



The 3rd Qualitative Assessment of Reusable Food Packaging (Monitoring & Evaluation period - November 2022) Case study: Allas by Enviu, Indonesia

December 2022

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Prepared for the Collaborative Actions for Single-Use
Plastic Prevention in Southeast Asia (CAP SEA) Project

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EXECUTIVE SUMMARY

The Collaborative Actions for Single-Use Plastic Prevention in Southeast Asia (CAP SEA) project that is implemented in Indonesia aims to contribute to the achievement of Indonesia's target of reducing plastic and packaging waste. For this purpose, a pilot project is carried out to implement a business model. The pilot project was launched in Jakarta City to reduce single-use plastic (SUP) packaging waste in the Food and Beverage (F&B) sector. As part of the pilot project, the start-up Allas offers reusable packaging as an alternative to SUP packaging for ready-to-eat food deliveries.

The Collaborative Actions

The objective of this study is to provide an understanding of reusable packaging business model, reflecting from Allas as the case study, from the point of view of Allas' subscribers and Allas' F&B partners toward reusable initiative. This qualitative assessment is based on a qualitative methodology. For this 3rd qualitative assessment, data are collected through interviews with Allas' co-founders and additional Allas' subscribers, as well as observations of Allas' online communication media. The data are then analysed to identify Allas' business processes' environmental impacts and to assess their influence on economic performance. This report focuses on the progress of Allas environmental and economic performances based on the analysis of additional interviews with subscriber-informants and selected parameters.

This 3rd qualitative assessment report is divided into 9 sections, as follows:

- ▲ Section 1 provides the contextual background about reuse service as a new scheme that is being pilot tested in The DKI Jakarta Province under the CAP SEA project.
- ▲ Section 2 provides the objective of the 3rd qualitative assessment to assess the impact of changes during the monitoring and evaluation period of the month of November 2022.
- ▲ Section 3 presents the methodology framework for parameters that are monitored and evaluated, data collection, data analysis and recommendations development.
- ▲ Section 4 highlights the limitations of this 3rd qualitative assessment.
- ▲ Section 5 presents eight parameters have been identified and selected to assess environmental impact and economic performance, they are:

- Environmental impact parameters
 1. Weight of Single-Use Packaging Avoided Cycle time
 2. Cycle time

- Economic consequences parameters
 1. Weight of Single-Use Packaging Avoided Cycle time
 2. Number of subscribers
 3. Weight of Single-Use Packaging Avoided Cycle time
 4. Number of active users
 6. Return rate
 7. Complete, consistent, and up-to-date information across all online communication media

- ▲ Section 6 summarizes the results of observation and interviews into several topics, i.e.: online communication media, Allas' container, Allas' event catering, changes in subscribers' pricing scheme, promotional approach, and Allas' F&B partners.
- ▲ Section 7 then presents the analysis related to environmental impacts and economic performance based on the eight parameters.
- ▲ Section 8 proposes recommended actions that could be taken to improve the business model of the reusable packaging system.
- ▲ Section 9 as the last section, lists the lesson learned from this qualitative assessment.

In November 2022, Allas had been able to increase the number of subscribers, the number of active users, and the number of borrows. Those increases have resulted in 221% increase in the weight of single-use packaging avoided from June 2022. Nevertheless, the growth rates of those parameters in the 3rd qualitative assessment periods are the lowest compared to their growth in the previous periods, except for the growth of subscribers. The lower growth rates were attributable to a combination of no new F&B partners, no new offerings, and limited utilization of the online communication media. However, Allas had been able to maintain the ratio of active users to subscribers and the return rate, as well as to increase the borrow unit per active user.

01

Background

The Collaborative Actions for Single-Use Plastic Prevention in Southeast Asia (CAP SEA) is a project that is funded by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection (BMUV) and implemented by GIZ. CAP SEA has been implemented in Thailand, Malaysia, and Indonesia, and is a part of a global GIZ project to support the Export Initiative Environmental Protection. The key objective is to reduce single-use plastic (SUP) by introducing innovative business models and by developing stakeholders' capacities, explicitly on upstream measures to prevent waste generation.

In Indonesia, CAP SEA aims to contribute to the achievement of targets stated in The National Action Plan on Marine Plastic Debris (2018–2025), such as a 70% reduction of plastic waste by 2025 compared to 2017, and in The Roadmap to Waste Reduction by Producers (through the Ministry of Environment Forestry or MoEF, Regulation P.75/2019), such as a 30% reduction of packaging waste from producers by 2029.

CAP SEA Indonesia has developed four work packages; work package 3 is the pilot project for business model implementation. The pilot project aims at reducing SUP packaging by providing a reusable packaging system for ready-to-eat food and beverage (F&B) deliveries in Jakarta City. The Special Capitol Region of Jakarta (locally named Daerah Khusus Ibukota or DKI Jakarta) was chosen as the local pilot project municipality because DKI Jakarta City has 10.5 million inhabitants and is by far the biggest agglomeration in Indonesia. The Governor of DKI Jakarta has banned SUP bags by issuing The Governor Regulation No. 142 of 2019 on the Obligation to use Environmentally Friendly Shopping Bags in shopping malls, convenience stores, and traditional markets.

The existence of a reusable packaging system for ready-to-eat F&B deliveries requires a new business model that differs from the model of the single-use packaging system. This system introduces Allas as the reusable F&B container provider. Allas is a start-up company that connects F&B merchants and online F&B customers by offering reusable packaging to F&B merchants. By joining Allas, F&B merchants (hereinafter referred to as Allas' F&B partners) can offer reusable packaging as an alternative to single-use packaging, whereas customers (hereinafter referred to as Allas' subscribers) have different packaging choices for their orders.

So far, Allas has offered reusable food containers and cups, collaborated with 16¹ F&B partners and one bicycle courier service, and served delivery/takeaway, personal catering offered by its F&B partners, and catering for limited- and open-participants events. There are no changes on Allas' offering and business processes during this 3rd qualitative assessment (QA) period. Allas has started to work on its online communication media by updating the F&B partners in its WhatsApp accounts.

02. Objective

The purpose of this study is to contribute to the assessment of the pilot project's performance by providing qualitative assessment, monitoring, and evaluation from an economic perspective. This report focuses on the progress of Allas environmental and economic performances based on the analysis of additional interviews with subscriber-informants and selected parameters.

¹There were 17 F&B partners reported in the 2nd Qualitative Assessment Report, but one partner closed their operation at the end of November 2022.

03. Methodology

In this report, the interviews were conducted to three new and three previously interviewed subscriber-informants to get information about their experiences with new Allas' initiatives. The selection processes of Allas' subscribers as informants are explained in Annex 1. Figure 1 shows the methodology in this 3rd qualitative assessment (QA).

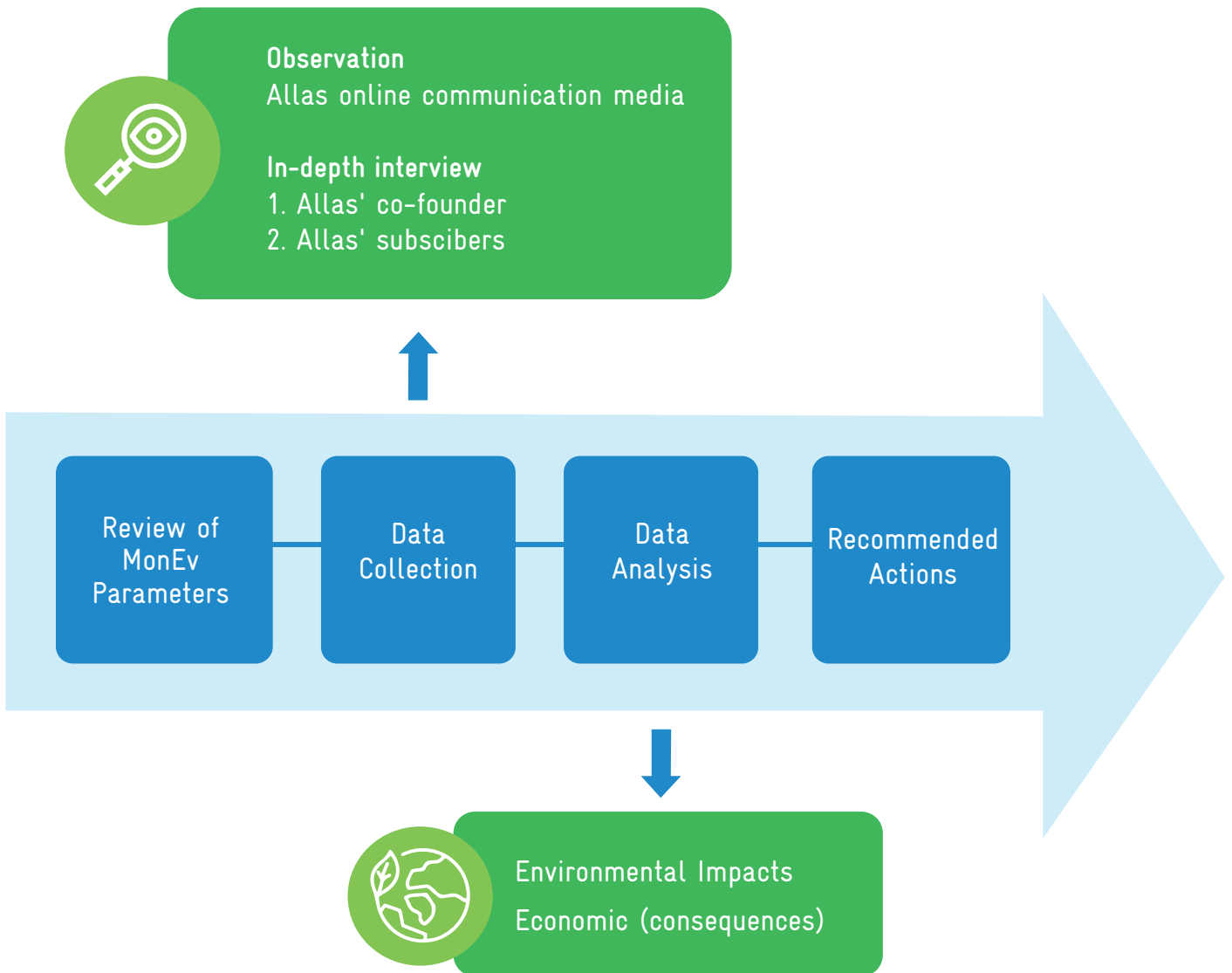


Figure 1 Methodology

04. Limitations

There are two limitations of this study, as follows:

- 1 The focus of this study is on the assessment of the economic performance of a reusable packaging system in connection with its impact on the environment. As a result, a detailed measurement of environmental impact, for example emission reduction or carbon footprint, is not explained in this study.
- 2 Due to confidentiality issue of financial data of organizations involved, the financial data used in this study are for illustration purposes only, except for those available for public, such as pricing information for Allas' subscribers. The same reason applies to non-financial data representing performance that shown in percentages only.

05. Monitoring and Evaluation Parameters

In this 3rd QA, eight parameters are used to monitor and evaluate Allas' performance; they are the same parameters as those used in the 2nd QA. The parameters are categorized into:

- ▲ Environmental impact parameters
 1. Weight of Single-Use Packaging Avoided
 2. Cycle time
- ▲ Economic consequences parameters
 1. Number of F&B partners
 2. Number of subscribers
 3. Number of active users
 4. Number of borrows (units)
 5. Return rate
 6. Complete, consistent, and up-to-date information across all online communication media

06. Results

06.1

Online communication media

Although Allas has posted the collaboration with some new F&B merchants in its Instagram account, this information has not been used to update the F&B partner's list in its websites and WhatApps account. Hence, by the 3rd week of November 2022, the list of F&B partners in its WhatApps account has been updated, although it was not a fully complete update.

The subscriber-informants had been using one or all Allas' communication media to obtain updates. Two subscriber-informants were aware of the offering of Allas' cups from Instagram and one of them expressed their interest to try them. Hence, due to no updates in the F&B partners' list in Allas' websites and WhatsApp, they perceived that there were no new F&B partners. During the interview, one subscriber-informant went straight to check Allas' WhatsApp account when being asked about Allas' F&B partners. All other information, such as business processes or updates on other offerings, is still inconsistently available in all communication media. One subscriber-informant commented on the language used in Allas websites: "Why is the websites in full English? Who is the target market?" With this view, suggestion from that one subscriber-information was to provide both Bahasa Indonesia and English in Allas' websites.

Allas' subscribers can arrange the return using Westbike themselves because the option for returning Allas containers is available in Westbike application (Figure 2). However, no information about this in any of Allas' communication media. Based on interview with Allas, most of the subscribers have chosen Westbike service arranged by Allas; one subscriber-informant has arranged Westbike pickup themselves. Two subscriber-informants stated the importance of communicating the handling of containers (such as storage and distribution), the cleaning process, and the maintenance of halal criteria to eliminate doubt and increase the comfort of subscribers, especially the Moslem ones.

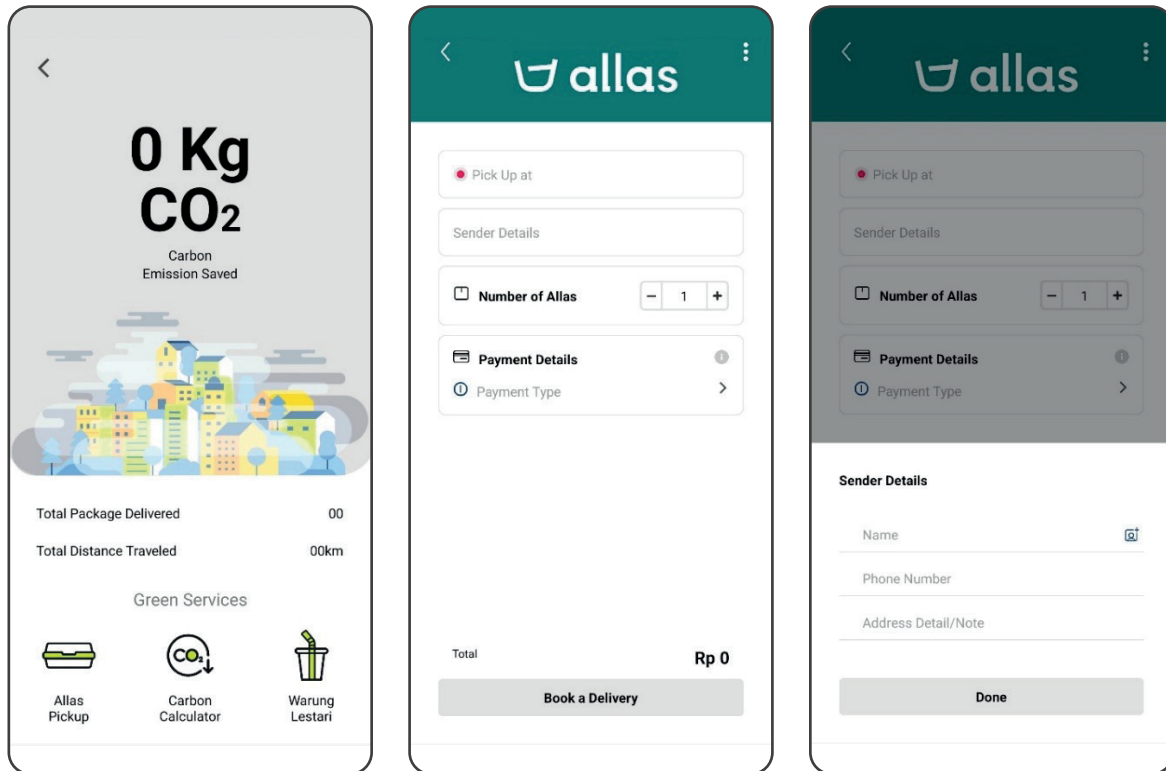


Figure 2 Allas Option in Westbike Application

06.2 Allas' containers

In general, the newly interviewed subscriber-informants in the 3rd QA agreed with previous subscriber-informants on the good quality of both Allas container, although they have not tried and used Allas cups. They are also cited the reduction in packaging waste as the environmental benefits of Allas and the use of Westbike in returning activities as positive initiatives.

One subscriber-informant mentioned that the stainless-steel material of cups increases the feeling of cleanliness, while another subscriber-informant concerned about the silicone material of food containers because of the unique smell of silicone that may arise after some use. In addition, a subscriber-informant suggested food containers with compartment to maintain food taste and texture. Two subscriber-informants mentioned that Allas needs to separate the containers used for non-halal F&B merchants from those for halal F&B merchants.

06.3 Allas' event catering

A subscriber-informant has attended an event using Allas' food containers. At the venue, they noticed the existence of a signage containing information about the returning procedures of the containers and a designated place of return. However, since this is a new initiative, they suggested more information about the importance of returning to avoid the containers being taken by attendees due to some misunderstanding. One subscriber-informant had worked for an F&B partner which had used Allas containers for daily catering and for a self-arranged event. Based on their experience, Allas has handled the daily catering well, but there was an issue regarding the cleanliness of cups for the event.

Allas has identified two types of events. The first one is limited-participant events, such as office meeting or family gathering. In this type of event, the organizer has more control of the participants. The second one is an open-participant events, such as music concerts, that can be attended by anyone. Allas experienced lower return rate for the second type of events. Although the organizer is responsible for any lost containers, currently Allas is in the process of exploring a borrowing model to reduce the risk of losing the containers and exploring cheaper containers for open-participant events to reduce the financial loss of losing containers.

06.4 Changes in subscribers pricing scheme

Only one out of six interviewed subscriber-informants in the 3rd QA said that changes in the subscription scheme² have made them chose Allas when ordering F&B via delivery. The changes have increased the convenience by eliminating the checking process on the remaining balance of the package. Two subscriber-informant perceived cost-saving with the new subscription scheme because there are not additional costs, other than the returning fee by pickup, in comparison to the old one.

06.5 Promotional approach

One subscriber-informant described a more direct promotional approach done by another startup offering reusable packaging for consumer goods. In addition to using social media, this startup visited the potential customers to explain their products and business processes. The subscriber-informant regarded this approach creates better engagement with the customers.

²The comparison between subscription schemes is available in the 2nd Qualitative Assessment report

06.6

Allas' F&B Partners

One subscriber-informant mentioned that Allas may face additional challenge if collaborating with F&B merchants offering more variety F&B, especially with those offering F&B in lower price range. There is a concern that without proper arrangement, the quality of the containers may be compromised. Like previously interviewed subscriber-informants, new subscriber-informant also suggested more variety of food offered and wider distribution of F&B partners' location to attract more subscribers. One subscriber-informant stated that halal criteria of F&B merchants is important in the reusable packaging system.

Allas has approached F&B merchants with some level of environmental awareness, ranging from those who are aware of their impact to the environment to those applying eco-friendlier alternative in almost every aspect of their businesses. Some F&B partners are recommended by their customers.

0.7

Analysis



07.1

Environmental Impacts

1 Weight of Single-Use Packaging Avoided

Table 1 displays that the weight of single-use packaging avoided has increased from June to November 2022; in November, the weight was 221% of that in June. However, analysis about the growth rate within each QA periods reveals that the growth rate in the 3rd QA is the lowest.

Table 1 Changes of The Weight Single-use Packaging Avoided from June to November 2022

 Parameter	1 st QA (June to Aug 2022)	2 nd QA (Aug to Oct 2022)	The 3 rd QA Nov	Overall June to Nov
 Growth in weight of single-use packaging avoided	45%	93%	15%	221%

The increase and decrease in the weight of single-use packaging avoided are determined by the number of borrows. Therefore, further analysis of the findings will be given in the analysis of Allas' economic consequences (section 7.2.2) together with the analysis of the number of borrows.

2 Cycle time

Allas has not done any initiatives that directly reduce the cycle time of delivery/takeaway and personal catering orders. Yet, as more event catering are handled, the overall average cycle time will decrease.

3 Other Environmental Impacts


Allas has not measured other environmental impacts of its business processes.

07.2

Economic consequences

Table 2 compares single-use and reusable packaging systems in terms of activities performed (online delivery and takeaway) and the parties performing the activities. The comparison is limited to those parties directly involved in the single-use and reusable packaging systems, i.e.: Allas, F&B merchants/partners, customers/subscribers. The activities performed represent types of cost incurred by each party.

Table 2 The Activities Performed by Related Parties in Each Packaging System

 Activities	Single-use Packaging System	Reusable Packaging System
Purchase of packaging ³	F&B merchants	Allas
Borrow of packaging	-	Customers, F&B merchants
Managing packaging waste	Customers	Allas
Returning of packaging after use	-	Customers, Allas
Cleaning of packaging after use	Customers	Customers, Allas

³Packaging term in this table is limited to the main packaging, such as food containers and cups, and does not include additional packaging, such as bags or holders

As shown in Table 2, there are additional activities in the reusable packaging system, such as returning and more cleaning activities. Those activities create additional costs for those directly involved in the system. However, with the reusable system, the single-use packaging wastes are reduced, which subsequently reduce more activities and much higher costs needed to clean up the environment and manage the side effects (such as health and safety issues) incurred in single-use packaging system. Therefore, the reusable packaging system reduces the overall costs of managing the environmental impacts, especially those borne by the government and the society (Upstream Policy Institute, Inc., 2022).

07.2.1 Economic consequences for Allas' subscribers

Based on the comparison of out-of-pocket costs between single-use packaging and current reusable packaging systems, the cost of the reusable packaging system is greater than that of the single-use one for Allas' subscribers. Although single-use packaging system involve high waste management costs in the end, the majority of these costs is borne by local governments. Whereas there are subscription and returning fees in Allas' current reusable system, in addition to relatively high-priced menus of current F&B partners. Customers accept the additional delivery fee on top of the F&B price because it pays for the convenience of having the F&B delivered to them. However, there is no direct benefits for customers associated with the returning fee.

Economic consequences for Allas

1 Number of F&B partners

During November 2022, there were no additional F&B partners (Table 3); Allas has been focusing on doing internal reorganization to improve its business model.


Table 3 Number of F&B Partners

	June 2022	August 2022	October 2022	November 2022
Number of F&B partners	10	14	17	16 ⁴

⁴One F&B partner had closed their operation at the end of November 2022.


- 2 Number of subscribers, number of active users, and number of borrows. Due to the unavailability of subscriber data in June, the base month used for subscribers is August 2022. Table 4 shows that the number of subscribers has grown 4% from August to November 2022 and the growth rates are the same in both QA periods.

Table 4 Growth of Subscribers from August to November 2022

	The 2 nd QA Aug to Oct	The 3 rd QA Oct to Nov	Overall Aug to Nov
Growth in number of subscribers ⁵	14%	2%	4%

Data in Table 5 shows that the number of borrows has increased significantly during June to November 2022 period in the rate of 230%. However, the growth rate in the 3rd QA is the lowest in comparison to the rates in the 1st and 2nd QAs. The considerable growth in 2nd QA was fuelled by the launching of collaboration involving Allas' cup and the increase in event catering. Although both initiatives were continually offered in the 3rd QA period, they did not result in high growth rate as before. The number of active users has also increased from June to November 2022, although at lower 44% (Table 5) compared to growth in the number of borrows. Similar to the periodic growth rate of the number of borrows, the growth rate of active users in the 3rd QA is the lowest. Both growth rates indicate decreasing performance, which result from no new offerings and no new F&B partners in conjunction with Allas' internal reorganization. Ineffective utilization of communication media may also contribute to this performance. Further data scrutiny (as recommended in section 8) is necessary to uncover the cause of decreased growth rate.

Table 5 Growth of Number of Borrows and Active Users from June to November 2022

	The 1 st QA June to Aug	The 2 nd QA Aug to Oct	The 3 rd QA Nov	Overall June to Nov
Growth in number of borrow	47%	91%	18%	230%
Growth in number of active users	17%	20%	3%	44%

⁵Subscribers comprise all interested users that have inputted their personal information into Allas' database, whether or not they have paid the registration fee.

As shown in Table 5, number of borrow had increased in higher rate than that of active users during June to November 2022. Table 6 shows that there had been a consistent increase in the number of borrow units per active user. The ratio of borrow units per active user measures Allas' success in encouraging more usage by its current subscribers. This highlights the importance of strategies that encourage more borrows of existing subscribers in addition to those that attract new subscribers. However, the calculated ratio may not indicate the real story because the number of borrows includes borrow from event catering, while the users of event catering are not required to register as Allas' subscribers, thus are not included in active user calculation. It would be better to differentiate this ratio by type of services (delivery/ takeaway, personal catering, and event catering).

Table 6 Ratio of Borrow Units per Active Users from June to November 2022



	By the End of the 1 st QA (Aug)	By the End of the 2 nd QA (Oct)	By the end of the 3 rd QA (Nov)
Borrow Units per Active User ⁶	14	17	20

Table 7 portrays an increased ratio of the number of active users to the number of subscribers, which indicates that more subscribers have used Allas containers. Hence, they are at low percentages (below 30%). One of the reasons of low percentage results from the inclusion of all subscribers in the calculation, while some of Allas' subscribers reside outside Allas' current operation area in southern part of Jakarta, even out-of-town. Therefore, there is a low probability that they will become Allas' active users soon. They registered to show their interest to join Allas when Allas is available in their city and/or to use Allas when they are in Allas operation area. The real ratio may show higher number than 30%.

Table 7 Ratio of Active Users to Total Subscribers form August to November 2022

	By the End of the 1 st QA (Aug)	By the End of the 2 nd QA (Oct)	By the end of the 3 rd QA (Nov)
Active Users to Total Subscribers	24%	29%	29%

⁶Cumulative number of borrows up to a specific month divided by the number of active users (active users are those subscribers that have borrowed at least one type of Allas containers in the last three months).

Ratio of borrow units per active user and active users to total subscribers show the importance of data categorization for better ratio calculation and interpretation, which can lead to identification of best-fitted strategies.

3 Return rate

Allas had been able to maintain 96% return rate in November 2022. In dealing with lower return rate in open event catering, one alternative considered by Allas is to carry a cheaper type of containers for this purpose. Although this will reduce the financial loss of losing the containers, the additional type of containers may add to the cost of managing containers. With different containers serving different purposes, Allas has less flexibility in using the containers interchangeably. Consequently, Allas needs to have more quantities for each type containers and this will lead to higher investment and storage cost. In addition, to demonstrate its values as eco-preneurship even further, Allas could consider the environmental impact of material type in selecting the alternative container.

4 Complete, consistent, and up-to-date information across all online communication media

Due to human resource limitation, Allas has not updated its online communication media consistently with any changes or new offerings. As discussed in section 6.1, subscriber-informants has looked into Allas online communication media to get information and updates about Allas. Therefore, out-of-date information in the online communication media has led to misunderstanding of the actual condition. For example, subscribers' perception of no additional F&B partners due to no updates has caused them not to resume the usage of Allas containers. Moreover, incomplete and out-of-date list of F&B partners in Allas' online communication media could impair Allas' relationship with the partners. It may affect their commitment in carrying and/or promoting Allas containers. Both consequences will result in negative economic performance for Allas. Allas could also include the utilization of its communication media as branding and promotion alternatives when offering its products to F&B merchants. This could replace branding and promotion previously provided by their own packaging. Nevertheless, this requires continue and proper maintenance of Allas' communication media

Allas has facilitated the arrangement of pickup by Westbike to encourage the returning of borrowed containers in eco-friendly way. However, this activity consumes the time of Allas admin. With the existence of option for Allas in Westbike application, the hassle of this activity can be reduced by socializing the option and the explanation of step-by-step process in Allas' communication media. The time saving benefits will be greater with more subscribers and borrows expected in the future. .

One concern mentioned by two subscriber-informants is related to the way Allas will handle halal versus non-halal meals, especially with additional F&B partners expected in the future. Allas has two options related to this issue. One, it can limit its F&B partners to only those offering halal-certified meals and vegetarian/vegan food. Another option is to separate the containers and their handling between those for halal and non-halal meals. A comprehensive analysis from environmental and economic perspectives should be conducted in selecting the best alternatives, followed by communicating Allas practice via its communication media. A clear information will increase trust and convenience in using Allas containers, which is expected to result in higher number of subscribers and active users, as well as number of borrows.

08

Recommendation

For better understanding and improvement of the current business processes, some recommendations are suggested:

1 Promotion and awareness raising

Utilize the online communication media to:

- ▲ Share more information about personal and event catering (the procedures, payment terms, collaborated F&B partners, etc.) and collaboration with Westbike (including the Westbike application).
- ▲ Provide information about internal processes related to the handling of containers to ensure the maintenance of containers' quality and fulfilment of halal criteria.
- ▲ Educate the society about the comprehensive activities carried out, values offered, and costs incurred in single-use and reusable packaging systems. The costs of single-use packaging system should include costs of cleaning up the polluted environment and cost of health and safety issues arise from that.

Collaborate with:

- ▲ F&B partners to maintain and even increase the frequency of use of active users. For instance, by giving the most active users a discount or giveaway to order from new or low performance F&B partners. With this initiative, Allas has promoted the participated F&B partners and the appreciated subscribers may recommend Allas and/or F&B partners to other existing or potential subscribers.
- ▲ Communities of existing and potential subscribers in creating more engaging educational and promotional activities. The activities are intended to attract wider society and create demand for reusable packaging, specifically for ready-to-eat F&B. This could encourage more F&B merchant to be Allas' F&B partners.

2 Data collection and management

- ▲ Collaborate with Westbike to ensure up-to-date information on Westbike application that in line with any related changes in Allas' operation, such as the addition of Allas' containers category (food containers and cup). This will reduce the risk of incomplete and incorrect data due to manual input by the subscribers or Allas.
- ▲ Collaborate with other parties to build a system to capture and report complete and real time data related to Allas' business processes, such as the environmental impacts of returning and washing activities and the tracking of each or batch of containers (to capture frequency of use and cycle time data).

3 Monitoring of performance

- ▲ Allas could do more detailed data categorization and calculation of current parameters and/or add some parameters to provide better insights of the condition or problems, which could be followed by identification of better strategies.
- ▲ Number of borrows could be further broken down by F&B partners or category of partners (e.g.: restaurants, coffee shops, catering business, etc.) to identify F&B partners or the category with certain number of borrow (high or low) and trend (increase, steady, or decrease) over time. Then, these data, together with changes in Allas' offerings, can be further analysed to characterise F&B partners for each category of number, trend, and their combination and to identify proper strategies for each category.
 Number of borrows could also be differentiated based on their purposes, whether as the source of revenues or as promotional tool (e.g.: giveaway to attract new subscribers or to maintain existing subscribers). This differentiation gives more meaningful insights to see the linkage between the number of borrows, revenues, and cash flows (amount and timing), as well as the monitoring of promotional campaign's effectiveness.
- ▲ Subscribers could be classified by location (e.g.: by region of Jakarta for Jakarta location and by city for location outside Jakarta). The classification allows more meaningful interpretation of ratio of active users to total subscribers by showing the proportion for only Allas' current operational area. The ratio can assess the effectiveness of Allas' current initiative or offerings in encouraging the targeted subscribers to use Allas. The breakdown of this ratio could also identify Allas' potential operational areas; more subscribers from a specific area show higher acceptance of the business model that can lead to good borrowing rate. To ensure complete subscriber data, the event-catering users should be required to register.

- ▲ Because of many changes that have been done by Allas, it is worthwhile to revisit the definition of active users, whether to keep the current definition of subscribers that have use Allas containers in the last three months or to include minimal frequencies and/or units of borrow as additional criteria for active users. Analysis of active users' characteristics can help in better identification of potential subscribers as target for promotional campaigns and better strategies to maintain the existing ones.
- ▲ The total weight of single-use packaging avoided could be broken down by type of Allas containers (food containers and cups). There is a possibility of different acceptance level by the society in using reusable containers for food versus drink. The analysis of a more detailed data over time can give insights as to whether to pursue F&B merchants that focus on food or drinks as partners to accelerate the achievement of Allas' purpose in reducing the single-use packaging wastes.
- ▲ Categorize the return rate by type of services (delivery/takeaway, personal catering, and event catering) and further breakdown the return rate of event catering by types of events (limited- and open-participant events). The performance of return rate of each type of events over time could give insight to whether the investment in the new type of containers is necessary (as considered by Allas in section 6.3). In addition, the investment should be analysed in term of comprehensive environmental and economic consequences.
- ▲ New parameter: Borrow per active user and active user per subscriber
The trend in number of borrow per active users could identify whether changes in Allas' offerings encourages more borrows. Continues monitoring of these ratios can help in identifying the characteristics of offerings that attract Allas' subscribers to borrow more.
- ▲ New parameter: Profit measurement
Profit can be measured in total, per type of product (delivery/takeaway, personal and event catering), per type of containers, per category of subscribers, or per category of F&B merchant. The monitoring of this ratio gives insights into strategies to ensure economic sustainability of the reusable packaging system.

09

Lesson Learned

There are some lessons learned based on the analysis up to the 3rd qualitative assessment. To start with, is the importance of regular updates of online communication media's contents. It should consist of promotional and educational content, also as a mean of communicating achievement and collaboration. Therefore, the media serve to maintain engagement and to convey values to existing and potential users, as well as society in general. Next, the support from regulator to assist the implementation of reusable packaging system. Users of current reusable packaging system acknowledge the reduction of packaging waste as the environmental benefits. Nevertheless, they do not concede the economic benefits due to small number of transaction (F&B merchants) and higher out-of-pocket costs (customers) of the reusable system. The regulator can provide support in terms of policy framework, ranging from creating demand for the system, requiring transparency of packaging costs in product price, providing needed infrastructures for more convenience returning activities to banning of SUP packaging. Demand creation can be conducted through mandatory Green Public Procurement system at regional and national level.

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Annex

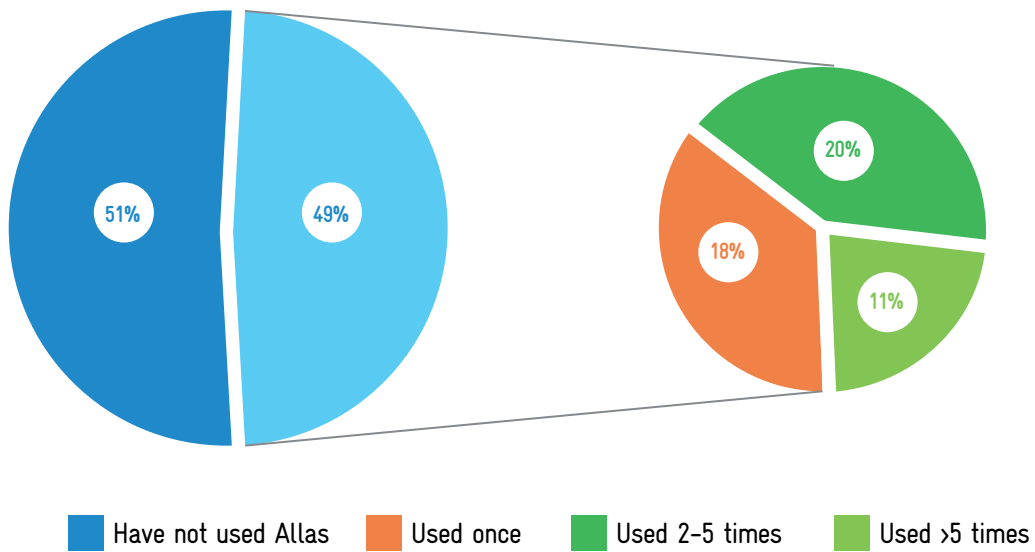
Annex 1 The Selection Process of Allas' Subscribers as Subscriber-Informants

There were three previously subscriber-informants and three additional subscriber-informants that were interviewed in this 3rd QA to obtain more information about their experiences with Allas reusable packaging system and the changes in them. The subscriber-informants were selected from respondents that stated their willingness to be interviewed in the midline questionnaire of this pilot project (distributed by GIDKP to Allas subscribers in September 2022). There were 45 respondents out of 662 Allas' subscribers as of August 2022. The following table shows the selection process of 32 prospective subscriber-informants from 45 respondents.

The Selection Process of Prospective Subscriber-Informants in November 2022

 Selection Process	Symbol	The 3 rd Qualitative Assessment
Total respondents of the questionnaires	A	45
Number of respondents declining to act as informants (responding "No" or did not answer the question)	$C = A - B$	7
Number of respondents willing to act as informants	D	38
Number of respondents without identifiable contact information in the database	$E = C - D$	3
Number of respondents with contact information	$E = C - D$	35
Number of respondents working in one of the participating organisations in the pilot project (GIZ CAP-SEA, GIDKP, or Allas)	F	3
Number of potential informants	$G = E - F$	32

The final subscriber-informants were then selected from 32 potential subscriber-informants. The following figure shows the distribution of a total of respondents based on the frequency of Allas containers usage. One selection criterion of subscriber-informants is the frequency of use of Allas containers, ranging from "I have never used Allas" to "I have used Allas more than five times". However, since not all potential subscriber-informants were willing to be interviewed when contacted, some stated their objection or did not respond when contacted, the distribution of the subscriber-informants does not match the distribution of total respondents.



Distribution of Respondents based on Frequency of Use of Allas Containers

There were five subscriber-informants interviewed in the 1st QA. Three of them filled out the midline questionnaires, stated their willingness to be interviewed, and being interviewed in this 3rd AQ. The other respondents that also stated their willingness to be interviewed were analysed. Last-time-used-of-Allas-containers is added as one of the selection criteria to increase the probability that the subscriber-informants were aware or have experienced Allas' new initiatives. From the analysis, three additional respondents were interviewed that makes the total of six subscriber-informants in the 3rd QA. Interviews with all subscriber-informants were conducted online via Zoom and the consents were obtained prior to the interview.

Annex 2 Information about subscriber-informants interviewed in the 3rd QA

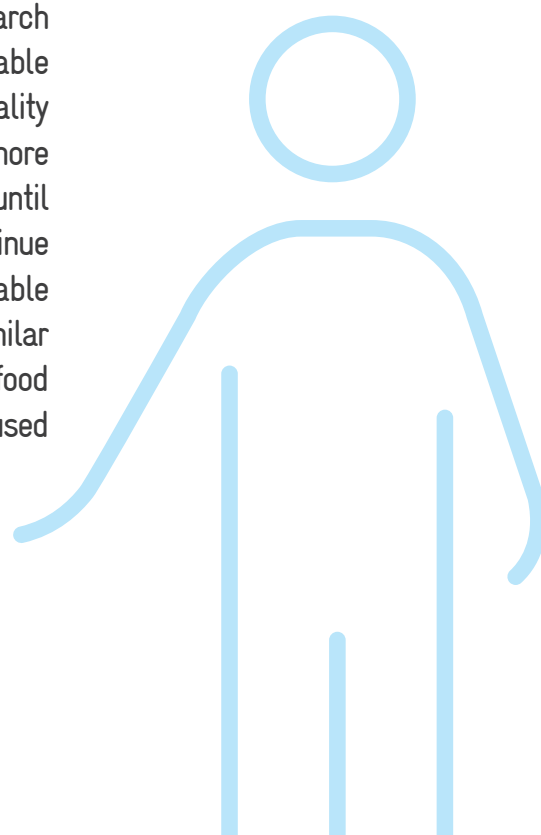
The characteristics of subscriber-informants interviewed in this study (the 1st and 3rd QAs) are shown in the following Table. There are eight subscriber-informants in total, with three of them were interviewed in both the 1st and 3rd QAs

Characteristics of Subscriber-Informants

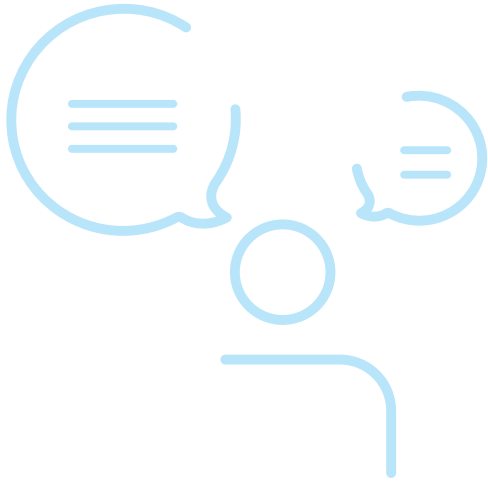
No	Informant	Generation ⁷	Education	Profession	Frequency of Allas Container Usage	Period of Interview	
						The 1 st QA*	The 3 rd QA
1	CustA01	Gen Y	Bachelor	Private sector	More than 5 times	✓	-
2	CustF01	Gen Z	Master	Freelancer	2 to 5 times	✓	✓
3	CustF02	Gen Y	Bachelor	Private sector	More than 5 times	-	✓
4	CustI01	Gen Y	Bachelor	Professional	0	✓	✓
5	CustK01	Gen X	Bachelor	Housewife	More than 5 times	✓	-
6	CustN01	Gen X	Bachelor	Housewife	0	-	✓
7	Cust001	Gen Y	Bachelor	Entrepreneur	More than 5 times	-	✓
8	CustU01	Gen Y	Vocational	Vocational	2 -5 times	-	✓

■ **CustF02** knew Allas through a friend and joined in March 2022. He works for an organization offering another type of reusable initiative. They perceived that Allas food containers have good quality and they feel that "...it is like using our own food container...more comfortable than using plastic containers ...". They have used Allas until the end of September or beginning of October 2022 and will continue to use them. In their opinion, Allas and other reusable/returnable initiatives enable them to continue doing regular things or using similar products, but without creating waste. They have used Allas food containers for delivery and event and daily caterings, but have not used Allas cups up to the time of interview.

⁷(kompas.com, 2021)



▲ **Cust001** has become Allas' subscribers since it was launched in June 2021. They got the information from Allas Instagram ads. They were interested to try Allas since it offered a solution to significant plastic waste from online F&B deliveries. Their last used of Allas food containers was in September 2022. They work in a bicycle courier service handling Allas returning service and were the one offered this courier service to Allas to support the achievement of zero emission supply chain.



▲ **CustU01** joined Allas in October 2021 through a giveaway arranged by Allas with one of Allas' F&B partners. They have subscribed to personal catering service of this F&B partners and the giveaway enable them to use Allas food containers for this service. The giveaway was for five times usage with one-time pickup service using Westbike. They have not used Allas after the giveaway used up because of limited food variety offered by F&B partners. Information about Allas was first obtained from a social media account of a zero-waste enthusiast. Their interest toward Allas' initiative grew after learning about waste management activities and the significant single-use F&B packaging waste.

The updates of Allas' subscribers from the first interview are as follows:

▲ **CustF01** has not resumed using Allas due to similar reason as before (the location of F&B partners). However, they follow Allas' progress and are specifically impressed that Allas has collaborated with a reputable F&B merchant offering plant-based food.

▲ **CustI01** has not used Allas containers in the first interview because of the lack of variety of F&B merchants. In this second interview, they still have not used Allas, but has shown higher intention to try and use Allas containers because Allas was offered by one of F&B merchants with menus more appealing to them. They got this information when scrolling through one online food delivery platform.

▲ **CustV01** commented that Allas has not added new F&B merchants as its partners based on information on Allas' Instagram. This prevented them to resume the use of Allas food containers. However, they showed interest to try and use Allas cups to experience the process.

