

Sewing Centre Proposal

Introduction

One potential source of income generation for the Indlovu Project and job creation for community members would be a sewing centre where sandbags, clothes, and other goods could be made. Sandbags could be sold to ecoBEAM or used in local construction projects to provide employment and reduce their cost. Other goods such as clothing or pillows could be sold directly to community members or to visitors in the community centre shop. Most importantly, a sewing centre would create jobs and facilitate skill development for Monwabisi Park residents.

The initial ideas for the creation of a sewing centre were developed by a group of four students from Worcester Polytechnic Institute (WPI) in 2008. Plans for the sewing centre were set in place and a group of community members were trained to work, yet the centre never became fully operational due to the fire that destroyed the building and sewing machines. Many of the ideas represented in this plan are ideas that the 2008 team developed that have been expanded and modified to reflect changes that have taken place in the community over the past year.

The sewing centre will likely only provide a limited number of jobs initially, but expansion possibilities create the potential for providing employment to a large number of people within the park. The centre will also provide training sessions open to the community, so that anyone interested can learn the valuable and marketable skill of sewing.

One of the primary products of the sewing centre would be the sandbags used in ecoBEAM construction. Sandbags are a particularly good starting point because there is a direct need for them within the community, and they are very simple to make. EcoBEAM technologies has built the Indlovu Project guest house and community centre and will likely continue building community structures and eventually houses. The ecoBEAM method uses sandbags to form the walls instead of bricks, providing a durable house that is well insulated and inexpensive. During construction, community members are employed to fill sandbags and construct the building itself. Providing the opportunity for Monwabisi Park residents to be employed sewing sandbags extends this feeling of community-driven redevelopment even further and allows the community to be connected to the redevelopment efforts in the park.

Location

Choosing a location for the sewing centre is a critical part of the success of the centre. Monwabisi Park is divided into four sections (A, B, C, and M), and all of the Indlovu Project operations thus far have been located in C-section of the park. This creates some tension and jealousy from other areas who feel left out of the project effort. Because of this, it is important to try to directly include or service the other sections whenever possible.

A new community centre is currently under construction in C-section, which will have adequate space on the second floor that could be used for a sewing centre. This is the easiest location for the centre, and will be available sooner than any other options, but it raises concerns about adding more to C-section. Plans have been discussed for another community centre to be built in B-section, but it is unclear when construction will begin. Because of the tensions around building up even more in C-section, it may be better to wait until the B-section community centre is built to start the sewing centre. But if construction plans are stalled for too long, the C-section community centre may be the only option.

The physical requirements for the sewing centre are minimal. The initial location of the sewing centre does not need to be very large. The space must be big enough to comfortably fit at least two sewing machines. According to ecoBEAM founder Mike Tremeer, a space of six by three meters can hold six machines and all the materials for a week's worth of sandbag production. The space chosen must have at least one electrical outlet per sewing machine as well as adequate lighting and temperature control. The fabric used for sandbags must be kept out of direct sunlight, so the centre must also have a secure closet that can be used to store fabric and completed sandbags. The sewing centre space must have doors and windows that can be strongly secured to protect the sewing machines and materials.

Sales and Market

One of the benefits of creating a sewing centre in Monwabisi Park is the existence of a known and stable demand for sewn sand bags from ecoBEAM. EcoBEAM could buy up to 20,000 sewn bags from the sewing centre each month, at a profit margin of 17 cents per bag. EcoBEAM would provide the fabric in a 500 meter roll, and employees at the sewing centre would cut it into small 300mm-wide sheets. Initially, there may not be enough space or the right equipment to do the cutting, so the fabric may have to be pre-cut by ecoBEAM.

In addition to simple sandbags, the sewing centre could also produce clothing, pillows, and other goods. These items could be sold to visitors in the community centre shop or directly to community members. If a payment scheme is implemented whereby a seamstress is responsible for selling her own work and gets paid in full for the goods she sews, there could be a small fee for having items for sale in the community centre shop. After a sale is made, either the sewing centre or the Indlovu Project as a whole could take a small percentage or a flat fee in order to sustain its own activities. The majority of the proceeds, however, could go directly to the seamstress.

Sewing Machine Cost and Other Expenses

Sewing Machines

Since the material used to make the sandbags is thick and strong, an industrial sewing machine will need to be purchased. Industrial machines are capable of sewing through thick materials and, although they are more expensive, will last longer and be the most efficient choice in the long run.

The industrial sewing machine chosen by the 2008 Economy Team was the Swift GC 5550. They purchased two machines for a total of R5500 including VAT. The sewing machine distributor, Berzacks, recommended the Harrison GC 55508, a machine that is only R100 more than the Swift and would sew sandbags more effectively and efficiently. Either choice would be beneficial to a full working sewing centre in the future because both are capable of handling expansion.

All machines purchased from Berzacks include a six month warranty, two litres of extra machine oil, a free training session, and machine delivery. While the 2009 Economy Team was here, we purchased one Harrison GC 55508 to be used in the eventual sewing centre.

Other Expenses

Besides the sewing machines, there would be a number of other expenses in starting the sewing centre. The centre would need scissors to cut the rolls of polyester fabric used for the sandbags, machine oil to keep the machines running, a laying table to cut and measure the fabric, and needles for the machines. The fabric and thread will be provided at no cost by ecoBEAM technologies. During the 2009 Economy Team's work period, we bought a sewing machine, scissors, and extra fabric and thread for practicing and training. Once a location for the sewing centre is selected and ready, a laying table will still need to be purchased.

Operations and Management

Imiza Moyethu

In Harare, just outside A-section of Monwabisi Park, there is a fully functional and independent sewing centre, called Imiza Moyethu. The sewing centre was started in 1987 as part of the Catholic Welfare and Development (CWD) project. Today, Imiza Moyethu is separate from the CWD and reports to a steering committee that makes any major decisions. The sewing centre has one manager, Nobandla, who does most of the training, oversees day-to-day operations, and reports Imiza Moyethu's budget to the steering committee each month.

Imiza Moyethu operates primarily as a training facility. Every month, they take on approximately twelve new trainees for sewing instruction. At the end of the month, the graduated students can continue to use the sewing machines to make clothes and other items that they can sell. They receive fabric from the sewing centre, and once they have sold an item, they have to pay back the cost of the fabric to Imiza Moyethu. As the seamstresses start making money, they also need to know how to spend it in a way that will keep their small business profitable and sustainable. In addition to teaching people how to sew, Imiza Moyethu also trains people in basic business and accounting skills so they have the knowledge to make smart business decisions. Once they have past the training stage, a good seamstress can earn in the vicinity of R 2500 to R 3000 a month.

Since Imiza Moyethu is so close to Monwabisi Park and appears to be very successful, establishing a strong relationship with this centre could be very helpful in the successful launch of a new sewing centre in Monwabisi Park. One idea is to have them establish a second centre as a satellite to their Harare initiative in one of the community centres run by the Indlovu Project. The manager of this centre could be either an experienced seamstress from Harare or an individual from Monwabisi Park who could be trained at the Harare centre. Monwabisi Park residents may be more inclined to work under someone else from Monwabisi Park, even though they might not have as extensive training as someone from Harare might.

A collaboration like this between Imiza Moyethu and the Indlovu Project could be very successful. Imiza Moyethu has the knowledge, skills, and experience to run a sewing centre, and the Indlovu Project has physical space, equipment, and demand for goods. Allowing an already successful operation to run the new sewing centre avoids re-inventing the wheel and cuts down on the possibility of mistakes due to inexperience.

Even if Imiza Moyethu is not interesting in setting up a sister site, there is still much the Indlovu Project can learn from how they run the organization. They can be turned to for advice and could perhaps train some people from Monwabisi Park who could be in charge of setting up the new sewing centre.

Alternative Plan for Sandbag Sewing Centre

We strongly recommend following in the footsteps of Imiza Moyethu in terms of management, operations, and trainee hiring. However, we have developed some of our own ideas for sewing centre operations in case the relationship does not work out or if the Indlovu Project thinks a combination of Imiza Moyethu practices and new ideas would work best in Monwabisi Park. However, we have included our original plans for a sewing centre that would focus primarily on sewing sandbags below. We hope these ideas will inspire more creative thinking and provide a fallback option if the methodology employed by Imiza Moyethu does not work out or does not fit in the context of Monwabisi Park.

Employee Duties

Upon being hired, new employees need to go through training so they can learn to use the machines and sew in straight lines. All of the bags sewn at the sewing centre should be of good quality, so this initial training is essential. Once they are comfortable making sandbags, each employee will be given a sandbag quota that they need to meet by the end of each shift. To keep track of which employee sewed which sandbags, each employee will be given a different colour thread. The employees will also be responsible for cutting enough material for the entire shift at the start of their shift. Other smaller expectations include:

- Sewing the sandbags in an efficient manner
- Making sure they understand all facets of the sewing machine
- Keeping their work area clean
- Following the direction of management
- Keeping track of the number of "strikes" they have and trying to remedy the situation (more on "strikes" later)
- Showing up to work on time and keeping good conduct in the workplace

The suggestions we have listed above are just a list of what we believe employee duties should be. As management becomes more experienced, they should determine the rules and regulations of their employees.

Employee Shifts and Number of Employees

The sewing centre will operate for eight hours a day, four days a week (Monday through Thursday). Within these eight hour days, there will be two four hours shifts, 8am-12pm and 1pm-5pm. During each of these shifts, there will be two regular employees that each have a sewing machine to use. As previously mentioned, employees will be responsible for completing a certain number of bags during their shift. If they finish early, they have the option of leaving early. Therefore, each employee is paid by the hour to ensure they take their time and produce quality sandbags.

Each employee will receive only two shifts per week. If an employee would like both of those shifts to fall on the same day, they will have that option. Therefore, the hour in between shifts will serve as a lunch break for them and a chance to clean and prepare their station for the next shift. This hour, however, will be unpaid.

Because ecoBEAM has agreed to purchase around 20,000 sandbags per month from the sewing centre, we would ultimately like to output about 1,200 bags per day. This would mean that each sewer would need to output about 300 bags per four hour shift. With two people per shift and two shifts per week per employee, this would make eight regular employees, not including management.

Management Duties

The management is in charge of overseeing the day by day operations of the sewing centre. Managers will need to be at the centre at the start and finish of each day to open and close, making sure it is secure before leaving at night. They will be responsible for checking the sandbags at the end of each shift to make sure they are of good quality and that quota has been reached. The key role of the management will be working closely with the Indlovu Project and reporting that all work has been completed for ecoBEAM in a timely fashion. Some other expectations of management are:

- Making sure everyone gets to work on time
- Packaging the finished sandbags at the end of the shift
- Keeping a board of rules, regulations, updates, and daily goals
- Oversee workers to make sure they are doing quality work

- Being sure that the centre is always supplied with raw materials

Management Shifts and Number of Managers

Since management needs to keep track of the sandbag output and that employees are arriving to work on time, they need to be at the sewing centre for a half hour before each shift and a half hour at the end of each shift. There would be a morning shift and an afternoon shift each day. These shifts add up to two hours each day, eight hours per week. This would mean about four hours for each manager. However, besides the usual working hours, managers have several other paid responsibilities. First, managers should be stopping in at random to make sure that employees are working during their shift and that their conduct remains professional while they are gone. Second, management should be communicating at least once a week with the Shaster Foundation, and providing them weekly reports of the sewing centre's output. These tasks would provide management with another one hour of paid work each. All together, each manager would receive five hours of paid work each per week towards the daily operations of the sewing centre. However, management will also be needed during the Friday Training Sessions which are discussed later. This will give them the opportunity for more hours and more money.

Outside Training Resource

In order for the sewing centre supervisors to understand all implications of their decision making, it would be in the centre's best interest to hire an outsider who is knowledgeable in the management process. At this point in time, no one within the community is fully prepared to manage a full working sewing centre. We are hoping with the help of this outside resource, the management chosen will continue to be successful even after we are gone. This outside resource could be a local volunteer with a wide variety of management experiences, or someone professional who is compensated by the Shaster Foundation for their work. This trainer could shadow the sewing centre managers until the trainer is comfortable that the manager can function all aspects of the centre without help. This should move the sewing centre much closer towards becoming completely self-sustainable.

Firing

Important Observations by Management

There are several key behaviours that the managers need to look out for in their employees:

- If they are late for their shift
- If employees do not complete sandbag quota by the end of the shift

- If employees are not doing quality stitching
 - In this case, be sure to point out their mistake several times and show them how to fix it before counting it against them
- If employees are practicing bad conduct in the workplace (manager's discretion)

Three Strikes Policy

Managers are responsible for making sure that all employees know and understand the above infractions. Should any of them change, management should make use of the sewing centre whiteboard which lists rules, regulations, daily expectations, and updates. Should employees practice the above infractions, it is the managers responsibility to record one strike against them and make them aware of that strike. Employees should receive continuous warnings of the strikes that they have against them. If the employee would like, an agreement can be made between the manager and employee to remedy the situation. In order for this to happen, an employee would have to somehow prove to management that they are a valuable worker.

If an employee should receive three strikes, it is up to the management to fire that employee. If an employee is fired, management must make the Indlovu Project aware so they can alert the hiring body to replace that employee.

Firing of Management

It will be under the discretion of the Indlovu project to decide whether or not managers are completing their duties. Since it is so important that the manager be in constant communication with the Indlovu Project, if the manager does not do so then they should be fired. If the Indlovu Project chooses to fire a sewing centre manager, they need to appeal to the original hiring body to choose a new one, preferably someone who is not already working in the sewing centre.

Payment

When considering the payment methods for the hired workers of the sewing centre, several basic questions must be answered: Who manages the payment? How often do the workers receive compensation for their work? How much do they get paid? Now, some of these questions have multiple answers that create several options for the payment plan. Each of the options will be discussed with pros and cons so they can be expressed in a manageable fashion, in order to determine the best method in the future.

Payment Management

Currently, the best possibility for managing the payment of the centre is the Shaster Foundation because it already has the resources to control the dispersion of money. There has to be an organized group of people to keep track of the revenue due to the fact that an accounting scheme is not familiar to any of the people who will be working in the centre, managers included. This will create less responsibility for the managers initially and it will create a valuable opportunity for the managers to eventually keep track of a budget without the Shaster Foundation. Also, since the Shaster Foundation already has a framework setup to pay the other staff of the Indlovu Project, the hired workers in the sewing centre will follow the same plan.

Frequency of Payment

As touched upon above, the Shaster Foundation follows a specific framework for payment, but other options should be discussed and tested to determine the best solution.

Option 1: Weekly

Although the Shaster Foundation does not pay their employees on a weekly basis, we believe this option would make employees happiest. A weekly payment will help to teach the workers to manage their income better, while also rewarding the workers for their efforts on a more consistent level. This can be rather difficult to implement, however, because it increases the amount of paperwork and takes time away from the people who are managing the payment dispersion.

Option 2: Bi-Weekly

This solution is the most efficient payment method, because workers still receive their compensation often while creating less paperwork and files to be kept by the management. It will also help to teach the workers to manage their money just as the weekly payment does, while keeping them happy because they receive compensation on a more consistent basis. This is the preferred payment method for the workers of the sewing centre as it takes into account the needs of both the workers and the management organization.

Option 3: Monthly

The Shaster Foundation's currently pays their workers monthly and are willing to incorporate the sewing centre into their current payment system. However, a monthly payment method does not benefit the people in the same respect as a weekly or bi-weekly plan. Also, workers may be less inclined

to appreciate the work when receiving a payment once a month. Community members most likely prefer being paid more often with less money.

Salary Amount

Under the assumptions of twenty thousand bags a month and a seventeen cent profit per bag, the centre could afford to hire eight workers paid R95 per week. Alternatively, the centre could hire six workers paid R125 per week. These numbers are flexible and can be decided by the will of the community. The more workers employed, the fewer hours each employee will work and therefore the less each employee will earn. You can view the full sewing centre cost analysis in Appendix A.

It is important to note that both the workers and the managers will both receive the same amount of compensation for their work even though they have different responsibilities. Regardless of their different job descriptions, the centre would not be able to function if the workers or the managers did not do their job. It is with that mindset that both should be paid the same amount, because their jobs are equally important. This stance is also positive because there will be no worker or manager more important than the other. This is stressed in order to prevent tall poppy syndrome from being a problem in the sewing centre.

Friday Training Sessions

One idea developed by last year's group was training sessions managed and run by the workers for members of the community on a weekly basis. On each Friday, people from the community will be trained by the sewing centre employees who will have the opportunity to share their learned skill as well as spread the word about the opportunities created by the sewing centre. The opportunity will be open to any community member who has an interest in learning how to sew, but the number of people per training session is limited. The time spent in each training session will also benefit the workers of the centre by giving them more hands on experience, creating a better understanding of the machine operation.

The training sessions will take up the full day, from 8 AM to 4 PM broken up into four separate one and a half hour shifts. These shifts will be separated into the time periods of 8:00-9:30, 10:00-11:30, 12:30-14:00, and 14:30-16:00. It is expected that every employee will work one of these shifts with another one of the workers. Assuming eight people are working at the sewing centre with two machines, there will be enough space for four community members per shift, two at each machine, with one worker teaching them on each machine. Because there are so many shifts, multiple community

members can learn each day at a slow pace. Although this day takes away from a regular work day, it brings a lot of good towards the community and still provides paid hours to the workers.

Time	Machine 1	Machine 2
8:00 - 9:30	Worker A	Worker B
10:00 - 11:30	Worker C	Worker D
12:30 - 14:00	Worker E	Worker F
14:30 - 16:00	Worker G	Worker H

Future Expansion Options

With a running sewing centre, there are always expansion options that should be considered in order to create more opportunities for the community. The benefits created by expanding the sewing centre to produce different items, or more sewing bags is that more jobs are created and more money is brought into the community.

One of the items that is needed within the community is school uniforms. All of the children are required to wear certain apparel in order to attend school, and if it could be made within the community then the middle man would be cut out and prices of the uniforms would drastically decrease. There is clearly a large need and a good market for the sewing centre to produce the uniforms, but there are obstacles that would need to be overcome. The first barrier would be the difficulty of actually sewing clothing. A sandbag is very simple to sew and requires one stitch repeated on each side of the fabric. The sewers would need to be trained at a higher level in order to have the skill level required. This is not a huge problem, as the sandbags will be a great learning base for the employees to start with.

Some other items that would be useful within the community, but are simple to make, include hotboxes and shopping bags. The Energy Team has been exploring the usefulness of hotboxes within the community and if they were to decide they would be a positive item within the household, production could begin. The same follows true with shopping bags because they both require the same stitch as sand bags, and are very simple to produce. If we plan on sewing a large number of uniforms for the children of the community, hotboxes, and shopping bags, then more sewing machines would need to be purchased in order to make sure the output of the sand bags does not decrease.

If the need for sandbags were to increase because houses were built within Monwabisi Park, the need for sewing machines would also increase. Each house requires approximately six thousand bags in order to complete construction, and each sewing machine can create approximately ten thousand sandbags per month. Therefore, if it is decided that a large amount of new housing will be placed within the park, several new machines will need to be purchased in order to keep up with the great need within the community.

Once the sewing centre is running smoothly, some people may wish to start their own sewing businesses. It may be advisable to purchase cheaper and more portable machines at this point, if community members are interested in renting a machine to use in their own homes. The rentals could proceed in a rent-to-own fashion, so that once the sewer has paid enough for the entire machine, they can keep it and own it completely. Alternatively, if a sewer wanted to accelerate payments or buy the machine in its entirety up front, it may be advisable to look into nearby microfinance institutions, like the Kuyasa Fund, who provide small loans to entrepreneurs trying to work their way out of poverty.

Conclusions and Overall Recommendation

Our strongest recommendation is to establish a working relationship with the Imiza Moyethu sewing centre and see if they will help in establishing a new sewing centre in Monwabisi Park. If this is not possible, our recommendation is to follow the model that Imiza Moyethu uses as closely as possible and appoint a manager to shadow Nobandla, the manager of Imiza Moyethu. The alternate plan presented above reflects our initial thinking on how a sand bag sewing centre could be run. Many of the recommendations we made were based on trying to minimize power imbalances and emphasize a community of seamstresses working toward the same goal. We worried that having a single manager or seamstresses producing their own goods to sell by themselves would not work well in a culture where community and equality is so important. However, having seen the success of their project and methodology, we fully support their approach.

Appendices

Appendix A: Full Sewing Centre Cost Analysis

Any figure in a white background is an adjustable parameter and can be edited. Italicized figures with a grey background automatically change when adjustable parameters are edited and should not be manually altered.

Sandbag Cost Analysis	
Fabric cost per sandbag	-R 0.60
Purchase price per sandbag	R 0.77
<i>Profit per sandbag</i>	<i>R 0.17</i>
Monthly sandbag production	20,000
<i>Monthly sandbag profit</i>	<i>R 3,400</i>
Labor Cost Analysis	
Employees	4
Managers	2
Sewing Machines	2
Employee weekly salary cost	-R 125.00
Manager weekly salary cost	-R 125.00
<i>Total weekly employment cost</i>	<i>-R 750.00</i>
<i>Monthly salary costs</i>	<i>-R 3,258.93</i>
Labor Scheduling	
Production hours per week	40
<i>Sandbags produced per hour</i>	<i>115.0684932</i>
<i>Sandbags produced per hour per machine</i>	<i>57.53424658</i>
<i>Hours worked per week per employee</i>	<i>20</i>
<i>Hours worked per week per manager</i>	<i>20</i>
Summary	
<i>Total monthly income</i>	<i>R 3,400</i>
<i>Total monthly costs</i>	<i>-R 3,258.93</i>
<i>Total monthly profit</i>	<i>R 141.07</i>

