide essential goods, and be operated by someone from within the community. Screens for information sharing, structure provisions for safe storage and distribution of essentials can be included. They can also include kitchens to support government efforts to ensure food security.

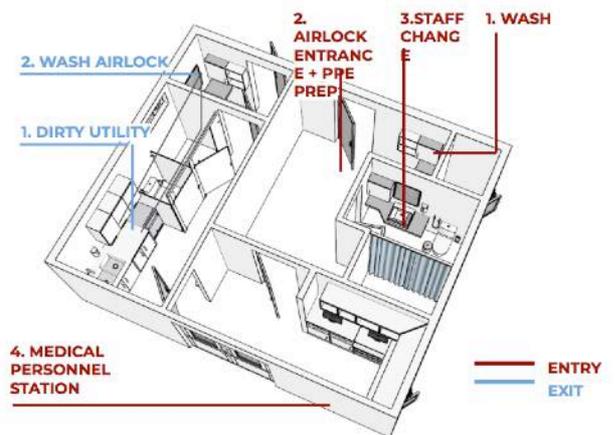
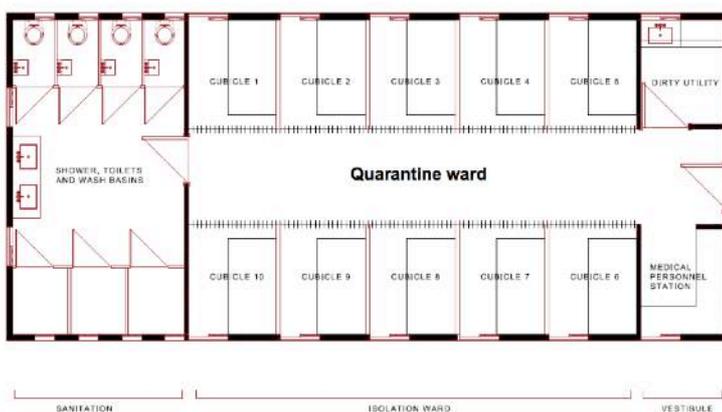
Quarantine and Isolation ward:

Designs for these are developed such that they can be easily deployed by a single vendor and with anywhere between 1-4 days for on-site installation. Plans for renovation of existing units is also being proposed to improve insulation, shading of windows and incorporating decentralized energy to ensure energy independence.

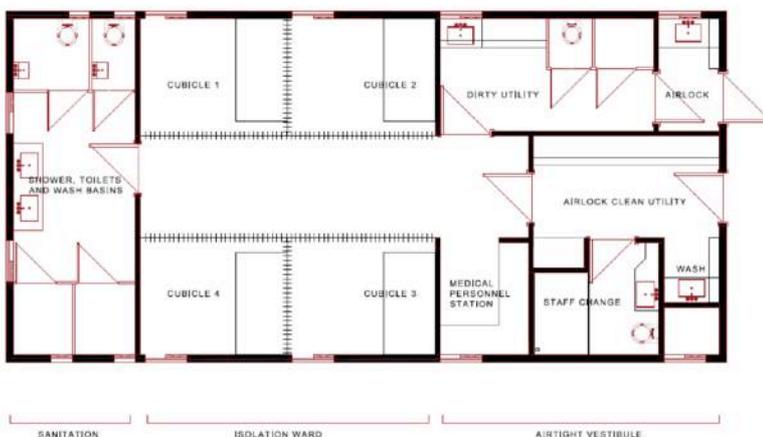
ICU/Therapeutic ward:

These are being planned to be highly customizable in size with fully built in electricals that plug and play. They are prefabricated structures that are easy to transport and set up and include decentralized solar systems, restrooms and thermal insulation.

Quarantine Ward + Add on Vestibule Design for Symptomatic Patients



Therapeutic Care/ICUs



Quarantine Facilities - Spaces where individual can be separated from general public for 14 to 20 days for symptoms monitoring and test for COVID 19 virus. Medical care is not required at these facilities and patients that develop symptoms, need to be isolated and transferred to medical care facilities

Isolation wards - Tested COVID 19 positive cases with no symptoms or mild symptoms, such as fever and Fatigue. 100% of COVID 19 positive patients need physical and social isolation with medical care and monitoring.

Therapeutic Care - Patients with fever and breathlessness and/or mild Pneumonia. Close to 15% of COVID 19 positive patients need basic to advanced therapeutic care.

These would need to go hand-in-hand with access to PPE for medical personnel and adequate medical equipment and general HR capacity of the health systems to successfully mitigate and overcome the crisis at hand. SELCO Foundation seeks to work closely with partners on the ground, including its incubatees (energy enterprises) and other livelihood NGOs that have secured permissions on the ground and are coordinating with government on initiatives such as the establishment of community kitchens for migrant workers who have returned.