

# 2ndLIFE

A social enterprise for reducing  
food waste in Indonesia



**Southeast Asia**  
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## Executive Summary

This report identifies sustainable development as an under-explored sector in Indonesia that offers potential for New Zealanders to apply their expertise in social entrepreneurship. We pitch a social enterprise called *2ndLife* that targets the issues of food waste and hunger by transporting surplus food from hotels to local charities. The purpose of the enterprise is to not only reduce food waste and feed the hungry, but also to generate awareness of the scale of these problems in Indonesia.

*2ndLife*'s business model will rely on local Indonesian charities, who will purchase the meals and provide them to people in need. *2ndLife* will source additional funding from New Zealand social enterprises with similar objectives in order to launch the services. The majority of profits will be invested in operational costs, such as refrigerated trucks, which are essential to ensure food safety.

*2ndLife* will launch in Jakarta and build brand credibility before expanding to the rest of Indonesia, and eventually into other Southeast Asian countries such as Malaysia. Partnerships with local hotels, charities, and companies will help *2ndLife* build a successful and sustainable operation that complies with Indonesian regulations. The company will also partner with New Zealand social enterprises for support and technical resources.

## Background

### Social Enterprise in NZ

A social enterprise is defined as a purpose-driven organisation that trades to deliver positive social, cultural and environmental impacts. Social enterprises seek to maximise profits while also maximising benefits to society and the environment, and as such they exist at the intersection between the private and voluntary sectors.

Social enterprises are often confused with charities, which are non-profit organisations that rely solely on donations and generally provide short-term solutions. In contrast, social enterprises can be either profitable or non-profit but have a more sustainable business model with a view for longer-term solutions. Since the 1990s, New Zealand has recognised the social economy as a third distinct sector, and the government has invested more than NZ\$5 million into its development.<sup>1</sup>

### Social Enterprise in Indonesia

The social economy is comparatively underdeveloped in Indonesia. In 2015, Indonesia's government introduced the National Entrepreneurship Draft Bill, which acknowledged the concept of social enterprises for the first time. The bill defined a social enterprise as a venture that has a vision to solve social problems and promote positive changes to the welfare of society and the environment by reinvesting the majority of its profit to support the mission. However, the lack of further and continued support after this bill was passed has resulted in investors prioritising economic gains over social impact.

Nevertheless, social enterprises in Indonesia are generating employment, supporting communities, and addressing inequalities. The number of full-time workers employed by social enterprises has increased by 42% from 2016 to 2017.<sup>2</sup> In 2019, the government signalled strong support for social enterprises at the

### Sustainability in Indonesia

Indonesia Development Forum, emphasising their role in economic growth and structural transformation and promising more focus on social enterprises between 2020 and 2024.

Today's understanding of sustainable development stems from a report called "Our Common Future 1987", which defined it as the ability to meet the needs of the present generation without compromising on the needs of future generations. In 2015, the United Nations (UN) created its Sustainable Development Goals (SDGs) as a universal call to address social and environmental issues and improve people's lives by 2030.

The two UN SDGs that 2ndLife will target are "Zero Hunger" and "Sustainable Cities and Communities". The former pledges to "end hunger, achieve food security, improve nutrition, and promote sustainable agriculture", while the latter aims to "significantly transform the way we build and manage our urban spaces".

In Indonesia, sustainability efforts are greatly focused on reducing the threats from climate change. Deforestation caused by the palm oil industry and air and water pollution are some of Indonesia's biggest sustainability issues. Over 25 million hectares of land are projected to be utilised for palm oil by 2025, which contributes to air and water pollution, as does domestic and industrial waste. Indonesia is estimated to generate over 190,000 tons of waste every day, and the majority is organic waste including degradable carbon (e.g., paper).<sup>3</sup> The scale of this problem is evidenced by the nearly two million people making a living through trash picking. These issues can be addressed to a certain extent by the public and entrepreneurs, but solving them will ultimately also require immense governmental support.

## The Food Waste Problem

One of the main sustainability issues that affects Indonesia is food waste, which has financial, ethical and environmental costs. Food that is safe for human consumption may be discarded if food has expired, or if supply is greater than demand. Globally, one-third of all food produced is wasted or lost, and only one-quarter of this loss is needed to end world hunger.

The Economist Intelligence Unit indicates that Indonesia is the second-largest producer of food waste in the world.<sup>4</sup> The country wastes approximately 13 million tonnes of food annually, which could feed roughly 28 million people. At the same time, 19.4 million Indonesians are unable to meet their daily dietary needs and 7.6% of the population is malnourished.<sup>5</sup> The juxtaposition of this huge food waste with a large number of people living in hunger presents an opportunity for a social enterprise to reduce both problems.

Indonesia's government has previously acknowledged the low level of public environmental knowledge and awareness in the country, and has legally committed to the provision of Environmental Education by joining the United Nations Decade of Education for Sustainable Development 2005 - 2014. However, Indonesia still has a significant way to go to reach its sustainability goals.



## Business Proposal

### The purpose of 2ndLife

2ndLife is a social enterprise that connects producers of surplus food to the hungry through partnered charities in Indonesia. It aims to address issues of food poverty and food waste, by offering high-end hospitality venues such as hotels a service that sustainably handles surplus food on their behalf.

In Indonesia, food prices are 50-70% higher than in neighbouring countries and general environmental awareness tends to be low. Thus, the purpose of 2ndLife is two-fold:

- To equalise access to food by redirecting surplus food from high-end hospitality services to the hungry; and
- To promote environmental awareness and education around food waste and sustainability issues through public participation.

### Why hotels in Jakarta?

2ndLife will launch in Jakarta, which is Indonesia's largest city and economic centre, with an estimated population of over 10.8 million. Globally, hotel kitchens dispose of around 25% of food produced as they tend to over-cater in order to maintain customer satisfaction.<sup>6</sup> It is more profitable for hotels to produce large amounts of food waste rather than risking not having enough food stock.

Jakarta is chosen because of its concentration of hotels in close proximity to people living in food poverty. The city ranks third in the Asia-Pacific region for hotel development growth, and more than 373,000 people in Jakarta were living below the poverty line in 2018.<sup>7</sup> The proximity of a large number of hotels and underprivileged communities creates an opportunity to transport and use surplus food efficiently to reduce hunger.

**How will  
2ndLife work?**

2ndLife will source untouched surplus food from partner hotels to generate and provide free, high-quality meals for the hungry through a three-step operating process: collect, process and deliver.

*Step 1: Collect*

The collection process must be frictionless to incentivise hotels to partner with 2ndLife. Surplus food will be collected from the hotels' breakfast buffets every morning. To accommodate differing breakfast service hours, hotels will have the opportunity to pre-arrange a designated collection time with 2ndLife through the instant messaging platform WhatsApp.

Refrigerated trucks will collect the surplus food from the hotel at the designated time. In order to comply with food safety regulations, the temperature inside the trucks will remain 4°C or below.

*Step 2: Process*

While the type of food sourced from hotels may not always suit the tastes and preferences of local people, 2ndLife's main goal is to provide high-quality food that meets peoples' nutritional needs.

The collected food will be transported from hotels to a processing hub for inspection by specialised staff. Inspecting the food for quality and perishability is vital to ensure it is safe for human consumption and fit for delivery.

Following the inspection, the food will be sorted into trays in preparation for delivery. Reusable metal trays will be used rather than paper or plastic takeaway containers to ensure 2ndLife does not add to Indonesia's waste management problem.

*Step 3: Delivery*

Refrigerated trucks will deliver surplus food to charities such as non-governmental organisations, mosques, churches and social foundations. Jakarta's traffic congestion is a key challenge that 2ndLife will have to overcome. Food will be delivered between

1 - 4pm to ensure the food arrives in time for dinner. Operating within these times and only partnering with charities in close proximity to hotels will reduce the impacts of traffic. 2ndLife will also partner with Gojek, the largest motorcycle taxi company in Indonesia, to achieve last-mile delivery to more remote destinations.

**Key operational  
considerations**

The following operational considerations will be important to 2ndLife's success:

- Only Halal food will be collected, since over 87% of Indonesians are Muslim.
- Collection and delivery services will operate mostly at off-peak traffic times to avoid the worst traffic congestion.
- Marketing must reduce the negative connotations that identify the food from hotels as leftover foods (“*makanan sisa*” in Bahasa Indonesia). The social benefits of the initiative should be emphasised.
- Indonesia's hot climate may affect food quality during transportation, so 2ndLife will partner with hotels that are closer to the processing hub.
- To comply with local food regulations, 2ndLife will have a team of food inspectors at the processing hub and purchase refrigerated trucks with temperature-controlled storage.

## Indonesian Partnerships

The 2ndLife model relies on partnerships with hotels, charities and local enterprises in Indonesia. Partnerships must provide mutual benefits to all participating parties for the model to succeed.

Hotels are the primary source and provider of surplus food for 2ndLife. Partnering with 2ndLife will give hotels the opportunity to be proactive in mitigating environmental and societal impacts, earning them tangible benefits such as efficiency gains and an enhanced corporate reputation. In 2015, a study by The Nielsen Company found that 66% of global respondents would pay more for products and services from companies committed to making a positive social and environmental impact.<sup>8</sup>

2ndLife will look for hotels that have a demonstrated commitment to reducing their environmental impacts and a year-round, steady supply of surplus food (i.e., buffet). Hotel partners must also be willing to allow 2ndLife workers in their kitchens to salvage food.

One example of a potential hotel partner is Marriott Hotels, an international hotel chain with over 30 brands. Current initiatives include gaining LEED (Leadership in Energy and Environmental Design) green building certification for 650 of their hotels. A second example is Hotel Borobudur Jakarta, which received the ASEAN Green Hotel Award from 2014 to 2016 and an award at the Indonesia Sustainable Tourism Awards in 2019. Other examples of 'green' hotels include Grand Hyatt Jakarta and Dharmawangsa Jakarta.

Rather than directly feeding the hungry, 2ndLife's role is to partner with charities that are willing to act as the intermediary. It is essential for social enterprises to have local partners to navigate the challenges of the Indonesian business environment such as uncertainty, corruption, lack of infrastructure, complex bureaucracy and lack of transparency.

Partner charities must have a regular meal service as part of their operations, and they will ensure meals are distributed to the most appropriate people. Charities will benefit from access to inexpensive, quality meals, as well as from 2ndLife's international connections and access to the New Zealand business environment.

Examples of charities that could distribute food include:

- Rumah Piatu Muslimin, a Central Jakarta orphanage home to 62 children; and
- Ronald McDonald House Jakarta, which provides a "home away from home" for up to 12 inpatient paediatric patients and their families.

XSProject is a potential local partner that could help us identify other suitable charities to which we could distribute food. This social and environmental non-profit focuses on transforming consumer and corporate waste into reusable products. The similar nature of XSProject and 2ndLife and their mutual dedication to sustainability initiatives presents an opportunity for a meaningful partnership.

WhatsApp will be our main communication platform with partnered hotels and charities. According to 2017 figures, 40% of Indonesians use WhatsApp, which means partners will not need to acquire any new technology or adopt new behaviours.



## New Zealand partnerships

Working with food waste in Indonesia provides New Zealand with an opportunity to apply its experience in surplus food management. Examples of social enterprises in New Zealand that tackle food waste and hunger include Everybody Eats, KiwiHarvest, Kaibosh and Just Zilch.

Each of these organisation's business models are different, and 2ndLife will most closely replicate KiwiHarvest's model. KiwiHarvest collects food from growers, manufacturers, wholesalers and retail food businesses and then uses refrigerated trucks to redistribute it to charities and social service agencies. KiwiHarvest expanded its operations from its Dunedin base in 2012 to five cities nation-wide, which has helped them deliver over 9.1 million meals to 280 recipient charities, while saving 3.2 million kgs of food and reducing carbon emissions by 12.8 million CO<sub>2</sub>e (carbon dioxide equivalent).<sup>9</sup>

2ndLife will strike a partnership with KiwiHarvest in order to use its expertise to tackle surplus food management on a much larger scale. These partnerships will also help promote New Zealand as a global leader in sustainability, and potentially create additional opportunities for New Zealand social enterprises wanting to enter the Southeast Asian markets.



## Business Plan

### Phase 1: Planning and Launch

Once 2ndLife has established a network of New Zealand and Indonesian partners, operations will be launched. The key areas of focus during this stage will be:

- Refining operations: Optimise pickup, processing and delivery processes to minimise time and cost in an environment different to New Zealand, where the operational models were developed.
- Managing relationships with partners: Ensure the level of service provided by 2ndLife meets their expectations and continue to develop long term relationships.
- Regulatory compliance: Ensure 2ndLife is complying with domestic food safety regulations and laws to meet its legal requirements and provide a safe food service.
- Outreach: Continue to identify, target and reach out to further potential partners.

Just like for-profit businesses, social enterprises require initial capital contributions to launch their operations. By leveraging existing donor networks, New Zealand social enterprises are well-suited to help facilitate 2ndLife's initial fundraising.

To raise the capital needed for launch, 2ndLife will use the business model made popular by the Californian shoe company, Toms Shoes (stylized as TOMS). For every pair of shoes sold in developed markets, TOMS provides a free pair of shoes to a child in need. 2ndLife will deploy a similar model that would mean for a period of time, every meal sold in New Zealand by partners such as Everybody Eats, will donate the price

of an average meal in Indonesia to our funding pool. Our target is to raise NZ\$50,000 in year 1 to cover the cost of one refrigerated truck and our first year of operating costs.

Other funding alternatives may include directly seeking donations through capital campaigns in New Zealand and Indonesia, applying for government or charitable grants, and donations from hotel partners. According to the Charities Aid Foundation World Giving Index, Indonesia is the most generous country for giving, which may help social enterprises seeking donations or grants.<sup>10</sup>

## Phase 2: Financial Sustainability

Once 2ndLife has established its operations, the core source of revenue for 2ndLife will be the sale of meals salvaged from the surplus food production of hotel buffets. The target price of the meals would be around NZ\$1, or Rp (Rupiah) 9,000. The cost of meals must be less than the average cost a charity would spend to prepare a meal themselves to incentivise charities to partner with 2ndLife.

A key factor for the success of 2ndLife is the ability to source food from hotels at no cost. Hotels may be willing to provide food for free to 2ndLife to reduce their carbon footprint and create a more sustainable brand image.

Our financial model suggests that by Year 3, 2ndLife will be financially sustainable (see Table 1), with a target of delivering 300 meals per day, which will cover all fixed operating costs and save 10% of revenue for future growth.

**Table 1: Financial Projections for Years 1 – 3.**

|   | <b>1 Year 1<br/>(50 meals)</b> | <b>Year 2<br/>(150 meals)</b> | <b>Year 3<br/>(300 meals)</b> |
|---|--------------------------------|-------------------------------|-------------------------------|
| <b>Labour Costs</b>                         | Rp 50m                         | Rp 100m                       | Rp 170m                       |
| <b>Facility Costs</b>                       | Rp 90m                         | Rp 190m                       | Rp 350m                       |
| <b>Transport Costs</b>                      | Rp 100m                        | Rp 180m                       | Rp 320m                       |
| <b>Depreciation of fixed assets (truck)</b> | Rp 40m                         | Rp 40m                        | Rp 40m                        |
| <b>Sundry Costs</b>                         | Rp 30m                         | Rp 30m                        | Rp 30m                        |
| <b>Total Costs</b>                          | Rp 310m                        | Rp 535m                       | Rp 910m                       |
| <b>Revenue</b>                              | Rp 165m                        | Rp 490m                       | Rp 990m                       |
| <b>Net surplus</b>                          | Rp -145m                       | Rp -45m                       | Rp 80m                        |

## Phase 3: Expansion

After the company has achieved financial sustainability, a detailed plan will be developed for further growth. 2ndLife may have opportunities to scale by diversifying its surplus food sources to other hospitality industries like bakeries and restaurants. Similarly, 2ndLife could also grow by expanding its geographic scope once a successful business model is tested.

There is also an opportunity to introduce an app to manage the supply and demand for food, which could increase the efficiency of operations and help us reach more people in need.

## Other Considerations

### Measuring Social Impact

The positive social impacts of 2ndLife in Indonesia will be measured using the following metrics:

- the number of meals saved from a landfill;
- the estimated reduction in carbon emissions (according to Kaibosh’s 2017/18 annual report, the carbon impact of saving 1 kg of food is 0.78 kilograms of carbon); and
- the number of people who receive 2ndLife meals.

While difficult to quantify, 2ndLife will also raise awareness of sustainable practices in Indonesia, and it has the potential to create opportunities for other social entrepreneurs to enter the region.

### Marketing

Marketing and establishing 2ndLife’s brand identity will be critical to its early success. Indonesia has one of the largest social media markets in the world, with 56% of its population currently online. The large consumer base of social media apps such as Instagram and Facebook means there is an active social marketplace for small businesses in Indonesia. A survey by Ipsos in 2018 indicated that 81% of Instagram users in Indonesia used the app to learn more about brands that interested them.<sup>11</sup>

2ndLife will use social media apps as its primary marketing platform to gain exposure and attract audiences and partners such as new hotels, charities, volunteers and potential sponsors both within and beyond Jakarta. Marketing will focus on sustainability and social and environmental impacts to combat the negative stigma attached to the consumption of leftover food in Indonesia. The existing stigma may be a barrier for 2ndLife, so the service must be promoted in terms of other benefits such as carbon emission reductions, decreasing waste and fighting food poverty.

### Legal requirements

Indonesia has several food safety regulations including *Act 18/2012 on Food and Government Regulation No. 28 of 2004 on Food Safety, Quality and Nutrition*, which controls contaminated food, sanitary requirements and food quality guarantee. In addition, the government has established the National Agency for Drug and Food Control to oversee the food sector.

To comply with local food regulations, 2ndLife will employ two full-time qualified workers to inspect distribution channels, monitor food handling, and conduct investigations when necessary. Additionally, the processing hub will be under 24/7 surveillance. Furthermore, to ensure the safe distribution of food, tight controls will be placed on the environment in which food is delivered and stored. For example, refrigerated trucks will immediately begin to cool food upon collection, which will reduce the risks of bacterial contamination. Food that is not cooled within two hours of being served in the hotel’s buffet will be discarded. Staff will also use methods of loading and unloading food that conform with Act 18/2012.

Existing legal frameworks for charitable organisations outline the procedures for establishment, permissible sources of funding, and the management support of foreign legal entities. Charities have 22 days to gain authorisation, and they must ensure that at least three people are involved in the establishment stage of the organisation. Furthermore, the Community Organisation Law and Ministry of Law and Human Rights Regulation (MOLHR) No. 6 of 2014 on the Legalisation of Associations’ Legal Entity Status states that a community organisation must follow and submit to the MOLHR to become established and legalised by the MOLHR.

Once established, 2ndLife will be regulated by the Ministry of Home Affairs, which may require an “organiser” to assist if certain thresholds are reached. These may include working in at least 25% of the district in one regency or city, in the total provinces or the regency, or in one province of Indonesia.<sup>12</sup> 2ndLife will be subject to taxation under Law No. 7 of 1983 on Income Tax, as amended by Law No. 36 of 2008 on Income Tax (Income Tax Law).

## Volatility in food supply

A key challenge for 2ndLife could be the inconsistent nature of the food being supplied by hotels. Since their customer demands will fluctuate daily, hotels may not have the ability to provide a consistent quantity of surplus food. To mitigate this risk, 2ndLife will partner with multiple hotels to reduce the volatility in food supply.

## Conclusions

New Zealand entrepreneurs have an opportunity to use an existing New Zealand model for reducing food waste and hunger to combat these social issues in a larger and more complex international setting – Indonesia. The Indonesian government’s commitment to growing social enterprises makes the timing right to replicate this model in that country.

The name 2ndLife symbolises our vision of providing food a second life and people with another chance for a healthy meal. On a larger scale, the ultimate aim of 2ndLife is to help Indonesia meet the Sustainable Development Goals of 'Zero Hunger' and 'Sustainable Cities and Communities', which will help enhance people’s lives while preserving the natural environment.

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