

## Access to affordable working capital for SayurBox’s smallholder farmers in Indonesia

### 1. DEVELOPMENT RELEVANCE

#### Economic and poverty context

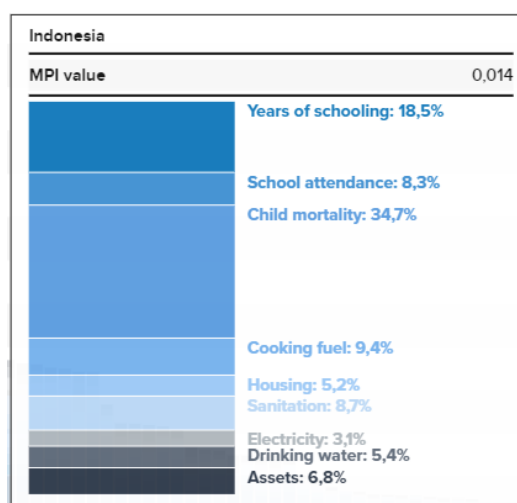
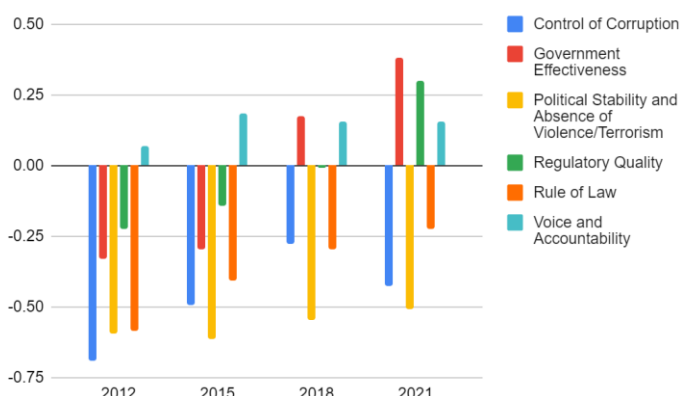
With a population of 276.4 million (as of 2021), Indonesia is the fourth most populated country in world. The Indonesian economy has been growing steadily despite the COVID-19 crisis. In 2021, the GDP increased to 3.7% compared to -2.1% in 2020. The inflation rate in 2021 was flat with only 0.3% difference compared to the inflation rate of 1.9% in 2020. As per the Economic Freedom Index, Indonesia ranks 63rd out of 168 countries, and the index has reduced by 2.5 points after the pandemic. Poverty in Indonesia has declined with rapid growth of the GDP per capita at USD 4,291.8, a Gini index of 37.9 and international and national poverty rates steadily decreasing in recent years.

Indonesia’s governance indicators<sup>3</sup> have fluctuated for the few past years due to political and regulatory changes. In Indonesia, corruption is a significant development issue that has a negative impact on the economy and society. The Control of Corruption indicator has shown a negative trend since 2012 until 2021, given the frequent corruption cases by state and private elites. The lowest point of corruption prevention was in October 2019, when the Corruption Eradication Commission Law (KPK) was revised to reduce KPK’s independent status by making it a governmental body.<sup>4</sup> Besides corruption, other governance indicators have shown slight improvement in the recent years.

Indonesia is a low-middle income country with a Multidimensional Poverty Index of 0.014. In 2021, 10.1% of the population was living below the national poverty line.<sup>6</sup> Low levels of education and school attendance as well as a high prevalence of child mortality are some of the key factors contributing to poverty in Indonesia.

Table 1 <sup>1</sup> : Population and economic indicators	
Population in million (2021)	276.4
GDP growth (2021)	3.7%
Inflation (2021)	1.6%
Trade balance (% of GDP) (2021)	2.7%
Foreign direct investment (net) (% of GDP) (2020)	1.8%
Net ODA received (% of GNI) (2020)	0.1%
Remittances received (% of GDP) (2020)	0.9%
Economic Freedom Index <sup>2</sup> (Rank among 186 countries) (2022)	64.4
Poverty indicators	
GDP per capita (USD) (2021)	4,291.8
Gini Index (0= equality 100= inequality) (2021)	37.9
International poverty rate (2021; at 1.90 USD/day)	3.5%
National poverty rate (2020)	9.8%
National rural poverty headcount rate (year)	%

Governance Indicators, Indonesia 2012-2021



Multidimensional poverty index chart<sup>4</sup>, (Indonesia, 2022)

<sup>1</sup> The World Bank Group (2022). World Development Indicators database. Washington, DC. <http://data.worldbank.org>. Accessed (04-11-2022)

<sup>2</sup> Heritage Foundation, (2022) Index of Economic Freedom, <http://www.heritage.org/index/ranking> Accessed (11-04-2022)

<sup>3</sup> The World Bank Group (2022). Worldwide Governance Indicators database. Washington, DC. <http://databank.worldbank.org>. Accessed (04-11-2022)

<sup>4</sup> East Asia Forum, (2020) The Weakening of Indonesia’s Corruption Eradication Commission, <https://www.eastasiaforum.org/2020/01/28/the-weakening-of-indonesias-corruption-eradication-commission/> Accessed (20-11-2022)

While the infant mortality rate has been decreasing over the past few years, a mortality rate of 20 per 1000 infant births (as of 2020<sup>4</sup>) is still a huge number. This results from maternal complications, access to and quality of healthcare, and socioeconomic and behavioural factors.<sup>7</sup> Climate change also has an impact access to water, health, and nutrition, disaster risk reduction, and urban growth, especially in coastal areas, resulting in inequality and poverty.<sup>8</sup>

**Financial sector context**

Indonesia’s national strategy for financial inclusion focuses on providing appropriate services and products and responsible finance through financial education and consumer protection.<sup>9</sup> The efforts to enhance financial inclusion are strengthened by laws and regulations such as the President Regulation number 82 (2016) and by the Otoritas Jasa Keuangan (OJK). This regulation aims to overcome the problem that there are still many Indonesians who do not have access to modern financial services. For instance, only 47.72 million Indonesians are estimated to have digital bank accounts.<sup>10</sup> Additionally, only 15% of smallholder farmers can access bank credit.<sup>11</sup>

Indonesia’s financial inclusion index has risen from 76.19% in 2019 to 85.10 % in 2022.<sup>12</sup> Innovation in finance is promoted by the Indonesian FinTech Association (AFPI), which aims to advance FinTech peer-to-peer (P2P) lending and web-based FinTech businesses in Indonesia.

**Financial sector partner**

**SayurBox** is an agri-produce distribution platform bringing fresh vegetables directly from farms to the table. SayurBox’s distribution platform enables consumers to order fresh, chemical-free and organically produced vegetables directly from farmers, enabling them to consume high-quality vegetables which are harvested and delivered on the same day. Sayurbox provides post-harvest financing in conjunction with AwanTunai to enable farmers to receive proceeds from the sale of harvest sooner.

Sayurbox’s mission is to become the most efficient food supply chain company in Indonesia powered by digitisation. The aim is to provide business sustainability for its farmer partners by ensuring that they have access to fair market prices by being able to sell directly to consumers via the “farm to table-top” logistics system and providing access to affordable working capital.



*Image 1. Sayurbox’s farmer network spans from Java Island to Bali and East Indonesia, Lombok, with more than 5,000 farmers connected to the AwanTunai’s ecosystem.*

<sup>5</sup> The World Bank Group (2022). World Development Indicators database. Washington, DC. <http://data.worldbank.org>. Accessed (25-11-2022)

<sup>6</sup> Asian Development Bank (2022). Poverty Data Indonesia. <https://www.adb.org/countries/indonesia/poverty/>. Accessed (20-12-2022)

<sup>7</sup> UN IGME. Under-Five Mortality Rate – Total. <https://childmortality.org/data/Indonesia>. Accessed (20-12-2022)

<sup>8</sup> The World Bank Group (2022). The World Bank in Indonesia <https://www.worldbank.org/en/country/indonesia/overview#1> (20-12-2022)

<sup>9</sup> Bank Indonesia (2022) Financial Inclusion, <https://www.bi.go.id/en/fungsi-utama/stabilitas-sistem-keuangan/keuangan-inklusif/> Accessed (04-11-2022)

<sup>10</sup> Bank Indonesia (2021) Proyeksi Pengguna Bank Digital RI <https://dataindonesia.id/digital/detail/pengguna-bank-digital-ri-diproyeksi-capai-75-juta-pada-2026> Accessed (20-12-022)

<sup>11</sup> Pusat Ekonomi LIPI (2017). Survei Sosial Ekonomi Nasional sirusa.bps.go.id/sirusa/index.php/dasar/view?kd=1558&th=2020 Accessed (20-12-2022)

<sup>12</sup> Otoritas Jasa Keuangan (2022) National Survey on Financial Literacy and Inclusion [https://ojk.go.id/en/berita-dan-kegiatan/publikasi/Pages/National-Strategy-on-Indonesian-Financial-Literacy-\(SNLKI\)-2021---2025.aspx](https://ojk.go.id/en/berita-dan-kegiatan/publikasi/Pages/National-Strategy-on-Indonesian-Financial-Literacy-(SNLKI)-2021---2025.aspx) Accessed (20-12-2022)

## 2. INTERVENTION APPROACH

### Capacity-building needs

While SayurBox has allowed farmers to obtain fair market prices for their produce, traditional micro-farmers in Indonesia still struggle to access formal credit support from financial institutions due to onerous compliance requirements to qualify for bank credit. The intervention funded by SCBF enabled AwanTunai to build SayurBox's technical capacity to adapt data capture and risk assessment systems for the upstream micro-farmer segment. Additionally, the project was to focus on expanding to Sumatra. However, this was put on hold as SayurBox had to focus on creating sustainable profitability on their core market region (Java Island).

### Main activity areas (goals, targets, resources & timeframe) and outputs

1. In the initial stages of the project, the focus was on preparing the basic system infrastructure by providing and enabling the adoption of a basic loan origination app and testing it with farmers and off-takers. This was done using the AwanTunai system which provides loans directly to the supplier for inventory financing. In this case, SayurBox was the agri-offtaker to prevent any issues around inappropriate utilisation of the disbursed loans.
2. AwanTunai targeted West Java as an initial target market and prepared for upscaling by implementing semi-automatic credit risk analysis and fraud model functions to replace those traditionally handled by field staff, resulting in the acquisition of 100 farmers.
3. The product was then expanded to secondary areas in West Java to strengthen market position. A total of 300 farmers were successfully onboarded.
4. With the help of a dedicated field team to handle the pilot project, the product was rolled out in Central Java. However, the target to reach 500 farmers by November 2021 was not met as the COVID-19 Delta strain put a hold on the marketing campaigns and trainings for the field-level sales team.
5. AwanTunai continued with product expansion to East Java and onboarded 1000 farmers without any challenges as a relationship with the farming community was already established.
6. By onboarding 2,000 farmers, AwanTunai was able to enhance the credit scoring and fraud detection modules and ultimately enabled the provision of lending products at scale.
7. The next major step was to launch sales and marketing channels in Sumatra, however this did not go according to plan as SayurBox had not yet expanded to the Sumatra region. Therefore, AwanTunai shifted their focus to Bali and Lombok. The project successfully onboarded 5,061 farmers (cumulative since project start).

## 3. RESULTS ACHIEVED AND NOT ACHIEVED

### Client-level

The overall goal of this project was to responsibly scale up small affordable and sustainable working capital to the MSME farmers with SCBF's intervention.

Most financial institutions are hesitant to underwrite unbanked clients because of limited credit data. Thus, by adapting underwriting methodologies and applying them to the traditional micro-grocery market of SayurBox, AwanTunai has successfully contributed to promoting financial inclusion of the unbanked. AwanTunai provided critical expertise in credit modelling through this project. As a form of invoice financing, AwanTunai provided upfront loan payments (up to 110% of the value of the invoice) to farmers who delivered their produce to SayurBox, while the loan repayment was managed by SayurBox. By lending in excess of the invoice amount, AwanTunai helped farmers to grow as they could access additional capital upon each harvest. The excess 10% was repaid directly by the farmers or rolled on to the next invoice as a partial pre-payment for the next harvest.

Traditionally farmers sell their produce to the middlemen who aggregate produce from various farmers based in the same area. As the prices are usually determined by the middlemen, farmers usually have a low profit margin. But farmers connected via the SayurBox ecosystem have an improved quality of life as they receive fairer price for their produces.

Some farmers benefit from having SayurBox safely store payments for their produce until the end of the month if they opt in to receive monthly payments instead of weekly.

The below table illustrates the price difference in farmers selling to SayurBox vis-à-vis to middlemen:

Table 1. Differences in the prices farmers receive from SayurBox versus middlemen. Smallholders make an average of of Rp 57,133,333 more through SayurBox.

Selling price per kg (Rp)					
Farmer	Item	Quantity per month (kg)	To middlemen	To SayurBox	Income Difference (Rp)
Iwan	Tomatoes	12,000	11,000	16,000	60,000,000
Andi Mangunkerta	Bok choy	5,900	10,000	20,000	59,000,000
Yayan	Broccoli	8,300	18,000	36,000	14,940,000
H. Mansur	Small pumpkin ( <i>labu siam</i> )	6,600	1,000	2,000	6,600,000
Atep	Cabbage	2,700	8,000	18,000	27,000,000
	Timun	10,200	4,000	8,000	40,800,000

From 2020 to 2022, the volumes of produce ordered through SayurBox have grown 400%, while the number of farmers served by SayurBox with advance payments financed by AwanTunai grew from 500 to 1,300 (including approx. 5% women). However, AwanTunai have acquired 5,061 in total throughout the pilot project, of whom 10% are women.

Table 2. Count of farmers per region including gender breakdown. The numbers of women farmers are low as traditionally the farming industry in Indonesia is dominated by men.

Breakdown of farmers served by region					
Region	Male	Female	Total	% female	% male
West Java	1945	227	2172	10.45%	89.5%
East Java	633	21	654	3.2%	96.7%
Central Java	589	41	630	6.5%	93.5%
D. I. Yogyakarta	24	0	24	0%	100%
Banten	488	71	559	12.7%	87.3%
Bali	496	51	547	9.3%	90.7%
West Nusa Tenggara	376	99	475	20.8%	79.2%

### Client story

Ibu Gini is the main breadwinner in her family and has felt the economic benefits of partnering with SayurBox since early 2018. Her story is like most farmers in the Lembang region, who usually sell to the middlemen for lower prices than in the market and receive payments only during the next harvest. Since she started selling to Sayurbox, she has been able to receive payments only two weeks after the harvest, and with SCBF's support, SayurBox was able to make the payment process even faster. This has allowed Ibu Gini to provide better financial stability for her family thanks to the fair prices offered by Sayurbox, and timely invoicing through the upfront loan payments developed by AwanTunai.

Ever since she joined SayurBox, Ibu Gini started planting kale and she believes that "kale is the best vegetable to harvest because it lasts long and you don't need to harvest the whole plant, just pick the leaves required for the purchase order from SayurBox."

Her story highlights that platforms such as SayurBox can efficiently enable farmers to directly supply to end-consumers.

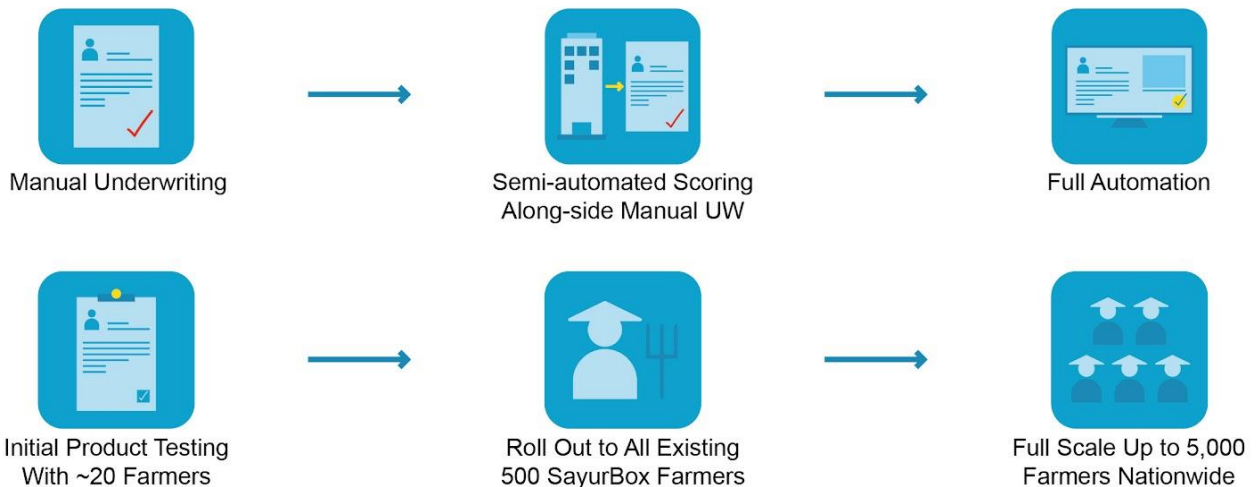


*Ibu Gini, a farmer from Lembang, Bandung in West Java pictured outside her greenhouse.*

As SayurBox receives 110% of their invoiced amount and can pay farmers faster than conventional methods, there is no immediate plan to provide pre-harvest financing. Additionally, since the third quarter of 2022, they have been piloting the provision of fertilisers and seeds to 100 farmers.

**4. LESSONS LEARNT**

In the first year of implementation, AwanTunai helped deploy an operational micro-lending product along with a credit model and supporting processes for farmers in Java, targeting around 500 users. The second year of implementation focused on improving the credit model launched in the previous year with an aim to expand to other provinces. Besides building a new sales channel, AwanTunai also built faster integration infrastructure to enable a wider ecosystem of supply chain partners to integrate with the platform as well as to further validate and ensure that the various models are in line with standards required by the banks.



*Illustration of the operational development during the project implementation.*

The design and implementation were effective among SayurBox partner farmers due to farmers' satisfaction as they received a fair price and payments immediately during the delivery of produce. Additionally, some farmers opted to have their payment deployed at the end of every month, so they could feel the impact of the profits more strongly rather than receiving multiple payments during each delivery cycle. This also potentially helps them build up their credit profile for accessing loans in the future.

The key lessons that AwanTunai has learnt during this project include:

1. It was important to have SayurBox as both the agri-offtaker and financial sector partner due to the negative reputation of FinTechs in Indonesia. This was compounded by the challenges in obtaining ID information from farmers as many of them were afraid that their data would be misused by "loan sharks".
2. The project also needed to leverage help from middlemen to manage and aggregate harvest from farmers as not all farmers had access to transport to bring their produce to the market. The middlemen received a share of the profits in return for their services.
3. A non-financial feature in the AwanTunai app called *catatan penjualan* was developed to help farmers record sales and determine their monthly profits. It was developed to help farmers build an understanding of good financial habits to address the challenges in implementing effective financial literacy campaigns for the mass unbanked demographic. However, farmers did not use this feature consistently, primarily as some of them had outdated phones with limited storage space or lacked a habit of record-keeping.
4. The team found that that farmers with SayurBox can build a better socio-economic status as opposed to those not in the SayurBox's ecosystem, as their primary struggle receiving a fair price and accessing a stable market for their harvest. Additionally, Sayurbox's "hub and spoke" logistics solution with mini warehouses located near farming communities has helped farmers to get closer to the market as opposed to those who rely on the middlemen.

The project also faced various challenges during the two years:

1. Creating a rapport with farmers was a challenge, hence the team had to leverage connections with middlemen to create trust and build relationships with the farming communities.
2. With the current economic condition, SayurBox needed to keep the business sustainable and thus focused on their core market region (Java Island) to create profitability instead of expanding to Sumatra. Additionally, Eastern Indonesians' limited experience with technologies like smart phones compared to Bali and Java Island was also a challenge. However, this was addressed by emphasising the non-financial features of the mobile app, such as *catatan penjualan* to record harvest sales.
3. Traditionally, most smallholder farmers in Indonesia are men. But in a typical household, both the husband and wife run the business. The men focus on financial management and sales, and the women help manage the day-to-day operations. AwanTunai ensured that the trainings with farming communities included both the husband and wife to prevent gender-based discrimination.

Scaling up affordable financial inclusion is primarily about being able to manage risk. Low risk means low defaults which allow for low interest rates; hence it was critical having SayurBox as the agri-offtaker to achieve the goal of expanding access to affordable financing and building up the credit profiles of smallholder farmers. Additionally, given SayurBox's credibility with farmers, the company is well-positioned to expand nationally soon. SayurBox and their farmers would benefit from SCBF's support in the future to undertake financial education campaigns alongside enhancing farmers' digital literacy. This would also encourage and create interest in young people to work in the agricultural sector.