GSL Final Submission: Defy the odds

Sustainable Development Goals addressed through out project:
1) No poverty
6) Clean Water and Sanitation
9) Innovation and Infrastructure

Aim of the project: The aim of defy the odds is to aid underprivileged individuals like orphans and labor workers with beneficial items through the use of 3D designing and manufacturing. In addition to that, we provide sanitary resources and food supplies to needy individuals. Moreover, we provide orphanages with handmade crochets, and environmental awareness classes that broaden their understanding as a global citizen. Part of our project involved prototyping, planning, manufacturing and installing a water filtration pump system in a rural Mosque in Karachi, Pakistan for all the children and adults nearby.

Overall impact and outcomes: Until today, we have reached out to over 1,000 individuals including orphans, labour workers and people with disabilities. We have established our chapters in 5 countries including UAE, India, Pakistan, U.S, and Egypt with the help of various volunteers around the world. These volunteers were reached through social media pages and volunteering websites. Furthermore, in total we have raised approximately $25,000 from our sponsors and partners like South India Agencies Pvt Ltd, Aquaholic Creative Solutions LLC, and Ecstatic Apparel line. The outcomes of our project are the following**:** people near rural villages in Karachi have access to clear water and sanitation, labour workers in sector 50 of New Delhi now have access to specialized 3D designed and manufactured load carriers, approximately 500 labour workers, security guards, and staff have access to sanitary resources and supplies, an estimated 400 orphans had food supplies for a month and have little toys and crochets to play with. Lastly, the people with disabilities of Antharbhaava foundation have a new machine to work with through which they earn an income.

Highlights of the project: On top of distributing food and sanitary supplies to the underprivileged we also implemented numerous individual projects. For instance, the water filtration project in Karachi. This was a 4-month assignment we had taken after seeing the unsanitary conditions of the water provided to the children near the mosque. To start this project off, our 3D designers created a 3D design of the water filtration system that works like a water pump. Multiple parts and features on the 3d designing software like spline and extrude were used to ensure that it would work in real life.

After that, we partnered up with Chandra Engineering and Mechanical works in India to print parts of the 3D designs and assembled them together. Since our team had to purchase certain items that had high costs, we approached an advertising firm in the UAE (Aquaholic Creative Solution LLC) to fund us with our project. After multiple meetings, we pitched the assignment, and ACS decided to provide 3,500 dollars as part of their CSR initiative. Now, with the help of “Defy” volunteers in Pakistan, we were able to assemble the whole filtration system there and install it in the Mosque so fresh water was available for all children and adults in the areas nearby.

Furthermore, after a detailed and comprehensive pitch, we have also received a funding of $20,000 from South India Agencies pvt ltd to further advance our goal. SIA had invited our leader**,** Advait to their headquarters in Bengaluru, India to pitch our project to the directors and CEO there. After numerous meetings, SIA decided to give this amount of funding as part of their CSR initiative as well. One of the managing directors had also written a letter of certification to recognize our project and our efforts in aiding

the underprivileged. SIA is the leading interior design and architectural firm in India who have worked with major companies like Samsung, Wipro, Infosys, and Microsoft. Using a part of this funding, we designed and manufactured load carriers with special features that were then distributed to workers in sector 50 of New Delhi. These features include easy to grip, special hooks to carry more items, wide plain back to rest the load etc. With the funding, we also donated a new machine to the Antharbhaava foundation which is a working place for people with disabilities in India. They create eco-friendly bags and punch it with eyelet designs to sell it to retailers for an income. Our volunteers also worked with them to speed up the efficiency.

Success: Throughout the course of the project, we were able to successfully conduct and implement a variety of tasks which positively impacted other within various communities. We successfully 3D designed water pumps and water filtration systems that were installed in impoverished and rural places in Karachi, Pakistan where large amounts of people benefited from the clean drinking water. Successfully obtained and utilized funding for our cause: $20,000 from South India Agencies, $3,500 funding from Aquaholic creative solutions LLC, and $500 from ecstatic.
Moreover, we had an extensive range of partners with factories and organizations to further support our project such as the 'crochet your way' and 'for the menstruator (FTM)' organization from which we were able to sell and spread awareness of the stigma and surrounding workers within the community. FTM mentored our project as they were the TOP 5 GSL projects of 2018 and have won major awards like the Diana Award. Furthermore, these crochet bands were provided alongside 75+ sanitary supplies to labor workers and security guards within the U.A.E community. Some of the supplies included toothbrushes, deodorant, hand soaps, face shields, and safety gloves in spite of the COVID-19 Pandemic. Regardless, these accomplishments would have been incomplete without successful team collaboration, support from our volunteers, and funding attained from our partners.

Failures: Some of the labor workers were hesitant and kindly declined to our donations. We also weren't allowed in certain areas due to COVID-19 restrictions. This also meant that some materials and supplies were difficult to access and use in our projects such as the 3D printing machine. Funding in U.A.E was illegal, and we had to arrange our funds from outside the country.

The skills and knowledge/learning gained through the project: We learned and applied many interpersonal skills that were gained including effective team collaboration, and communication amongst volunteers in order to arrange transportation and materials. We also learned how to manage and outreach using a social media account and find volunteers. We additionally learned how to make pitch presentations and developed public speaking skills in order to attain funding from factories and organizations. More importantly, we learnt how to use 3d designing softwares in order to design and print prototypes of certain items and supplies. We learned about the mechanics and certain chemical processes regarding the water filtration systems that were installed.

Pitching our organization to SIA

Manufacturing in factory

Installing the water purification system