



Handover Summary

Everest Recycling Solutions - Timor-Leste

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1.0 Executive Summary

Everest Recycling Solutions (ERS) is an ideated and trialled recycling and segregation business with a concurrent education program operating out of Dili, Timor-Leste. The business is currently registered as Project Everest in Timor-Leste, and due to licensing laws must operate as such. Currently there are six local businesses onboard that separate waste from recycling (aluminium, glass and plastic) where it is collected on a scheduled basis. We also have taught recycling workshops in two schools so far, and there are many more schools and institutions interested in our education program. Timor-Leste is a young and beautiful country, however it is plagued by several issues which are detrimental to the environment and the people and wildlife that reside in it. One of the biggest is the current method of waste management and the fact that no recycling is present within it.

Our aim as a business is to develop a long-term solution to the waste management situation in Dili and eventually the whole of Timor-Leste, while still generating profit and stimulating the local economy. Because of this we have a unique value proposition that benefits Timor-Leste socially, environmentally and economically. There are many people in Timor-Leste who already understand the extent of the problem and want to recycle but there is no service in place for it to happen which is where ERS comes in. ERS has established a paid collection and segregation service currently serving six businesses and on selling some of the recyclable material as well as making products to be sold.

Currently ERS only services expatriate (expat) business and hotels but one of the major aims is to expand into other markets such as local businesses and residential collection. In the next month, we also intend to acquire land to store and process the recyclable material and hire local staff so operations can continue while the Project Everest crews are out of country. In addition to the expansion of customers is the expansion in types of recyclable material that can be collected and processed including paper, electronics, organics etc.

We currently provide education workshops to elementary, high school, and university students, for both international and local schools. Our education workshops have the dual benefit of



increasing recycling understanding and hence demand for our service. We are also running workshops to teach volunteers how to run our education workshops, which will further expand environmental awareness.

In terms of the financials of ERS, the net profit (excluding prototyping and general transport expenses) was positive at \$27.90. Financial projections have shown that profits will continue to rise with net profits of roughly \$785 at the end of January 2019. In terms of the collection service provided, a total of only six recycling collections are needed, with a sales revenue of about \$50 before ERS will break even. This however excludes the consideration of the acquisition of machinery such as plastic shredders. ERS has no liabilities.

Over the course of January we have been in touch with four major partners from the previous months - Besi Tua, RMS, 3R, and UNTL Interns. We have also gained two new major partners - Cruz Vermelha Timor Leste, and Timor Foundation. We are still looking to gain more partners in the coming months.

2.0 Ownership Structure

ERS is a business that is wholly owned by Project Everest. There are no other shareholders. Funding for ERS is therefore acquired from Project Everest. Funding is also being pursued through Timor Foundation and MDF, however both of these partnerships are in their early stages. Additionally, these partnerships will not result in any loss of ownership in ERS to the Timor Foundation and MDF. XYZ For Good Pty Ltd T/A Project Everest is the current owner of this business. Project Everest intends to offer equity in return for a qualified team to take this business on full time, with a plan to only retain between 5-10% of the business.

3.0 Products and Services

3.1 Collection and Segregation

The service provided by ERS currently consists of two parts: the recycling collection and onselling/creation of products. Currently the collected materials include aluminium cans (coke cans, beer, etc), glass bottles (wine, beer, etc) and plastic bottles (mostly water bottles).

ERS sells the service of recycling collection for \$10 per pick up, and currently on-sells aluminium at a profit. At the start of a collection period customers have a one week paid trial after which they may continue with the collection service. Customers can provide their own bins at no additional cost, or they can buy bins from ERS at \$35/bin (40L) or \$70/bin (100L) with identification logos and instructions painted on at no additional cost. Customers can either separate the aluminium, glass and plastic themselves into three separate bins or have all three products in the one bin collected. Currently there is no price benefit to separating recyclable for customers, however this is being explored in the future.

3.2 Staff Education Workshop

As a part of the service, ERS offers staff education workshops in both Tetun and English which teaches staff about how to recycle and the importance of recycling. This education workshop is vital as without staff understanding why their business recycles, the mindset of the community cannot change and this stops the growth of ERS.

3.3 On-sell and Repurpose

The aluminum cans have a very simple process which is used by many locals. The cans are stored separately in large white bags (bulka bags). Besi Tua are then called to arrange pick up when full. Note there are two companies which recycle aluminium, the one to use is called 'Besi Tua'. The price is \$0.75c/kg and pick up is free.

ERS has been in contact with RMS to do extensive testing in regards to using glass as an alternative aggregate instead of gravel. RMS has agreed to test the crushed glass for free which



usually costs around \$300. For the month of January we have provided them with 40 kg of glass for testing and the testing can take up to 28 days for the full results.

Some prototyping has been done on a glass crusher in case the RMS deal goes through and they have to be provided with crushed glass. RMS are likely to buy the glass from ERS if the test goes well however even if they don't, more building and construction companies can be contacted once the progress of the testing is known.

Plastic bottles currently have two avenues being investigated:

1. Recently ERS had meeting with a man called Ximenes Belo. He owns land and some industrial grade machinery, including injection molders. His current operations are as such: He purchases plastic bottles from Tibar, via the workers there who transport the bottles to him for 10c/kg. He then compresses, shreds, and stores the plastic until it can be loaded in a cargo container and shipped to Jakarta, where he receives 55c/kg. He has also been experimenting with injection molders and designing his own plastic chairs and tables. This made him a prime candidate to sell plastic bottles to given his already established operations and his efforts towards recycling. However Ximenes has been facing issues with his land due to logistical reasons implemented by the government and he is unable to purchase plastic from ERS for now. He predicts that the issue will be resolved in a months time. He has also made assurances he is eager to purchase our plastic.
2. ERS has investigated and has now created a prototype E-cooler. This E-cooler works as a window/door frame which uses the plastic bottle funnel section to create a change in pressure will allows air to flow fast through the holes. This gives a cool breeze effect which can lower the rooms ambient temperature. This device was tested however no definitive results were produced, however this was most likely due to time restraints and lack of proper testing apparatus. This test could have yielded more accurate results if done in a more professional manner. The February ERS team may conduct this test if they deem it viable.



4.0 The Market

ERS has been targeting expatriate businesses with the plan to expand throughout local businesses and various residential areas. A clear sales process has been followed, and has proven successful. Two hindrances of sales have been identified, and ERS is currently addressing them with the aim to eliminate them.

4.1 Target Customers

Initially, larger expatriate businesses are being targeted for a number of reasons. These businesses are typically run by Australians, who have a greater knowledge and interest in recycling than locals. They also typically have the cash to spare, and are more willing to sign on to a paid trial. Also, these businesses tend to have an interest in tourism and recognise the benefit of advertising as an eco-friendly location. Many of the businesses from whom we collect recyclable materials (typically hotels and bars), generate a high percentage of recyclable wastes for us to pick up. It's the high percentage of recyclables in the waste from hotels/restaurants that makes it more appealing to sign on to a recycling collection service (as it reduces the amount of waste they have to pay for to be taken away to Tibar). Word of mouth has also proved very useful in the past month. Significant interest in ERS has been generated from current customers referring other businesses or advertising Project Everest on facebook.

4.2 Market Segments and Growth

As ERS grows and develops, it can begin to expand and start to make a significant impact on waste management in Timor-Leste. After expatriate businesses, the logical progression is to start targeting local businesses, followed by residential expatriate areas and lastly local and rural residential areas. Before expanding into large portions of residential areas, it would be advisable that land is attained to recycle on and clear avenues are created for how ERS will recycle the collected materials.

4.3 Sales Process

Numerous sales have been made following the sales process. This being that ERS will send out an email to prospective customers detailing the service. If they provide an expression of interest,



a meeting will be organised via phone or email. In this meeting Project Everest and ERS are pitched, the prospective customer is empathised with and possible ways in which ERS could benefit the business is discussed. If successful, prices of bins and pick up will be agreed upon along with details regarding a one week paid trial.

4.4 Setbacks

There are two possible reasons as to why potential customers may not sign up for the service. The first one being that until ERS has clear pathways for how it will recycle the collected materials; this is addressed with the pursuit of onselling and prototyping which, therefore differentiates ERS from its competitors. The second being that ERS is still a new business, and many potential customers tend to worry that it will not be reliable when picking up their recycling, or will stop running in the near future like other businesses that also attempted to recycle. By having recognisable and locally trusted partners such as the Red Cross, this issue should become significantly less problematic in the near future.

5.0 Marketing Research

Following the empathising and ideating of the January and February teams, there is a fairly good idea of the waste processing systems in place in Dili: most residential and business waste goes into concrete bunkers (called sempahs) on the side of the road which are periodically emptied into trucks and then dumped at Tibar tip. Some businesses pay for an expensive government service or take rubbish to Tibar themselves.

After making our Business Model Canvas and calculating the cash flow of the business, it became obvious that the main income of ERS would come from the collection of recyclable waste rather than selling the segregated waste. This is contrary to what most business owners believe about recyclables - that they should give us the recyclables for free and we on sell the recyclables to generate a profit. They're grossly unaware that plastics barely break even from their onsale value, and that aluminium cans are only slightly profitable. This is a topic that is sure to arise as more businesses are approached and asked to sign on, and one the summer teams should be ready to answer.



To assess the viability of a recycling collection business we interviewed a number of business owners about their existing rubbish collection services (e.g. Plaza Hotel, see the Hotels and Restaurants minutes folder for more). From this we found that while many business owners, especially expatriates, valued a more environmentally-friendly waste processing model they were often interested in a service that was more reliable and consistent than the existing ones. For this reason we have strived to make the ERS collections dependable as a top priority, and the February teams should strive to do the same.

For the other end of the process we assessed recyclable waste processing options. Some local processing options were explored as well as offshore processing options. A local called Ximenes was interested in buying the plastic for prototyping as he has a facility consisting of heavy grade machinery, that would be able to repurpose and prototype the plastics (more can be seen in the Ximenes meeting minutes. At the moment Ximenes couldn't purchase the plastics because of a land dispute with the government, however is a valuable contact for the future.

The January team has looked at expanding to schools, petrol stations and supermarkets, as well as further broadening our knowledge on what hotels and restaurants are looking for in our services. The schools that were looked into were Dili International School (DIS), Quality International School (QIS), Maharlika School and the Portuguese School. These were important for two reasons; the first being a contact for a new customer, and the second being for education workshops in schools. It has later occurred to us that it was possible to collect residential recycling from schools, and should be investigated further by the February team. Glenn Chapman from QSI was interested in implementing a thirty minute lesson with his students. Glenn wasn't interested in paying for QSI's recycling to be picked up as he wanted knowledge on what was going to happen with the recyclables after. Glenn's also a possible gateway into the expat residential recycling market due to his contacts with expat parents. Man power for beach clean ups were also something that Glenn offered. Mike from the Maharlika School is passionate about recycling, and has already integrated recycling into the Maharlika school curriculum.

Towards the end of January supermarkets and petrol stations were targeted through the help of the intern Simao. It is very early stages and relationships have just been established. When empathising with owners of supermarkets it was evident that cardboard and tetra packs were a



main focus, however ERS currently doesn't offer a collection service for either of those items. Petrol stations pose a similar issue as they don't have a large amount of recyclables to collect, however it did come up that plastic bottles were being recycled as storage containers for kerosene. Even though the plastic bottles are being recycled it would be beneficial if the plastic was collected and recycled by ERS.

6.0 Market Strategy

ERS is able to scale up through utilising the expatriate market (early adopters) as the initial mode of entry into the larger market. This niche entry mode enables ERS to scale up and expand into local businesses and residential areas. Education and awareness simultaneously compliments this process as the more people understand the impacts of recycling, the better the uptake that recycling practices will occur.

6.1 Brand and Logo

We aim to increase brand equity and awareness of Everest Recycling Solutions through our parent company, Project Everest, meaning that through our operations, we are able to build a stronger foundation for our reputation in the community of Dili. A business logo has been developed for the Everest Recycling Solutions (Figure 6.1). This logo aims to brand ERS as a separate, albeit similar, brand to Project Everest. This, however, is not something that we have been able to advertise due to licensing and ruling surrounding Project Everest operating as an official business subsidiary. In Timor-Leste, businesses are not allowed to be licensed as one thing and “operating under” or “also known as” a different name. This obliges us to identify ourselves as Project Everest Unipessol LDA in all contracts and advertising.

There is also a new tax on public logos stipulating that we would have to be paying even more for the use of our logo which is quite difficult to police and would come at a cost to ERS. It will require businesses to pay a fee for every logo they have in public display, and increases the risk of ERS being discovered to not be a registered business. The business is still able to operate using the terms Everest Recycling Solutions, however, not on any contractual or business documents. There is also the potential that ERS will be registered as its own business, again allowing us to use our own logo.



Figure 6.1: Everest Recycling Solutions Logo

6.2 Channels of Communication

ERS prides itself on developing strong relationships through personal and direct selling. ERS offers a collection and recycling service as well as educational workshops; through this, ERS ensures that current and potential customers are contacted directly to allow for empathetic and open communication with ERS staff. As recycling is currently a new and innovative concept in Timor Leste, there is somewhat of a lack of awareness or regard for recycling. ERS aims to eradicate this through education and growing their network through building and maintaining strong relationships with our partners, both expatriate and local representatives to then remain on top of market conditions.

6.3 Strategic Partnerships

In its current state, ERS is looking to onboard partners who are both local and/or expatriate representatives in order to sustainably move forward. Currently, a few partners are on board, however, as ERS is young and in an introductory phase, and so the business aims to partner with more entities who share a similar vision and cultural alignment. Through meeting with government departments and embassies as well as educational facilities based in Dili, ERS strives



to grow a valued partnership network and, therefore, increase awareness of recycling and sustainability.

6.4 School Education

As mentioned above, ERS offers educational workshops to schools and universities, as well as staff working at the businesses of our customers. The workshops focus on why recycling is important, how to recycle and what happens to your bottles and cans in the recycling process. The workshops use interactive and progressive teaching techniques to cover topics including health, environment, image, tourism and animals. This channel of communication aims to increase awareness amongst the youth of Timor as the majority of the population is aged less than 20 years.

Everest Recycling Solutions has recently partnered with the Cruz Vermelha de Timor-Leste to deliver environmental awareness workshops in local primary and high schools using their volunteers. This involves training the volunteers to conduct the workshop autonomously and then overseeing the initial workshops to ensure they're run to a high standard and that Project Everest is represented correctly. This partnership will facilitate the development of volunteers public speaking skills as well as spreading environmental awareness effectively throughout Dili and with minimal investment of resources.

6.5 Marketing Communications

To onboard customers, ERS is currently using a word of mouth communication channel as well as direct selling; this is largely favoured by the residents of Dili. ERS contacts customers either via phone, email or face-to-face selling; thus, ensuring that the brand is reputable in providing excellent customer service and remaining reliable. ERS aims to utilise the word of mouth channel further through offering customers a discounted pick-up for a referral in the near future.

Customers onboard already are able to utilise the information poster that provides customers with an understanding of recycling and why it is important. The signs supplied to clients has the ERS logo and email address on them, allowing new customers to discover the business this way. "We love recycling" stickers are also utilised; this allows businesses to promote the fact that they



do recycle and operate as eco-friendly entities to some extent. This is an excellent selling point for businesses, particularly those in the hospitality and tourism industry.

Ideally, in future ERS would be promoted even further through operating at events and market stalls; branding and recycling information would be on the bins, and those volunteers who are there to facilitate this would be in branded shirts, whilst also directly conversing with the public.

Print marketing is an opportunity for ERS to expand into as the business continues to grow. The Guide Post and Dili Weekly target expatriate businesses which, therefore, shows significant opportunity for ERS to increase brand awareness. This would come at a cost to ERS and, as mentioned in section 6.1, the advertising law would increase the cost associated with this. Another marketing avenue that ERS is currently exploring is TV advertising. The option of presenting on TVTL in a weekend slot shows potential for ERS to increase awareness through reaching more locals in Timor Leste. This avenue encompasses a huge opportunity for ERS to expand and grow further in the wider community, not just expatriate businesses. ERS does not have any social media channels of communication as these are not viable for the operations of business at this current time. It is something that to look into in the future, however, for now it creates misalignment in Project Everest's communication channels.

6.6 Customer Relationships

ERS manages its customer relations through ensuring that all have satisfaction queries addressed after one week of service. This allows customers to voice any suggestions, concerns or queries directly to the business. In future, this would be monitored and regulated by the coordinator; it would be conducted directly with the customer, being that a standard series of questions would be asked to ensure that the customer is receiving the most efficient and reliable service from ERS. Strong communication with customers would continue throughout the month; a minimum of one review of service would be expected each month. Data would be recorded and updated accordingly.

7.0 Competitor Analysis

7.1 Service

A general overview for the service provided by ERS has been outlined in section 2: Products and Services above.

SOP's for venue collection can be found here: Long term customer SOP. The fastest route for collection can be found here: fastest routes. Before collection make sure you have read over the SOP's and have the rubber gloves, hessian bags, invoices and trekkers ready. We are currently collecting recyclables from Hotel Timor, Plaza Hotel and Moby's. However this is subject to change as there are three other customers that have expressed a strong interest in the service provided by ERS.

Once recyclables are collected, they are segregated by us during project, and by a segregator during non-project dates. We are currently in talks with businesses that might take our plastics and glass aggregate. This is further discussed in the "service" section further below.

7.2 Competitors

There were two potential competitors for ERS in terms of the collection of recyclables. Star Products was one but they are currently not operating, while Hopeseller is currently under review and have run out of funding. Hence there are currently no competitors. However, it should be noted that the threat of new entrants is quite substantial, as it only requires a service that doesn't require a collection fee.

In terms of repurposing (or the reuse of recyclables into useful products), there is substantial competition. So far, the only repurposing done by ERS is the use of glass aggregate. As of yet, there are no competitors that we are aware of, but there is likely to be major competitors selling aggregate for concrete. These competitors are most likely unregistered businesses in Dili, making it difficult to find competitor names. Thus it is best to assume high competition for the repurposing of glass. As for the plastic bottles and aluminium cans, they are being sold without



any repurposing. This would mean that Hopeseller and Star Products are major competitors, but both are currently not operating.

The education service towards schools we provide does not aim to generate profits. However, there are some organisations that are worth mentioning, which provide educational programs. This includes Oxfam, the United Nations Centre for Regional Development and World Vision, although the content of their educational programs aren't known. It should be noted however, that these organisations should not be viewed as competitors, but rather as potential partners.

7.3 Unique Value Proposition

ERS invests our time, money and resources into providing a recycling collection service to Timor in order to create a cleaner environment, better local health and a strengthened local economy. We collaborate with local residents, staff and businesses as well as schools and the international community of Timor to provide a long-term sustainable service.

The unique value proposition of ERS lies in the many and varied services we provide. This includes the employment and close interaction with local Timorese in business operations, the collection and repurposing of recyclables, continually spreading awareness about the environment and the benefits of recycling through school and staff education workshops, actively researching and testing recycled product prototypes, and constantly iterating and improving our services based on feedback from locals to ensure we're providing a solution that addresses the local problem.

8.0 Operations and Logistics

8.1 Method of delivery of products and services

Our collection service is arranged on a customer-by-customer basis but is generally arranged on a business day. A truck is used, staffed by Project Everest personnel and a local Timorese driver of whom collect the recyclables disposed in designated bins. There may be a regular collection emplaced usually on a Monday or Thursday or an unscheduled pick-up that can be arranged 48 hours before collection is required. Customers can be accredited with certificates if requested to



indicate that they recycled to the general public. Stencils are also available to be marked on the designated bins.

In terms of the provision of our education workshops, PE trekkers take part in formulating and structuring the content to be shown to students, tailored to age group and education levels. As ERS is passionate about incorporating the local Timorese into the mechanisms of our business, UNTL interns are encouraged to help translate and present the content so as to portray the material in more relatable terms. New businesses that have requested ERS services are eligible to elect their staff members to undergo education workshops on the value and the process of recycling.

8.2 Means of production

Currently, the waste collected from customers are segregated and stored at a site adjacent to ERS headquarters. The truck used for the collection service is hired by the truck driver and is not parked nearby. Recyclable waste is on-sold or collected from separate parties to be repurposed. ERS intends to lease industrial land to set up a more efficient and appropriate centre for storing and repurposing recyclable waste. Ideally, the site would be between 50m²- 100m² situated around industrial land near Tibar. The land should be enclosed, lockable, easily accessed with a docking/parking area for a truck and a sheltered space to store recyclables and any relevant machinery. We are currently engaged with the Department of Land and Property Management who intend to provide technical assistance in our search for suitable land.

Contingent to prototyping, machinery for the effective repurposing of recyclable material would be necessary for ERS to produce reusable material for market consumption. A plastic shredder and an injection/blow mould machinery to transform hard plastic substances suitable for on-selling would be incorporated into operations. Standard-sized trucks appropriate for the collection of the amount of waste produced by customers are also vital aspects of the business model to ensure reliable service and to transport any repurposed materials as the business scales.



Alternate forms of capital inflow to support the means of production can also be realised through the implementation of ERS education workshops of which, if discussions to be had with Timor Foundation are successful, can translate to a paid service by educational institutions.

8.3 Supplies and suppliers

Business connections are unequivocally fundamental for successful capital accumulation. Sourcing the most cost effective and suitable supplies for operations are based upon fostering strong partnerships and comprehensive market and cost analysis. In terms of direct supply chains, our services are dependent upon the supply of proper OHS gear and materials to be able to handle the recyclable waste in an orderly fashion, i.e. gloves, hessian bags and protective goggles. Most of these materials are sourced from Leader Supermarket and various niche providers in industrial estates. Particularly, the supply of hardware for prototyping and machinery are scouted from a multitude of providers. The truck used for the collection service is owned by the employee, of which the upkeep and direct operational costs associated are the responsibility of said person.

Material for prototype development and on-selling are derived from our customers through our collection service. Aluminium, glass and plastics are then continued along the supply chain, repurposed for tangible reuse. Glass aggregates are to be used in brickmaking, thus supplying construction material for various companies domestically. Hard plastics are to be repurposed through a transformative process into sellable goods (i.e. furniture). Aluminium cans are readily on-sold and transfigured into similar products for markets.

8.4 Overheads

The most prominent projected overhead cost is the rent on land. Market prices indicate that the value of land greatly fluctuates in relation to zoning (\$2 per m² in residential zones to \$0.70 per m² in industrial zones). Having a space such as this would only be viable when we have 10 businesses on board, considering we intend to pay no more than \$100-\$200 per month. Currently we are operating at Paradises. Other variable costs not associated with direct expenses towards labour and materials include legal fees, utilities and a low tax rate of 0.5%.



8.5 Legal requirements

Project Everest is a registered business in Timor-Leste and hence adheres to all relevant legislation and licensing laws that requires Everest Recycling Solutions to operate under the Project Everest title (as mentioned in the Executive Summary). Project Everest additionally ensures that the requirements according to Timor-Leste's legislative framework have been met in regards to occupational health and safety, intellectual property rights and labour laws. Whilst such legislation is not relatively strong in Timor-Leste when compared to developed countries, Project Everest intends to set a precedent in occupational health and safety practices as well as respecting the rights of workers.

Any contracts issued by Project Everest have too been stringently revised and reviewed by the appropriate persons to ensure respective parties are fully aware of their obligations and rights. Contracts are to be reviewed by a lawyer and a translator, particularly for documents relating to local employees. They must clearly define responsibilities and entitlements. Taxes are also regarded as a necessary operating cost once ERS annual profit exceeds \$6000. To quote taxation payment guides, please observe the following link ([here](#)).

8.6 Insurance requirements

All official business relationships are checked by Group Leader and Project Everest executives to ensure the terms of agreement are suitable to both parties and that no unforeseen predicaments may arise from the wording of such documents. Continual revision of Timorese laws are vital in ensuring that PE operates in accordance to legislative expectations.

8.7 Employees

Should Everest Recycling Solutions be a viable business by the end of February, we intend to employ three Timorese in our absence: a truck driver, a segregator and a coordinator for the project. The truck driver is paid a flat rate of \$10 an hour of which includes the expectation that they provide their own truck of appropriate size and working condition as well as the means to run the vehicle. Rubbish collections routes should not exceed an hour's time to traverse (the exception with collection runs that extend slightly outside the Dili city limits). The segregator will



be paid \$1.50 an hour, and the coordinator will be paid \$2.50 an hour as he will be given a managerial role, and will be tasked with solving any issues that arise with truck drivers, segregators, land, customers, contracts or the business in general. The coordinator will pay the truck driver, segregator and himself and be reporting to Project Everest. Employees are paid monthly by the coordinator and payment is dependant upon their submitting time sheets of their work each week.

8.8 Organisational structure

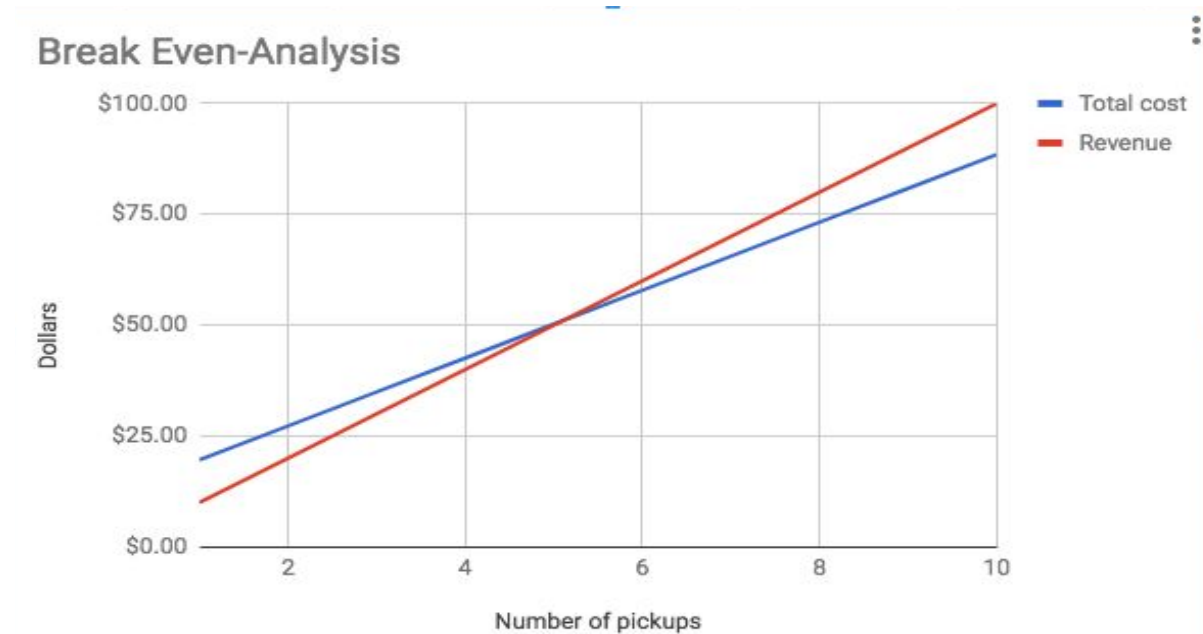
A concise chain of command and division of labour will exist within Everest Recycling Solutions' workplace. The truck driver for collection services and the segregator will be managed by a local Timorese coordinator. The coordinator's role will essentially be the intermediary between multiple parties including customers of the collection service, Project Everest and on-selling companies. Project Everest for the time being will be the final overseer of operations to ensure stakeholder and customer relationships are properly maintained and align with the objectives of the social business model.

9.0 Cost and Pricing Strategy

Our current pricing strategy is malleable to customer preferences in terms of collection size, frequency and individual circumstances. For large and medium businesses, \$10 per large pickup is instated and a smaller \$5 for the collection of small bins. Large bins are 100L and cost if bought through ERS \$70 whilst the small 40L bins are \$35. In some instances, a "bin bond" can be trialled whereby the customer is able to borrow the bin from ERS and then can either keep it if they continue the service or return the bin in exchange for bond money if services are discontinued.

Most of the restaurants and bars in Dili pay \$15 to the municipality for every pickup to collect the waste, segregated or not, with all the waste being dumped at Tibar. This enabled ERS to provide a cheaper service than the above price and indirectly benefits businesses through reducing the necessity for general waste collection services provided by the municipality. Continuing ERS cost analysis, collection would require no more than six customers at the rate of \$10 per pick up

considering operational and fixed costs. For customer drop-off services, a fee of \$7 is employed to cover operational costs. Greater detail on net and gross profit margins and thus ERS break even point, please reference the following link and/or observe the following table ([here](#)).



The average weekly revenue from current customers would need to exceed \$57.92 to break-even. Revenue produced past this point are initially directed into research and development, revenue tax and signage. Currently, we are producing a profit margin of \$2.08 (profit margin percentage of 3.4%) with six customers. If all current EOIs are translated to customer sales, (totalling in six), ERS profit margin would increase to \$16.16 weekly. The profit margin percentage is thus calculated at 13.4% for this figure.

The truck driver receives \$10 per delivery, regardless of time taken. The segregator would be paid \$1.50 per hour for four hours and the coordinator would be paid \$2.50 per hour for four hours. Total weekly wages amount to less than \$30 (accounting for coordinator, truck driver and segregator). The budget for leasing a facility was priced at a maximum \$200 per month for 50 m2 to 100 m2, preferably with a shed/warehouse on the site.

New financials would have to be established if the pickup days were more frequent, and the number of hours that the manager and segregator have to put in increases, or if a larger truck was necessary. The pickup price of \$5 a pickup might be too low, and can be renegotiated as \$7 or \$8 per pickup but that jumps up to the price EDS charges for general waste pickup which counteracts ERS value proposition as a cheaper service.

10.0 Financial Analysis and Reporting

The following financial reports were provided for information about the performance of ERS. Please see appendix B for these reports.

- Balance sheet,
- Cash flow statement,
- Break-even analysis,
- Income statement.

11.0 Contingency Strategies

Major risks to the current model and how to respond

Alternate Recycling Collection Systems

Whilst Everest Recycling Solutions is operating in a relatively unpopulated market in terms of competitors, some non-profitable modes of waste collection may have the ability to undermine our social business. Hopeseller in particular, though its operating state remains ambiguous, seemingly continues to perform in some capacity. However, a mitigating factor remains the organisation's inability to effectively repurpose recyclable waste, lacking a strong monetary base and innovative mechanisms to appropriately deal with the waste management situation in Dili. What defines ERS is its capacity for continual innovation and marketability of our repurposed recyclables. In itself, our value



proposition as a highly adaptable social business is what sets this organisation apart from other current providers of waste in the region.

Government initiatives exogenous to ERS may too undermine the business model. Although such responses from the public sector appear benign, close partnerships between ERS and respective government departments have been developed so that the organisation is positioned as a natural intermediary between government objectives in terms of waste service and meeting those requirements.

Employees

Another risk is price increases in rent or employees. Contracts have been written, checked by a lawyer and will be signed in order to mitigate this risk. A 15% contingency has also been included in the budget to account for any small variations that may occur. The prices quoted to the segregators, truck driver and manager were well received, which we take as meaning they'd be happy to work for that amount and wouldn't request a pay rise initially. The only point of contention is petrol to run the truck (estimated at \$3 per run - included in the truck drivers wage), and the number of hours spent segregating (this might increase dramatically if more restaurants are brought into the recycling service, however it is assumed that total income will rise as segregator hours rise).

Cultural Attitudes

A prominent long term risk is that there is no uptake to the larger Timorese community. Our previous model to spur market adoption of our services was to target expat business: though this method achieved our objective to increase company awareness, its traction was limited to making real changes to Timorese attitudes towards recycling. As a precursor to market entry and to mitigate this risk, free education workshops at schools, universities and the staff of onboard businesses have been run and will instill long term shifts in attitudes on the importance and necessity to recycle. Furthermore, ERS has



branched from its initial base and into the residential market, partnering with community leaders in Tasi Tolu and a church-run organisation, WEC International, to set up a recyclable waste drop off zone for residents. Fostering these relationships should prove advantageous in our pursuit of ensuring the wider Timorese community develops a keener appreciation for recycling.

Business Attitudes

Many businesses view paid recycling services as a hindrance to profit maximization. To curb this attitude, marketing strategies are constructed to portray the indirect costs of current models that degrade the environment and hence the economy. A strong undercurrent is present within the Timor-Leste business community that anticipates a rapidly developing tourism industry. When engaging with businesses, encouraging recycling is encouraging the view that a clean environment is a prerequisite to a thriving tourism industry. Also, in developing appropriate pricing strategies that reflect market prices, business objectives are then more closely aligned with the societal benefits derived from recycling.

Prototypal Failure

Despite promising outlooks towards our current prototype models, technical failure or a lack of market adoption poses a risk to business development. Stringent testing and continuous experimenting utilising various technologies and processes are proven safeguards to this.

Appendix A - Business Model Canvas

Appendix B - Financial Reports

Everest Recycling Solutions		
Statement of Financial Position		
as at 24 January 2018		
Assets		
Cash		\$170.00
Accounts receivable		\$0.00
Equipment - gloves		\$12.00
Accumulated depreciation	\$12.00	
Net assets		<u>\$170.00</u>
Liabilities		\$0.00
Equity		
Retained earnings		\$170.00
Total equity		<u>\$170.00</u>

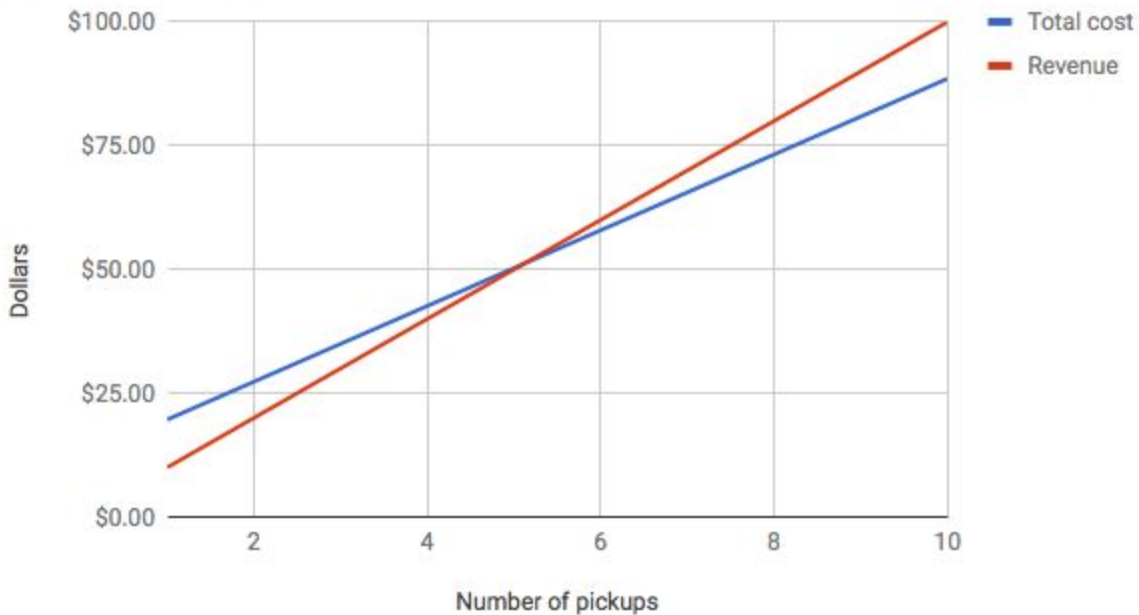
Notes:

¹ Gloves were assumed to be used for 1 month only.

Everest Recycling Solutions		
Statement of Financial Performance		
for the period ended 24th January 2018		
Revenue		
Sales		\$170.00
Gross Profit		
		<u>\$170.00</u>
Operating Expenses		
Printing Expenses	\$40.10	
Depreciation expense of Hessian bags	\$12.00	
Truck driver expenses	\$90.00	
EBDITA		
		\$27.90
Net income		
		<u>\$27.90</u>

Everest Recycling Solutions		
Statement of Cash Flows		
For the period 24 January 2018		
Cash Flows from Operations		
Net earnings		\$170.00
Deductions		
Wages		-\$90.00
Payments for printing		-\$40.10
Payments for Hessian bags		-\$12.00
Net Cash flow From Operations		
		<u>\$27.90</u>
Cash Flows from Investing		
Net Cash Flows from Investing		
		<u>0</u>
Cash Flows from Financing		
Net Cash Flows from Financing		
		<u>0</u>
Net Cash flows for the month ended 24 January 2018		
		<u>\$27.90</u>

Break Even-Analysis



The break even point from the graph is roughly between 5 and 6 bin collections, with a sales revenue of roughly \$50. Further calculation can determine exact figures:

1. The contribution margin was calculated to be roughly 2.35
2. The number of units at the break even point will then equal 5.11, which will then mean that 6 bin collections will be needed to at least break even
3. The sales dollars at break even point = $12/0.235 = \$51.06$

Notes:

¹ All the variable costs associated with this business are overheads. So the total variable cost is divided by the number of pickups as an assumption

² ERS aims to sell multiple products such as repurposed recyclables alongside with the collection of recyclables. However, since there weren't any sales of recyclables this month, it is impossible to determine its associated fixed and variable costs. Therefore the break-even analysis constitutes only of the bin collections.



³ The fixed cost of ERS is currently very low, with the assumption that gloves (totalling \$12) will be reused each month. However, when ERS expands through the acquisition of machinery, this value will rise.