

Reflections on the #RecycleRight Citizens' Workgroup

Carol Soon, Senior Research Fellow
Sim Jui Liang, Research Associate

22 December 2020

CONTENTS

1	Executive Summary	3
2	Introduction	7
3	Methodology	9
4	Effective Deliberation	13
5	Analysis of the #RecycleRight Citizens' Workgroup	17
	Inclusivity and diversity	18
	Fairness and equality	22
	Knowledge gain	24
	Efficacy	28
	Applicability	35
6	Conclusion	39

Notes on Authors:

Dr Carol Soon is Senior Research Fellow at the Institute of Policy Studies. She heads the Society and Culture department, and her research focuses on media, technology, public engagement and citizen deliberation.

Mr Sim Jui Liang was Research Associate at the Institute of Policy Studies.

EXECUTIVE SUMMARY

Recent surveys conducted by the Ministry of the Environment and Water Resources (MEWR) and the National Environment Agency (NEA) found that people in Singapore still hold misconceptions towards recycling, which has contributed to the high contamination rate of recyclables in the blue bins. In July 2019, Senior Minister of State (SMS) for the Environment and Water Resources Dr Amy Khor announced that the government would convene a citizens' workgroup to improve recycling among Singapore households.

The #RecycleRight Citizens' Workgroup (CW) is a collaboration between MEWR and the Institute of Policy Studies (IPS). Modelled closely after the Citizens' Jury process, which gathers a selected group of citizens who represent a cross section of a defined community, the challenge statement posed to participants was:

“How can we improve the way households recycle?”

A total of 48 participants were recruited for four full-day sessions on 21–22 September and 19–20 October 2019 to discuss and develop solutions to answer the challenge statement. In addition to co-creating solutions, participants had to prototype and test them. The participants came from diverse demographic backgrounds (i.e., age, gender, ethnicity, education, housing type and occupation), practised recycling at different frequencies and engaged in different levels of green activities. The #RecycleRight CW culminated in nine proposals that were submitted to SMS Dr Amy Khor on the final day.

In this report, we analyse the process, based on the principles of citizen deliberation and engagement and supported by our observations of all the four sessions and findings from the pre- and post-CW polls. The report concludes with several recommendations to inform the design and planning of similar initiatives in the future.

Key Findings

1. **Inclusivity and diversity:** As it was not possible for every citizen to participate in a decision-making process such as the CW, it was important for the process to be as inclusive as possible. This was accomplished by involving people from different backgrounds. The participants of the #RecycleRight CW, with their diverse backgrounds and experiences in green activities, brought to the CW a rich plethora of insights and ideas.
2. The design of the process played a critical role in eliciting the richly varied perspectives of this group. One important feature of the CW was the use of a good mix of activities, in different formats and group sizes, which brought out the myriad concerns and views that the participants had relating to the state of recycling in Singapore. The creative use of

different formats encouraged not only candid discussion among participants in each group, but also the sharing of constructive feedback across groups. This contributed to improving the quality of the diverse recommendations and sustaining participants' engagement level throughout the entire process.

3. **Fairness and equality:** These two qualities were assessed at the personal and group levels. In general, fairness and equality were present at the personal level throughout the process — most of the participants had the opportunity to contribute to ideation and solutioning within their own group and across groups. There was little reservation among participants when offering information and making suggestions as they listened to other groups' presentations. We observed several instances where groups shared the information and findings gathered from their own projects with others who they thought might benefit from the insights. The majority of the participants appreciated the attention and feedback they received from those within and outside their groups.

The post-CW poll found that 90 per cent of the participants felt that their views were heard and taken seriously during the CW sessions.

4. **Knowledge gain:** Knowledge gain happens when participants' knowledge on the topic and on the wider policymaking process increases. The information kit, which included findings from recent public consultation and focus group discussions, and four pre-CW field trips attended by some of the participants provided important background information on the latest developments relating to recycling in Singapore.
5. A critical component of the CW process is the four-week period (between the first two and the last two sessions), which required participants to collect data to support their recommendations. In the process of doing so, participants engaged directly with residents, general members of the public and grassroots agencies. From their interactions with different groups, the participants learnt firsthand the difficulties in getting people to recycle correctly as well as the practical challenges involved in policymaking, insights and knowledge that they would not have acquired otherwise.

While 79 per cent of the participants found the information kit useful in providing more background on the topic of recycling, almost 98 per cent of the participants felt that the CW process has helped them to understand the challenge posed by contamination to recycling bins and chutes.

6. **Efficacy:** Internal efficacy happens when an individual evaluates his own competency positively. Post-CW saw a significant increase in participants' internal efficacy. One important reason was that almost all the groups conducted research and collected data from members of the public and different stakeholders to develop their proposals. The evidence they gathered firsthand increased confidence in their ability to contribute to the process and to overcome the challenges to recycling correctly.
7. The ample and suitable deployment of scaffolds throughout the process was another key feature of the #RecycleRight CW. The participants — many of whom were new to the

process of collective problem-solving — were provided guidance at every step of the process, i.e., brainstorming of problems, deliberation of potential solutions, consensus-building, and voting of/selection of recommendations to submit to policymakers.

About 84 per cent of the participants believed that the CW experience had made them more confident in their ability to contribute as an active citizen. After going through the CW process, close to 70 per cent felt that citizens have a say in what the government does, compared with 61 per cent of participants feeling so at the beginning.

8. The #RecycleRight CW process has also made a positive impact on the participants, in terms of their external efficacy. They were more confident in making an external impact and contributing to policymaking. This was evident from their interest in being part of future citizen engagement activities on similar topics and working with their group members to bring their recommendations to fruition. The factors that contributed to this interest included the positive collaborative experience the participants had with one another, their recognition of the extent of the problem relating to the recycling situation in Singapore, and the real-time support provided by MEWR. MEWR's commitment to the process conveyed to them that policymakers took their plans seriously and were sincere in working with citizens to bring about change.

About 86 per cent of the participants would consider participating in future citizen engagement opportunities with MEWR, 88 per cent wanted to be more actively involved in initiatives to promote recycling right, and 93 per cent were keen to continue working with their group members on their CW recommendations.

9. There was also an increase in political trust. A majority of the participants were hopeful of a different relationship that citizens would have with the government — one of partnership to effect positive changes in Singapore.

Post-CW, more than 80 per cent felt that the government cares about what citizens think and more than 90 per cent believed that the government is committed to partner citizens to build our future Singapore.

10. **Applicability:** The CW met the targets of co-creating and testing solutions, and a total of nine proposals were submitted to MEWR. Given the on-the-ground experiences the participants had in evidence-gathering and the fact that their proposals went through numerous rounds of discussion and refinement, they were confident that their recommendations would be well-received by policymakers and the public.

Almost all (about 98 per cent) of the participants felt that their recommendations were worthy of government support; about 81 per cent felt that the recommendations would be supported by Singaporeans.

11. SMS Dr Khor provided MEWR's feedback to all the recommendations at a dialogue session in November 2019. MEWR would be supporting four pilot projects (developing a sustainable community, piloting a new blue bin design, researching into a Deposit Refund Scheme, and supporting the development of the #DabaoRight app).

Recommendations

1. **Allow for co-designing of process for greater empowerment:** For the #RecycleRight CW, the facilitators determined many aspects of the CW on behalf of the participants. This contributed to the process coming across as rather top-down and task-oriented. While participants' views were generally heard throughout the process, they could have been given more opportunities to shape the process, for instance, in setting group norms for interaction and the CW's outputs. Allowing participants to co-create the process could have helped them better internalise the desired behaviour and norms of citizen deliberation, and cultivate skills that would be transferrable to other initiatives.
2. **Ensure consistent quality of facilitation:** While a significant number of participants felt that the facilitators had played an effective role at the sessions, others felt that the facilitation was target-driven and not conducive to the process. Furthermore, some facilitators were more proactive than others in ensuring that different people contributed to the group discussions. A more even and active facilitation in eliciting different perspectives could have levelled up the amount and quality of deliberation, especially within small groups.
3. **Better scheduling:** Many participants felt that they did not have sufficient time in the CW. Given that participants were required to test and implement ideas, in addition to developing solutions, more time was required for them to discuss and refine ideas, conduct research and gather evidence. Future CWs with similar objectives should incorporate at least one additional session, which will provide participants with more time for their tasks without compromising the quality of the CW experience.
4. **More support to be given to the agency:** The agency leading the CW effort requires sufficient lead time for identifying and securing necessary resources (e.g., seed funding and the support of partner agencies) in advance, especially for a CW of this nature, where citizens have to test their recommendations. For the #RecycleRight CW, the team from MEWR did what they could to provide participants with the various resources required. However, this was done during the four-week interval, and proved to be challenging for both the MEWR team and the participants.

The #RecycleRight CW demonstrates that citizens have the capability to not just co-create solutions but also co-implement them. More importantly, the evidence-gathering participants had to do on the ground enabled them to gain valuable insights into what policymaking truly entails. Through the support as well as resistance they encountered with different stakeholders, residents and agencies, the participants realised what it takes to build consensus with one another, and with citizens and agencies who have different priorities and needs.

INTRODUCTION

Since the inception of a national recycling programme in April 2001, public waste collectors licensed by the National Environment Agency (NEA) have been providing recycling bins and recycling services to Housing & Development Board (HDB) estates, landed properties, condominiums and private apartments.¹ The blue recycling bins — which are designated for the collection of paper, plastic, glass and metal recyclables — are commonly found in Singapore's streetscape.

However, almost two decades later, surveys conducted by the Ministry of the Environment and Water Resources (MEWR) and NEA have found that people in Singapore still hold misconceptions towards recycling. While 60 per cent of the households interviewed in the surveys recycled regularly, many of them have been doing so incorrectly. For example, respondents in the survey had difficulties identifying contaminants and non-recyclables, with over 60 per cent believing that soiled tissue paper, food packaging, glass cookware or porcelain/ceramics could be recycled. Such misconceptions have contributed to the high contamination rate of recyclables in the blue bins.²

Every year, Singapore uses at least 1.76 billion plastic items but less than 20 per cent is recycled. The online survey conducted by the Singapore Environment Council also found that consumer use of plastic bags from supermarkets in Singapore amounted to 820 million and only 2 per cent of these plastic bags were recycled, with the bulk of them used for disposing rubbish.³

It is in this context that in July 2019, Senior Minister of State (SMS) for the Environment and Water Resources Dr Amy Khor announced during the Partners for the Environment Forum that the government would convene a Citizens' Workgroup (CW) to improve the recycling rate in Singapore households. The workgroup reflected the government's intention "to go beyond discussion, and work with Singaporeans to co-create solutions to environmental issues."⁴

The #RecycleRight CW is a collaboration between MEWR and the Institute of Policy Studies (IPS). IPS worked closely with MEWR in the development of the sampling frame, screening questionnaire, pre- and post-CW polls, and the recruitment and selection of participants. IPS also provided input on the design of the CW sessions. This report is an analysis of the efficacy of the

¹ <https://www.nea.gov.sg/our-services/waste-management/3r-programmes-and-resources/national-recycling-programme>

² <https://www.mewr.gov.sg/news/60-per-cent-of-singaporean-households-recycle-regularly>

³ Hong, J. (2018, July 31). Singapore goes through 1.76 billion plastic items a year, recycles less than 20%. *The Straits Times*.

⁴ Goh, T. (2019, July 18). Citizens' workgroup to be formed to help improve recycling culture. *The Straits Times*.

CW as a methodology in Singapore's public policymaking space and its value in promoting active citizenship.

The CW is similar in concept to Citizens' Jury (CJ), in which a diverse group of citizens, representing different segments of society, are gathered to "hear evidence, question witnesses and, through a process of collective discussion and deliberation, make informed recommendations on the issues before it".⁵ A CJ typically meets for a few days, with the members considering and discussing with one another a public policy question or problem.⁶ It has been used in South Australia to consider the mandatory sterilisation of cats and dogs so as to lower the number of such unwanted animals being put down.⁷ In Gloucestershire, England, a CJ was convened to help select the location of a new community hospital.⁸

Singapore had its first CJ in November 2017, with 76 participants meeting for four sessions to deliberate the policy issue of "As a community, how can we enable one another to live free from diabetes, and for Singaporeans with diabetes, to manage their condition well?" At the end of the CJ process, which spanned seven weeks, the participants presented 28 recommendations in a report that was submitted to SMS for Health Dr Khor.⁹

For the #RecycleRight CW, 48 participants came together over four full-day sessions on 21 (Day One) and 22 September (Day Two), and 19 (Day Three) and 20 October (Day Four) to discuss and come up with recommendations and solutions that address the challenge statement:

"How can we improve the way households recycle?"

The entire CW process took place over a month, with many of the participants continuing with project discussions and conducting pilot tests with their teammates in between the sessions. Many of the groups conducted surveys and research to test out their ideas (refer to the section on "Internal efficacy — Participants' perceptions of their roles" on page 28). Four participants dropped out of the CW towards the end of the process, bringing the total number of remaining participants to 44. They cited personal reasons, including work commitments and family matters, for not continuing with the workgroup. One of them also alluded to challenges working with fellow teammates.

The final session culminated with the top six voted recommendations being presented to SMS Dr Khor. A report detailing all the groups' recommendations was also submitted to MEWR on the same day. This report is a reflection of the CW process and presents our recommendations to inform the design and planning of similar initiatives in the future.

⁵ Kuper, R. (2007). Deliberating waste: The Hertfordshire Citizens' Jury. *Local Environment*, 2(2): 139-153.

⁶ Barnes, A. P., Vergunsts, P, and Topp, K. (2009). Assessing the consumer perception of the term 'organic': a citizens' jury approach. *British Food Journal*, 111(2): 155-164.

⁷ Paul Starick, P. (2015, May 22). Compulsory desexing of dogs and cats in South Australia to be considered by citizens' jury. *The Advertiser*.

⁸ BBC. (2018, August 30). 'Citizens' jury' helps choose new Gloucestershire community hospital location.

⁹ Soon, C. and Yeo, V. (2018, October 19) *Reflections on the Citizens' Jury for the War on Diabetes*. Retrieved from: https://lkyspp.nus.edu.sg/docs/default-source/ips/reflections-on-the-wod-cj_ips-published-191018.pdf

METHODOLOGY

Reaching Out and Recruitment

The recruitment of participants for the #RecycleRight CW took place over five weeks, from 17 July to 23 August 2019. The application was open to Singapore citizens and Permanent Residents (PRs) living in public and private housing. To minimise recruitment bias, for example, towards people who are less tech-savvy or are not connected digitally, the participant recruitment and screening was conducted on various platforms, both online and offline:

- An open call was made on 17 July 2019 through MEWR's Towards Zero Waste microsite and its official Facebook page.
- SMS Dr Khor's public announcement of the #RecycleRight CW helped to get the word out on national media for wider public dissemination.
- IPS published the call for application on its official Facebook page on 18 July, providing information on the hotline and the Towards Zero Waste website that interested individuals could access to make their application.
- In addition, MEWR sent out invitation letters to 8,000 randomly selected households in Singapore via direct mailing, to widen the reach to potential applicants. It also sent emails to its partners for assistance to reach out to applicants through their networks.

While making an application online via the Towards Zero Waste microsite or via the phone, applicants had to complete a screener questionnaire. The screener questionnaire was administered over the phone for individuals without access to the website or who preferred to answer the questions with an interviewer.

The screener questionnaire was developed by MEWR and IPS to collect the applicants' background information for assessing the suitability of their application and the selection of a diverse workgroup. The information gathered in the questionnaire included:

- Demographics, e.g., citizenship, age, gender, ethnicity, highest educational level attained, occupation, and housing type
- Recycling patterns
- Involvement in green activities, if any
- Personality, e.g., willingness to use social media to stay in contact with fellow participants to discuss CW-related issues in between sessions

- Ability to commit to all four sessions

The CW received an encouraging response from members of the public, with 305 Singaporeans and PRs having made eligible applications (that is, they were able to commit to all the four sessions on the specific dates). We noted that of these eligible applicants, only nine of them had indicated that they had learnt about the CW from post/mail. The low response rate from direct mailing poses the question of whether the option of mailing out invitation letters was useful, given the costs incurred and the additional recruitment time needed for the invitees to respond to the open call application.

A sampling frame guided the participant recruitment and screening. This was to ensure that the diverse demographics of Singapore society would be represented in the CW. Based on the initial target of 50 participants, we established quotas for the various categories of participants to be selected.

Table 1: Sampling frame for the #RecycleRight Citizens' Workgroup

Gender	Quota (%)
Male	50%
Female	50%
Total	100%

Ethnicity	Quota (%)
Chinese	70%
Non-Chinese	30%
Total	100%

Age	Quota (%)
18-29 years	30%
30-39 years	30%
40-49 years	20%
50 years and above	20%
Total	100%

Recycling Patterns	Quota (%)
Never	20%
Once during this year	20%
Around once a month	20%
Around once a week	20%
Around once a day, or more	20%
Total	100%

Housing Types	Quota (%)
HDB 1-, 2-room/Studio Apartment	14%
HDB 3-room	14%
HDB 4-room	14%
HDB 5-room	14%
HDB Executive/Maisonette	14%
Condominiums/Landed Properties	30%
Total	100%

All the applicants were assessed on their suitability based primarily on the following criteria: (i) their recycling patterns; (ii) their housing types, (iii) their interest and experience in recycling and green issues, and (iv) their ability to commit to all four sessions of the CW.

While it makes sense to recruit participants with a strong interest in recycling or are actively involved in recycling activities, we decided that it was equally important to involve participants who had little or no involvement in recycling. Since the CW's primary objective is to explore and develop ideas to increase households' recycling rates and to help them recycle correctly, it would be useful for participants who had little or no involvement in recycling to share their concerns, insights and ideas on how to increase recycling and to recycle correctly.

In addition to selecting applicants based on their recycling patterns and housing types, the applicants' gender, ethnicity, age, educational level and occupation were considered to ensure diversity in demographics among the selected participants. We paid close attention to the need for diversity of demographics in each quota category. For example, those who have never recycled at all should consist of participants of different ages, genders and ethnicities, and hold

different types of educational qualifications and jobs, if possible. There too was a fair mix of participants with and without any recent involvement in green activities in the past three years. A final number of 48 participants were recruited for the #RecycleRight CW.

Although we had proposed in the original sampling frame to select 10 applicants from those who had never recycled, only nine out of the 305 eligible applicants fell into this category. Hence, all nine applicants were selected for the CW. Unfortunately, upon being contacted, four of them were not able to commit to all the sessions and in the end, five applicants who had never recycled joined the CW. To make up for the low number of selected applicants from the “never recycled” group, we selected more applicants who had recycled “once during this year”.

Similarly, to ensure that participants from the lower socio-economic strata were represented in the CW, we had intended to select about seven applicants (roughly 28 per cent) residing in each of the following HDB housing types: (i) HDB 1-room or 2-room flat/HDB Studio Apartment; (ii) HDB 3-room flat; (iii) HDB 4-room flat; (iv) HDB 5-room flat; and (v) HDB Executive or Maisonette. However, only four out of the 305 eligible applicants had indicated that they lived in a HDB Studio Apartment, 1-room or 2-room flat. While all four applicants were selected, only two were able to commit to all sessions of the CW. As such, we decided to increase the quota for participants living in HDB 3-room flats and eventually, nine participants from this group joined the CW.

We also encountered some challenges in recruiting applicants from the ethnic minority groups. Compounding the problem, several selected applicants from these groups were either uncontactable or had declined the offer to participate in the CW.

EFFECTIVE DELIBERATION

The CJ stems from the notion of deliberative democracy, a model that focuses on the communicative processes of opinion- and will-formation. It is a process that involves listening to different viewpoints, examining and debating a policy problem or issue, before arriving at a decision or coming up with the most optimal solution.¹⁰ Deliberative practices have been useful for getting different segments of the public to form considered opinions and proffer inputs for policy formulation.¹¹ (Refer to IPS' earlier report¹² published on the War on Diabetes CJ for more information on how deliberative practices differ from the more traditional forms of engagement.)

Deliberative processes are characterised by the following features:¹³

- A clear *task or purpose* relating to a specific decision, policy, service, project or programme;
- Discussion among participants during *interactive* events, which could be held at unmediated settings (i.e., face-to-face) or online, designed to provide opportunities for participants to learn from a variety of sources;
- The events are designed to *facilitate learning*, in a way to enable participants to build on and use the information and knowledge they acquire over the course of the exercise;
- The availability of a *range of resources* which can take the form of information, and evidence and views provided by specialists or experts who have different perspectives, backgrounds and interests; and
- *Facilitation of discussions* to minimise the domination of discussions by certain individuals and the exclusion of minority or disadvantaged groups, and ensure a diversity of views.

In addition, effective deliberation should meet the following criteria:

¹⁰ Carpini, M. X. D., Cook, F. L., and Jacobs, L. R. (2004). Public deliberation, discursive participation, and citizen engagement: a review of the empirical literature. *Annual Review of Political Science*, 7: 315-344.

¹¹ Habermas, J. (1991). *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Cambridge, MA: MIT Press.

¹² Soon, C. and Yeo, V. (2018, October 19) *Reflections on the Citizens' Jury for the War on Diabetes*. Retrieved from: https://lkyspp.nus.edu.sg/docs/default-source/ips/reflections-on-the-wod-cj_ips-published-191018.pdf

¹³ Involve.org.uk. *What is Deliberative Public Engagement*. Retrieved from: <https://www.involve.org.uk/knowledge-base/deliberative-public-engagement/>

Inclusivity and Diversity

Ideally, every citizen should participate in a decision-making process. However, that would be a logistical challenge and as such, the next alternative is to gather a panel of participants with a diverse range of experiences and backgrounds.¹⁴ Instead of “representativeness”, which is based on the principle of proportionality and typically requires a much larger panel that is randomly selected,¹⁵ the criterion used for this CW is that of “inclusivity”. Inclusivity could be attained by ensuring diversity among participants in terms of their experiences and demographics.

Fairness and Equality

This second criterion can be assessed at the personal and group levels. At the individual level, every participant in the CW process should be provided the equal opportunity to express his or her opinions and concerns on the agenda. At the group level, opportunities should be created for participants to propose or approve rules that govern the proceedings, to debate and critique proposals, and influence the final decision about the agenda.¹⁶

Knowledge Gain

Participation in deliberative exercises has typically contributed to an increase in participants' knowledge on the topic of deliberation.¹⁷ The type of knowledge gained also extends to the wider political decision-making and policymaking processes. Involvement in deliberative exercises may also improve participants' skills related to democratic participation, such as the willingness to listen, cooperate and compromise, and in formulating and justifying proposals.¹⁸

Efficacy

The concept of efficacy consists of three dimensions — internal efficacy, external efficacy and political trust.¹⁹

Internal efficacy is defined as an individual's evaluation of his own competence and can be measured by his judgment of how his knowledge and skills have improved through deliberation.²⁰ An individual's assessment of the external impact, especially on the political process, of his own

¹⁴ Smith, G., and Wales, C. (2000). Citizens' juries and deliberative democracy. *Political Studies*, 48(1): 51-65.

¹⁵ *Ibid.*

¹⁶ Armour, A. (1995). The citizens' jury model of public participation: a critical evaluation. In Renn, O., Webler, T., and Wiedemann, P. (eds). *Fairness and Competence in Citizen Participation. Technology, Risk, and Society* (An International Series in Risk Analysis), vol. 10. Dordrecht: Springer.

¹⁷ Fishkin, J. S., Luskin, R. C., and Jowell, R. (2000). Deliberative polling and public consultation. *Parliamentary Affairs*, 53: 657-666.

¹⁸ Smith, G., and Wales, C. (2000). Citizens' juries and deliberative democracy. *Political Studies*, 48(1): 51-65.

¹⁹ Grönlund, K., Setälä, M., and Herne, K. (2010). Deliberation and civic virtue: Lesson from a citizen deliberation experiment. *European Political Science Review*, 2(1): 95-117.

²⁰ Hansen, K. M. (2004). *Deliberative Democracy and Opinion Formation*. Odense: University Press of Southern Denmark.

political views and actions is known as external efficacy. This concept is related to one's perceptions that the political system is responsive to citizens' demands and action.²¹

Closely related to external efficacy, political trust is characterised by the extent to which political institutions and actors meet people's normative expectations, for example, responsiveness.²² After having participated in the deliberative practices and having better understood the processes of democratic decision-making, people may report having an increased political trust in government institutions and policymakers.

An outcome of this increased efficacy is a desire for greater future involvement with the topic discussed or in similar deliberative exercises, or both.²³

Applicability

Did the CW meet the targets and objectives set? Did it result in other achievements? What is the impact of the CW on the participants, the quality of policy, on policymakers or on others involved?²⁴ These are some questions that could be raised to appraise the applicability of a deliberative process. In short, applicability is concerned with the deliverables of the process – recommendations developed by the participants. A way to gauge the applicability of the recommendations would be to measure the confidence the participants have in their recommendations.

²¹ Niemi, R. G., Craig, S. C., and Mattei, F. (1991). Measuring internal political efficacy in the 1988 national election study. *The American Political Science Review*, 85(4): 1407-1413; Morrell, M. E. (2005). Deliberation, democratic decision-making and internal political efficacy, *Political Behaviour*, 27(1): 49-69.

²² Warren, M. E. (1999). *Democracy and Trust* (pp. 346-360). Cambridge: Cambridge University Press.

²³ Warburton, D., Rainbow, E., and Wilson, R. (2007, June 28). *Making a Difference: A Guide to Evaluating Public Participation in Central Government*, Involve.org.uk and Department for Constitutional Affairs UK. Retrieved from: <http://www.involve.org.uk/resources/publications/practical-guidance/making-difference>

²⁴ *Ibid.*

Table 2: Summary of the five evaluation criteria

Criteria	Measurement
Inclusivity and diversity	There should be diversity among participants in terms of their experiences and demographics.
Fairness and equality	<p>Personal: Participants have equal opportunities to express their opinions.</p> <p>Group: Participants have equal opportunities to influence the proceedings and final decision.</p>
Knowledge gain	<p>An increase in knowledge among participants on the:</p> <ul style="list-style-type: none"> • Topic discussed • Wider policymaking process • Skills pertinent to democratic participation (e.g., willingness to listen, ability to justify proposals)
Efficacy	<p>Internal efficacy: Participant's judgment of how his political knowledge and skills have improved through deliberation.</p> <p>External efficacy: Participant's assessment that his political views and actions have an external impact on the political process.</p> <p>Political trust: Participant's trust towards government institutions increases due to acquiring a better understanding of the processes of democratic decision-making.</p>
Applicability	<p>Quality of recommendations developed by the participants in terms of:</p> <ul style="list-style-type: none"> • Impact on policymaking • Yielding better recommendations than what would have resulted from traditional processes of public participation

ANALYSIS OF THE #RECYCLERIGHT CITIZENS' WORKGROUP

Our analysis of the CW is based on our observations of the interactions and discussions that took place on all four days and the findings from two polls that were administered during the first (N=48) and the fourth (N=43) sessions.

Throughout the CW sessions, we took notes during the group activities, paying attention to the issues discussed, and the participants' interactions with one another, and with the facilitators, policymakers and the Subject Matter Experts. In the process, we also spoke with a number of the participants who shared their thoughts on recycling-related issues, their experiences with fellow citizens, and how the CW had been conducted, including possible areas of improvement.

The polls were designed to measure participants' responses on the following:

- Their perceived fairness and equality of the deliberative process, including the nature of facilitation
- Their assessment of their contribution as citizens and the external impact of their actions on the policymaking process
- Their knowledge gain
- Their recommendations
- Their experiences with the overall CW process (e.g., what went well in the CW, the key challenges they encountered in the CW and areas of improvement for the CW)

The polls used a mix of closed-ended questions (mostly using a five-point Likert scale ranging from “strongly disagree” to “strongly agree”) and open-ended feedback questions. To evaluate if the CW process had an impact on the participants, whether in terms of knowledge gain or efficacy, some questions in the pre-CW poll (administered on Day One) were repeated in the post-CW poll (administered on Day Four).

By the end of the first session which saw several rounds of discussion and information-sharing (via “ambassadorial cross-sharing”, “World Café” and project team discussion), the participants identified 10 topics related to recycling. They then formed workgroups to further develop ideas and solutions around these topics.²⁵

²⁵ Ten workgroups were formed on Day One, but it became apparent on Day Three that one group, which looked at reducing the contamination of recycling bins via behavioural science, had encountered challenges. It was not

Throughout the four sessions, the participants demonstrated a high level of interest and enthusiasm in the projects they were working on. This was commendable, especially when there was no interval between the first and second sessions, and between the third and last sessions. Furthermore, during the four-week interval between the second and third sessions, many groups conducted research and tested prototypes to assess the feasibility of their ideas.

Figure 1: List of the 10 workgroups formed by participants

Group 1: “Blue Bin & You” national awareness campaign	Group 4: Redesigning recycling bins in household areas	Group 7: E-platforms to promote recycle right	Group 10: Reducing contamination and improving awareness of household recycling via behavioural science
Group 2: Educational toolkit for primary schools: “Green Kits”	Group 5: Nurture recycling influencers in the community	Group 8: Develop 6 Rs²⁶ interest group	
Group 3: Mobile app to encourage Bring Your Own (BYO)	Group 6: Food composting to energy	Group 9: Deposit Refund Scheme	

Inclusivity and Diversity

Our viewpoints are partly shaped by our personal experiences and backgrounds. For participants to be exposed to other perspectives, issues and challenges that they might not have encountered in their daily lives, there must be diversity in viewpoints and experiences. In order to elicit a wide range of views and perspectives from participants in the CW, it was important to bring together people of different demographic variables.

As described in the earlier section (see “Reaching out and recruitment” on page 9), we managed to assemble a CW of participants from different ethnic groups and age groups to a large extent. The participants were also rather diverse in terms of their housing types and educational levels, although slightly more than half of them had university education. About half of the participants were involved in green activities and the participants had varying recycling habits.

able to get support from stakeholders to test out its ideas and one of the three group members had dropped out. In the end, the facilitators encouraged the two-member group to merge with the group working on developing a 6Rs interest group. Hence, there were nine instead of 10 proposals in the report.

²⁶ The 6Rs refer to Reduce, Reuse, Recycle, Repair, Refuse and Repurpose.

The wide range of interests and opinions was clearly evident during the first session when the participants were asked in a group to suggest reasons that could account for 40 per cent of households in Singapore not recycling. Likewise, the participants were forthcoming in offering various ideas to encourage and enable households to recycle correctly. Table 3 lists some of the reasons and ideas put forth by the participants

Table 3: Reasons and initial ideas suggested on Day One

Reasons for low recycling rate	Ideas to help households recycle correctly
Individual factors, such as people's laziness, ignorance and apathy towards recycling (" <i>bo chap</i> " attitude)	Have smart bins that give cheers to people who recycle and reject contaminants
Insufficient recognition for people who recycle	Get media to highlight the end products of recycling so that people would be better informed and encouraged to recycle
Lack of penalties for not recycling	Provide incentives such as conservancy rebates to reward recycling
Packaging design making certain items difficult to be recycled	Provide separate recycling bins
Too many initiatives resulting in confusion and lack of understanding on what needs to be done where	Gamification through organising competitions among constituencies to make it fun and increase recycling rates
Implementation and coordination challenges of recycling programmes	Get communities involved, form "Neighbourhood Recycling Committees"
Low awareness of the idea of "trash to treasure"	Organise educational field trips to recycling plants and waste recovery centres for members of the public, especially children
	Introduce disincentives for not recycling through legislation



Figure 2: The CW sessions were characterised by the exchange of diverse viewpoints and experiences.

Some of the ideas suggested were not directly related to recycling, reflecting the wide-ranging interests and concerns of participants. For instance, one participant mooted the idea of imposing a ban on imported goods that could not be recycled to eradicate the problem at source. Another participant was interested in promoting food waste composting in Singapore. Others wanted to work with supermarkets to reduce the use of Styrofoam. The diversity of viewpoints was noted and appreciated by the participants:

Diversified group with lots of ideas and wisdom. Right mix of likeminded people. (Female, 40-44 years old, recycles around once a week)

People from different walks of life with different contributions made it more conducive to discuss. (Female, 45-49 years old, recycles around once a month)

Design of activities

The facilitators employed a range of tools, including small group discussions, “ambassadorial cross-sharing” and World Café, to foster discussion and elicit feedback. For example, to manage the possibility of information overload, the participants were assigned portions of the information kit to read prior to the CW. On Day One, participants gathered in their assigned groups to discuss the materials, before moving to other groups (which were assigned other reading materials) to exchange learning points. This “ambassadorial cross-sharing” tool was useful in enabling participants to learn from one another, and also in building rapport and camaraderie, which might assist in keeping participant attrition to a minimum.

Often, small group discussions were followed by a large group discussion. For example, on Day One, after participants had discussed the current recycling situation in Singapore in groups of four to five, they were seated in a large circle. Using the Open Space Technology framework, the facilitators encouraged participants to refer to the issues discussed in their small groups to propose the topics they were passionate about working on.

On Day Two, different groups used different deliberation methods, under the guidance of the group facilitators. For instance, one group used the Design Thinking method to draw a storyboard to illustrate their ideas. Two groups were assigned the Flip Flop Debate Activity Method, where a representative from each group took turns to take one minute to present their ideas to the other group. After each presentation, there was a brief Question-and-Answer segment, followed by both groups evaluating their plans.

Such switching between small and big group discussions, and in different formats, helped to break the monotony of the brainstorming process. More importantly, they contributed to the cross-pollination of ideas, which enhanced the quality of the diverse ideas and recommendations.



Figure 3: Some of the participants mulling over the initial ideas proffered during the big group sharing.

Fairness and Equality

Having a mix of participants who are less vocal and those who dominate the discussion is common in group discussions and engagement processes. Hence, it was crucial for organisers to provide a level-playing field for all participants to have an equal opportunity to voice their opinions and ideas, and to give feedback to the recommendations generated. For an equal exchange of ideas to take place, a conducive environment is required, and this can be created by the setting of ground rules. The norms for interaction were determined by the facilitators and communicated to the participants on Day One.

There were a few instances that involved testy exchanges among participants. For instance, during the third session, in the presence of the entire CW, a participant criticised another group's project presentation in a rather blunt manner. This led to a terse and agitated response from the participant who had presented on his group's behalf.

A participant who had wanted to express his disappointment with one of his teammates spoke with us. According to him, that team member was not receptive to other members' ideas and was fixated with pushing through his own suggestions. Despite their facilitator's attempts at mediating the dispute and diffusing the group's tension, a stalemate ensued and it left the participant feeling discouraged. Similar responses were provided in the post-CW survey to the question "What were the key challenges that you and your team encountered in the Citizens' Workgroup?":

Teamwork — working with [person who is] too passionate with what he believes in and forces others to accept his views without listening to other team members' views to achieve our Workgroup goals. (Male, 60-64 years old, recycles around once a day)

Different levels of commitment, ... certain negativities. (Male, 55-59 years old, recycles around once a day)

Notwithstanding these sporadic incidents, most of the participants treated one another cordially and respectfully. This was evident during the "ambassadorial cross-sharing" segment on Day Three, in which the participants were divided into three large groups and moved from group to group to be updated on their fellow participants' projects. Each presentation was followed by questions and feedback from participants, which were useful in pointing out overlooked aspects or in fine-tuning the proposed solutions.

For example, one of the groups had proposed redesigning the blue bin by incorporating a transparent screen on one side of the bin to make visible the contamination problem. Several participants wondered if some people, upon seeing soiled items in the transparent bin, might wrongly think that such items were recyclable and end up doing the same.

The facilitator was also helpful in prompting the presenter to talk about the green dustbin prototype they had proposed to be placed beside the transparent blue bin, to make it convenient for people to throw non-recyclables there instead of into the blue bins.

Throughout that "ambassadorial crossing-sharing" segment, many participants were forthcoming in suggesting and offering information, data and findings, which they had gathered for their own

projects, when they felt that other groups could also benefit from these insights. Even when some participants seemed stumped by the questions posed to them, they were showered with encouragement and moral support from fellow participants who complimented them for their “good ideas”. There was a strong sense of camaraderie and an absence of competition within the workgroup.



Figure 4: The “ambassadorial cross-sharing” segment on Day Three was useful in promoting the exchange of learning points among different groups, and even moral support.

As mentioned earlier, a notable feature of the #RecycleRight CW is the use of a good combination of small and large group discussions throughout the entire process. They provided the participants with ample opportunities to articulate their viewpoints and respond to fellow participants’ ideas. The participants’ appreciation of the listening and feedback fellow participants provided was evident in the findings of the post-CW poll. A large majority of the participants felt that their views were heard and taken seriously.

This finding was also validated by the open-ended responses from some of the participants:

Everyone was respectful and all ideas were heard. Meaningful discussions and suggestions. (Female, 25-29 years old, recycles around once a month)

Participants were candid in sharing their expertise. (Male, 25-29 years old, recycles around once a week)

I was able to meet like-minded people (especially my pilot group) and work in sync on our ideas, there were also a variety of people from different backgrounds and skillsets. (Female, 18-24 years old, recycles around once a week)

Table 4: Fairness and equality

Question	Pre-CW	Post-CW
I felt that my views were heard and taken seriously during the Citizens' Workgroup sessions.	-	90.7%

Percentage is for "Agree" and "Strongly Agree".

Knowledge Gain

More than just an outcome of the CW process, knowledge gain is also an important process enabler in contributing to the development of ideas that are not only backed by evidence but are innovative and applicable. Hence, efforts were made to ensure that the participants, regardless of their socio-economic and professional backgrounds, had a minimum level of subject competency.

Prior to the first session, an information kit was emailed to the participants. The information kit consisted of the Zero Waste Masterplan Public Engagement Report and a factsheet on household recycling. The report contained findings from an online public consultation and focus group discussions on reducing food waste, e-waste and packaging waste, and ways to help households recycle correctly. Included in the report were suggestions like providing incentives to recycle and having a segregation centre for people to deposit their recyclables. As for the factsheet, it contained data from two surveys conducted by NEA and MEWR. Of significance are that around 60 per cent of households recycle regularly and that knowledge about recycling — in terms of identifying items that are recyclable — could be improved.

According to the post-CW survey, 79 per cent of the participants found the information kit useful in providing more background on the topic of recycling.

In addition, days before the start of the CW, MEWR organised four trips for some of the participants to visit the Materials Recovery Facilities run by Veolia, Colex and Sembcorp. Such trips were beneficial in giving the participants a first-hand encounter of how recyclables deposited in the blue bins were painstakingly sorted before being compacted and sent for processing into other materials.

Given the access to various information sources, close to 98 per cent of the participants felt that the CW process helped them to understand the challenges posed by contamination in recycling bins and chutes. Furthermore, the participants did not waver in their belief that it was important for Singaporeans to recycle, with about 95 per cent of them believing so, pre- and post-CW.

Conversely, there was a slight decrease in the participants' confidence in Singapore's recycling efforts, from about 39 per cent to 30 per cent. While it may seem counter-intuitive at first glance, the decrease in participants' confidence could be attributed to their interactions with and learning from Subject Matter Experts, policymakers and fellow citizens on the realities relating to the contamination of recyclables and the challenges of getting more people to recycle.

While there was a decrease in participants' confidence, we observed a positive impact that the above interactions and mutual learning had on their perceived knowledge gain. When polled on Day One, about 47 per cent of the participants felt that they were better informed about public policies and the government than most people. At the end of the CW, the percentage went up to close to 70 per cent.

Table 5: Knowledge gain

Question	Pre-CW	Post-CW
I am better informed about public policies and the government than most people.	46.9%	69.8%
How confident are you that you know how to recycle correctly?	51% (Confident/Very confident)	76.8% (Confident/Very confident)
I am confident in Singapore's recycling efforts.	38.8% (Confident/Very confident)	30.2% (Confident/Very confident)
How important is it for Singaporeans to recycle?	95.9% (Quite important/Very important)	95.4% (Quite important/Very important)
The information kit distributed before the Citizens' Workgroup was useful in providing more background on the topic of recycling.	-	79.1%
The Citizens' Workgroup process helped me understand how contamination is a problem for our recycling bins and chutes.	-	97.7%
The external subject matter experts at the second session of the Citizens' Workgroup on 22 Sep 2019 were useful in providing guidance to my project team.	-	79.1%

Percentages are for "Agree" and "Strongly Agree" unless otherwise stated.



Figure 5: Through their involvement in the CW, many participants became more confident of their knowledge on recycling.

Equally important, through their research and prototyping of ideas, which entailed interviewing and seeking collaboration with residents, companies and community leaders, some of the participants gained important insights into the practical challenges involved in policymaking. For instance, one of the workgroups had wanted to use behavioural science to reduce the contamination problem in recycling. However, during the four-week interval, the members found it a challenge to obtain approval from grassroots organisations and Town Councils to carry out research and data collection:

Our group had too little time to work on our project especially as we needed to gain the approval of multiple stakeholders and collect sufficient data to obtain enough conclusions from the project. Some stakeholders, like the TC (Town Council), were uncooperative and possibly belligerent to the proposed solutions [sic], often making ill informed, sweeping assumptions on the behaviour of the citizens based on few observations. (Male, 25-29 years old, recycles around once a month)

When asked in the post-CW survey to reflect on their experiences, in terms of the insights they have gained, some participants also mentioned about the constraints faced by policymakers:

The ministry's constraints in financial terms and the amount they could do with constrained resources in terms of communications... Gained insight on the comms strategy of MEWR for the current situation and understood more about the challenges they face in messaging. (Male, 25-29 years old, has never recycled)

A good mix of experts as resource

Besides the information kit and field trips, the participants' expanded knowledge of recycling/environmental issues and policymaking constraints could be attributed to their interactions with the Subject Matter Experts during the second session of the CW. Invited by MEWR, these experts were from diverse backgrounds and sectors relating to environmental protection. For instance, one worked on environmental policy research in a think-tank, another was a primary school teacher who has introduced recycling activities to her students, and several others were from non-governmental organisations that promote ground-up green activities. In addition, representatives from environment-related governmental agencies also joined the discussion.

Given that the participants were still at an early stage of their discussions on Day Two, their interactions with the Subject Matter Experts were mainly information-seeking in nature. Generally, they were interested in learning about the work and projects the experts were involved in and the recycling situation in Singapore. Only a small number of participants were ready and took the opportunity to seek the Subject Matter Experts' advice on the projects they were working on. The following captures some of the interactions participants had with the various Subject Matter Experts.

- One participant had asked a Subject Matter Expert, who was an eco-volunteer with a religious organisation, on what could be done to educate the public on recycling. The Subject Matter Expert replied jokingly, "Blue bins don't talk, live people will." She described how volunteers were stationed at her organisation's recycling collection points to approach and interact with members of the public and to educate them on how to recycle, reduce and refuse.
- One group wanted to engage the community and raise awareness of the blue bins. The Subject Matter Expert they consulted helped them to "scope" the project further by quizzing them about their target audience and the HDB constituency that the project would be reaching out to. The Subject Matter Expert, being an educator herself, suggested that working with schools on environmental issues would be a viable strategy to reach out to the wider community as children would often involve their parents in their school projects. However, she also gave the participants a reality check — some children found recycling a hassle and the teachers had to organise competitions for them and their parents to get them excited about recycling.

To a smaller extent, a few Subject Matter Experts also challenged the thinking and proposals of some groups. Upon learning from several participants that they had wanted to develop an app as part of their solution, a Subject Matter Expert asked them if they had factored in budgetary considerations and whether a similar app already existed in the market. The experiences and insights proffered by some of the Subject Matter Experts also prompted at least one participant to see the recycling issues from a wider perspective:

Do we need everyone to recycle right, or just the right people to do recycle right? This was a question raised by one of the Resource Persons [sic]. I do not have any answer or responses, yet I feel it is useful. (Female, 25-29 years old, recycles once a week)

The post-CW survey found that about 79 per cent of the participants agreed or strongly agreed that these Subject Matter Experts were useful in providing guidance to their projects:

Bringing external stakeholders to engage with us and help us better understand the recycling efforts and projects that were being done already. (Male, 18-24 years old, recycles once a year)

A small minority felt differently about the deployment of Subject Matter Experts. One participant we spoke with during Day Two felt that it would have been more useful for the consultation with Subject Matter Experts to take place before they had decided on the project topics and had their groups formed. She added that after having spoken with the Subject Matter Experts, she and her teammates felt that the solutions they had come up with might not address the problem they had identified earlier, and they might have chosen to work on another topic altogether. Another participant noted in the post-CW survey that the expertise of the Subject Matter Experts should match the topic and the solution that the groups were studying:

Our experts were very well-versed in sustainability and recycling, but when it came to helping us make a product/process, it would have been better if we could consult domain experts, e.g., Product Designers. (Male, 18-24 years old, has never recycled)

The consultation with subject experts should be done after reviewing project needs. (Female, 18-24 years old, has never recycled)

The fact that Day Two took place a day after Day One meant that there was little response time for the Secretariat (the team from MEWR leading the CW) to curate a group of Subject Matter Experts, whose expertise and experience could be matched to groups based on the nature of the problem and solution they were working on. Due to the back-to-back scheduling of the first two sessions, the Secretariat was also unable to seek participants' views on which Subject Matter Experts they would like to consult.

For future CWs on a similar topic, besides experts working on environmental sustainability, it would be useful to include technology and communications experts in the line-up of Subject Matter Experts. For instance, the groups working on the #DabaoRight app and the redesigning of the blue bin would have benefitted from speaking to a tech developer and a design thinking specialist, respectively.

Efficacy

Internal efficacy — Participants' perceptions of their role

Based on the survey findings, about 84 per cent of the participants believed that the CW experience had made them more confident in their ability to contribute as an active citizen. The survey also showed an increase in the participants' sense of internal efficacy after the CW. About

70 per cent of the participants agreed or strongly agreed with the statement “Citizens like me have a say in what the government does”, compared with 61 per cent of participants feeling so when polled on Day One.

Table 6: Internal efficacy

Question	Pre-CW	Post-CW
Citizens like me have a say in what the government does.	61.2%	69.8%
The Citizens' Workgroup made me more confident about what I can contribute as a citizen.	-	83.7%

Percentages are for “Agree” and “Strongly Agree”.

To a certain extent, the participants’ internal efficacy was shaped by their interactions with and impressions of their teammates in the CW. According to their open-ended responses in the post-CW survey, the participants noted that their teammates were committed, enthusiastic and responsible towards their projects, and that the discussions took place in a respectful and open climate. Such interactions demonstrated the positive side of active citizenry and were likely to have enhanced the participants’ confidence in the value of their contributions, as the following responses attest:

Encouraging to see other interested citizens caring for the development in Singapore; a different experience from hearing Singaporeans complain about the government. (Female, 50-54 years old, recycles around once a day)

The people [sic] very passionate and willing to share ideas, cooperate and had hope for a more sustainable and better Singapore. (Female, 18-24 years old, recycles around once a month)

The internal efficacy of the participants could be further illustrated by the fact that almost all the groups had conducted research and collected data at their own initiative in order to develop their proposals. Below are some examples of the outreach, consultation and research done by the groups. What was highly commendable was that the groups developed their plans for research and pilot-testing work, and spent their personal time on weekday nights and weekends collecting data and gathering feedback from the public. All the work was accomplished within the four-week gap between the first two and last two sessions.

- The three-member group looking into proposing a Deposit Refund Scheme for beverage containers roped in their family members to help with administering their online and door-to-door surveys. The surveys were aimed at finding out the respondents’ recycling rates and whether they supported such a Deposit Refund Scheme for beverage containers. Between the second and third sessions, the group managed to collate about 1,000 responses for their surveys.

- The group that proposed the #DabaoRight app conducted two surveys, one with about 600 members of the public and another with 22 merchants to determine if there was a market for the app.
- The group that came up with the idea for food composting and converting food waste to energy went door-to-door at selected HDB flats on two nights to recruit residents to participate. They subsequently spent seven evenings collecting food waste from residents.
- Another group which worked on nurturing recycling influencers among corporates, religious leaders and students, visited companies, Residents' Committees and mosques to explore the use of gamification to raise awareness of recycling.
- Other groups created videos documenting their outreach efforts, developed a mascot (for the Deposit Refund Scheme), and designed publicity materials and games to engage the community on the topic of recycling.



Figure 6: One of the CW groups presenting their project recommendations to policymakers, Subject Matter Experts and fellow participants during the last session.

Excellent deployment of scaffolds

Throughout the sessions, the facilitators deployed scaffolds as useful frameworks that guided the participants' discussions. This was a very critical feature of the process as it made brainstorming, deliberation and consensus-building more achievable tasks for the participants, many of whom were new to the process of collective problem-solving and co-creation of solutions.

One of the strategies the facilitators employed to guide discussions was the “Force Field Analysis” questioning used on Day Two. To guide the participants in the brainstorming process, the facilitators challenged them to come up with:

- A list of enablers that would support their ideas or recommendations
- A list of barriers that could hinder the same ideas or recommendations

Another example of the scaffolds used was the “Flexibility Matrix”, also deployed on Day Two, in which the participants were asked to consider as a small group which, among “resources, scope and schedule”, was of a lower priority for better project management. Such scaffolds were aimed at helping the participants come up with realistic recommendations.

Given their diverse backgrounds and experiences, it was expected that the participants would have different ideas on what constituted a good recommendation to help households improve the ways they recycle. To minimise such subjectivity, the facilitators introduced a set of criteria to the participants to guide their voting decisions on Day Three:

- The relevance of the recommendation in relation to the challenge statement
- The effectiveness of the recommendation
- The scalability of the recommendation
- The sustainability of the recommendation

The “relevance” yardstick was particularly useful as it helped participants to assess and sift out those recommendations that did not directly address the challenge statement.



Figure 7: Scaffolds were skilfully used throughout the CW sessions to structure the participants' discussion.

External efficacy — Participants' perceptions of their impact on political process

Findings from the polls suggest that the #RecycleRight CW process has engendered a positive, possibly long-lasting impact on the participants. About 86 per cent of the participants would consider participating in future citizen engagement opportunities with MEWR, and a similar proportion (about 88 per cent) were keen to be more actively involved in initiatives to promote recycling correctly. Equally encouraging is the finding that about 93 per cent of the participants were keen to continue working with their group members on their CW recommendations.

Beyond active citizenry and civic engagement, the participants' involvement in the CW has sustained their interest in recycling, with about 81 per cent of the participants discussing the issue with other people "at least once a week" or "once to a few times each month", up slightly from about 78 per cent at the start of the CW. There could be a spill-over and multiplying effect as participants continue discussing and raising awareness of recycling-related issues with people in their social networks (such as family members, friends and colleagues) post-CW.

There are two possible reasons for the participants' strong interest in joining future citizens' engagement initiatives by MEWR and projects that promote recycling correctly as well as following up on their recommendations proposed during the CW. First, as mentioned, the participants generally had a positive collaborative experience with their teammates. As such, the idea of extending this partnership beyond the CW sessions could appeal to them on top of appealing to their interest in environmental issues.

Second, there was strong recognition among many participants that much work remains to be done to improve the recycling situation in Singapore. Some participants had admitted that Singapore's recycling record was "far worse" than they had imagined, and that Singapore trailed behind other countries in terms of its recycling culture. Participants were surprised to learn of the extent of the contamination problem of recyclables in the blue bins as well as the limited knowledge local residents possessed in terms of what can and cannot be recycled, and that recyclables have to be cleaned and dried before being deposited in the blue bins.

The group that came up with the idea of reducing food waste noted that members of the public whom they reached out to did not know of Pulau Semakau and a plant in Ulu Pandan that converts food waste to energy. Hence, the recycling challenges faced by Singapore could have motivated the participants to continue their involvement in this area:

That recycling is really about changing one's mindset and attitude. Being ignorant is not going to help the problem. We need citizens to be aware of the issue at hand and perhaps change their perspective. And perhaps this can be a push factor in being able to recycle right. (Female, 30-34 years old, recycles around once a day)

An insight that I did not know of before and realised after the workgroup, is that unlike common notions that it is difficult to involve the elderly in recycling, I have found out that it is also difficult to involve young families who do not find the importance of spending time

and involving their young children in recycling. (Female, 18-24 years old, recycles once a day)

Table 7: External efficacy

Question	Pre-CW	Post-CW
After my Citizens' Workgroup experience, I am keen to be more actively involved in initiatives that promote recycling right.	-	88.4%
I will consider participating in future citizen engagement opportunities with the Ministry of the Environment and Water Resources.	-	86.1%
I am keen to continue working on the recommendations proposed by the Citizens' Workgroup with my fellow participants and the Ministry of the Environment and Water Resources.	-	93%
How often do you discuss issues relating to recycling with other people?	77.6% (Once to a few times each month/At least once a week)	81.4% (Once to a few times each month/ At least once a week)

Percentages are for "Agree" and "Strongly Agree", unless otherwise stated.

Real-time support from MEWR

As the CW was focused on the co-creation of solutions, the pilot-testing of these ideas and data collection were crucial to the success of the groups' projects, in terms of their applicability in the real world. However, these activities required the involvement and cooperation of residents, business entities, and government agencies such as Town Councils and Residents' Committees. Some participants might not have access to these groups, in addition to time and funding constraints. Hence, timely assistance rendered by MEWR was of utmost importance.

MEWR's assistance to all the groups could be categorised into three types of responses:

- Information-sharing — For instance, for the "Blue Bin and You" group that wanted to raise awareness of the blue bin through a national campaign, MEWR briefed the group on the Year Towards Zero Waste campaign. It also shared findings from the post-campaign survey and its key learning points with the group. As for the group working on inculcating green habits in children, MEWR shared information on NEA's Love Your Food @ Schools programme with the group members.

- Funding — The Deposit Refund Scheme group required funding for transport, printing of flyers and T-shirts, and materials to produce props for its mascot. MEWR approved its request for funding. Similarly, MEWR approved the funding request from the participants working on developing a 6Rs interest group. The group was able to purchase and distribute small bins to households to encourage them to take up recycling.
- Contact-building — For the group working on energy generation from food waste, MEWR helped to link the group up with PUB to arrange a visit to the Ulu Pandan Co-Digestive Facility. MEWR also connected the group to two schools with composting sites. As for the #DabaoRight app group, MEWR introduced its members to partners that might be interested in developing an app.

The assistance MEWR rendered to the groups was especially pertinent and critical during the four-week break. The close contact between MEWR and the participants helped the former to keep track of the groups' progress and provide timely responses to their needs. The efforts made by MEWR were noted by some of the participants:

Access to MEWR's assistance was invaluable in connecting us to the sources we wished to talk to. (Female, 45-49 years old, recycles around once a day)

As an organisation, MEWR has been open and encouraging in our pursuit of ideas. MEWR also knew when to hold back. (Female, 25-29 years old, recycles around once a week)

Political trust

A strong sense of political trust was also observed in the participants, as the pre- and post-CW polls have shown. There was an increase in the number of participants who agreed that the government cared about what citizens thought and that it was committed to partner citizens to build Singapore's future. These findings were also reflected in the open-ended responses provided by several participants:

I am pleased to know that the government organises this workgroup to get inputs from residents and is willing to consider the recommendations and implement them. (Male, 30-34 years old, has never recycled)

The informal exchanges between government and civilians were useful in building trust in the process. (Female, 30-34 years old, recycles around once a month)

A factor that could have accounted for the participants' strong political trust was the presence of SMS Dr Khor in the first, second and final sessions of the CW. During the sessions, SMS Dr Khor not only listened to the participants' recommendations, she also spent time interacting with them to learn about their personal experiences. During the final session, following the participants' presentations, SMS Dr Khor commended them on the quality of their ideas and the effort they made in engaging the ground to develop their projects. She said their recommendations were well thought through and reflected their good grasp of the challenges. She further noted that given the diversity of the participants, there was a good mix of experiences and different knowledge of recycling systems. Describing some of the findings as "meaningful", SMS Dr Khor promised the

participants that she would read the report in detail and respond to every recommendation, adding that she looked forward to working with them to pursue some of the ideas.

Besides SMS Dr Khor, policymakers from MEWR and NEA were present throughout the sessions, with some of them joining the participants during brainstorming and discussion. Their inputs from the policymaking angle were helpful in informing the participants of the feasibility of their proposed solutions. Similarly, the involvement of these policymakers helped to signal to the participants that government agencies were interested in and committed to working with citizens to better Singapore's future.

Table 8: Political trust

Question	Pre-CW	Post-CW
I believe the government seriously considers suggestions made by citizens like me at public engagement sessions.	71.4%	72.1%
The government cares about what citizens like me think.	75.5%	81.4%
I believe that the government is committed to partner citizens to build our future Singapore.	85.7%	90.7%
It was useful to have MEWR and National Environment Agency (NEA) officers present at the sessions.	-	93%

Percentages are for "Agree" and "Strongly Agree".

However, the participants' perceptions of whether the government seriously considered the suggestions made by citizens at public engagement sessions did not register a significant change. The percentage of participants who agreed and strongly agreed with the statement stood at close to 72 per cent, before and after the CW. In fact, there was a slight decrease — from 22.9 per cent to 16.3 per cent — among the participants who had selected the "strongly agree" option. The number of participants who have remained ambivalent (that is, those who had indicated "neither disagree nor agree") was also constant, at about 23 per cent.

It is possible that some of the participants had responded to the statement, thinking of public engagement sessions in general and not specifically in reference to the CW. Their previous experiences with public engagement sessions like focus group discussions and town hall meetings could have also coloured their perceptions and therefore, their responses. Furthermore, participants could have responded to the statement with their own recommendations in mind and since they were uncertain if their recommendations would be accepted by MEWR for implementation, they might have had certain reservations regarding the statement.

Applicability

In terms of outcomes, the CW has largely met the initial targets of co-creating solutions and submitting a report to SMS Dr Khor after the final session. Of the nine proposals contained in the report, most of them directly addressed the challenge statement of helping households in

Singapore improve their recycling. These included the “Blue Bin and You” national campaign project which aimed to raise awareness of recycling among lower-income families, the non-English speaking, senior citizens and domestic helpers; and the “e-Kampung Recycling Support Group” that proposed launching an Instant Messaging platform (e.g., WhatsApp and Telegram) for residents in identified housing estates to encourage them to adopt appropriate recycling practices.

However, a few groups had put forth recommendations that did not directly address the challenge statement of getting people to recycle correctly. For example, the proposed Deposit Refund Scheme for beverage containers and the #DabaoRight app were upstream measures.

In fact, during the first session, a significant number of the ideas proposed by the participants as a big group were remotely related to the challenge statement. These included banning non-recyclables at the source and reducing the use of Styrofoam. MEWR and IPS alerted the Chief Facilitator of this discrepancy and the participants were promptly reminded of the challenge statement. Subsequently, during the small group discussions, the facilitators nudged the participants repeatedly to align their proposals with the topic of recycling correctly. Nevertheless, some groups felt strongly about their ideas and MEWR decided to respect their positions and allowed them to continue developing their ideas.



Figure 8: Visual representations of the groups' finalised ideas displayed on Day Four.

The steadfastness as demonstrated by some of the groups to their proposals probably reflected the confidence they had in their ideas and knowledge. Certainly, the participants had greater confidence in their recommendations and their recycling knowledge after the CW process, as compared to the start of the CW. At the start of the CW, 51 per cent of the participants were confident that they were recycling correctly. The percentage went up to 76.8 per cent at the end of the CW, an increase of 25 per cent.

Table 9: Confidence in recommendations

Question	Pre-CW	Post-CW
How confident are you that you know how to recycle correctly?	51% (Confidently/Very confidently)	76.8% (Confidently/Very confidently)
I believe the Citizens' Workgroup generated recommendations that are worthy of government support.	-	97.7%
I believe other Singaporeans will support the Citizens' Workgroup's recommendations.	-	81.4%

Percentages are for "Agree" and "Strongly Agree" unless otherwise stated.

The participants' confidence stemmed partly from the knowledge they had gained from their involvement in the CW. Such knowledge gain was accumulated from numerous sources: first, the interactions with Subject Matter Experts, policymakers and fellow participants during discussions; second, the learning from the information kit and field trips to the Materials Recovery Centres; and third, the insights from conducting their own surveys, interviews and data collection.

Given the wealth of information they had gathered throughout the entire CW process and the fact that their proposals were the product of numerous rounds of discussion, critique and refinement, it was perhaps not surprising that the participants were confident that their recommendations would be well received. Close to 98 per cent of the participants felt that the CW recommendations were worthy of government support while about 81 per cent felt that the recommendations would be supported by Singaporeans.

Interestingly, it appears that the participants were more confident that their recommendations would be supported by the government (97.7 per cent) than by their fellow citizens (81.4 per cent). This could be due to the participants' increased awareness, as a result of their participation in the CW, of the challenges faced in encouraging people in Singapore to recycle and recycle correctly.

Several Subject Matter Experts also shared with the participants the difficulties they had faced in sustaining recycling initiatives as some people found it a hassle to do so. Coupled with the widespread misconceptions among the public about what items could be recycled, the persistent contamination of the recycling bins and the lukewarm response of the public towards recycling, the participants might feel that their recommendations would gain weaker traction with the wider society.

Four pilot projects in the pipeline

On 23 November 2019, MEWR held a dialogue session with the CW participants in which SMS Dr Khor delivered the ministry's feedback to all the recommendations. Overall, MEWR supported

all the nine recommendations. Noting that some of them contained similar concerns and suggestions, it announced that it would support four pilot projects:

- **Developing a sustainable community** — MEWR/NEA will work with the participants to identify a few communities to co-develop and trial the recommendations, such as nurturing community advocates of recycling, setting up community-level e-platforms to raise awareness of recycling correctly and engaging targeted groups like foreign domestic helpers and the elderly on recycling.
- **Piloting a new blue bin design** — MEWR/NEA will work with the participants to further develop ideas for redesigning the blue bin and pilot the prototypes in a few locations.
- **Researching into the Deposit Refund Scheme** — MEWR/NEA will study the proposal for a Deposit Refund Scheme and its feasibility in Singapore.
- **Developing the #DabaoRight app** — MEWR will connect the group to the relevant experts and partners who can assess the viability of the app and further develop the idea. It will link the group to funding opportunities as well.

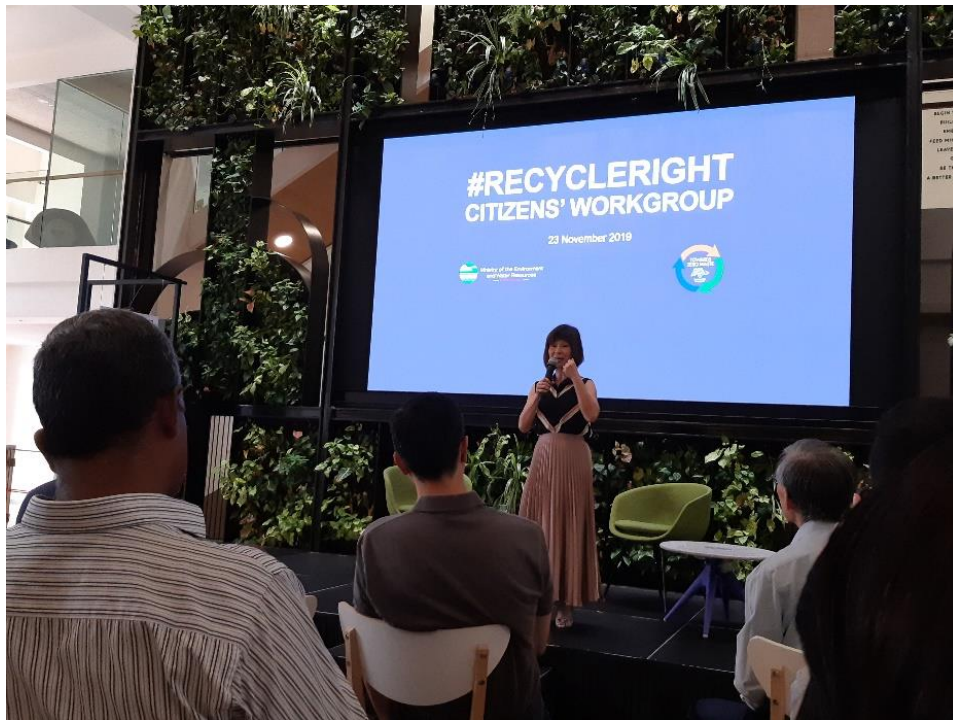


Figure 9: SMS Khor sharing MEWR's responses to the CW recommendations during the dialogue session on 23 November 2019.

MEWR has been finalising the scope of the projects in the first quarter of 2020, and it has invited the CW participants to work together on implementing these recommendations. To date, 21 participants have taken up MEWR's invitation to continue the co-creation journey.

CONCLUSION

Although there was no interval between the first and second sessions, and between the third and fourth sessions, the enthusiasm and engagement displayed by the participants towards their projects showed little signs of abating. The #RecycleRight CW saw a small attrition — four participants had dropped out by the final session, citing work commitments and family emergency as reasons. The group that was most affected by the attrition was the one looking into developing a Deposit Refund Scheme for beverage containers, for it saw its group reduced from five members to three. Nevertheless, the group overcame the manpower crunch by roping in their family members to help with data collection.

Recycling was clearly a topic the participants were passionate about; many were seen taking notes during group discussions and consultations with the Subject Matter Experts. Furthermore, in part due to the goals they were asked to meet (develop and test a prototype or solution), their level of commitment to the process and their outputs reached new heights in the application of the CJ method in Singapore. During the month-long interval between the second and third sessions, most of the groups embarked on evidence-gathering and data collection for their recommendations (e.g., administering surveys and conducting interviews), and pilot-testing to generate findings that would support their recommendations. The commitment of the participants to their projects and to the CW was highly remarkable and commendable.

In the earlier sections, we identified what worked well for the #RecycleRight CW. The following presents our recommendations for future government-citizen co-creation initiatives.

Allow for Co-designing of Process for Greater Empowerment

For fairness and equality to prevail in a CW, participants should ideally be given the opportunities to propose or approve rules that govern the proceedings, to debate and critique proposals, and influence the final decision about the agenda. For instance, the ground rules for interaction were set a priori (cue cards printed with “Ground Rules” were pasted onto flip chart boards that were placed throughout the room) and the rules stated that participants were expected to “be 100% present, respect diversity and focus on the topic.” The rules seemed to be more geared towards getting the participants to be productive in their discussion, than to shape the interactions among participants. Deliberation over what constituted ground rules for this CW could have helped the participants better internalise and exhibit the desired behaviour and norms of citizen deliberative engagement.

While participants' views were generally heard throughout the process, fairness and equality could also be cultivated through giving participants the chance to shape the CW process. For one,

time could be allocated during the first session for participants to discuss as a group the aspects that are salient to the entire process — an intensive process that required people to work closely together over a sustained period of time. In the process of making decisions involving the group's output (e.g., the number of recommendations to include in the report, the acceptance level or voting threshold) and norms for communication (e.g., how people expect one another to behave, the appropriate channel of communication and collaboration), participants would have learnt to listen to divergent opinions, find a middle ground and to work out compromises — skills highly useful and transferrable to their recycling-related projects.

In the case of the #RecycleRight CW, the facilitators determined many aspects of the CW on behalf of the participants. For example, that the top six ideas with the highest number of votes would be presented to SMS Dr Khor was conveyed by the Chief Facilitator to the participants without soliciting feedback from them. When the participants were still exploring possible topics to work on, they were informed that there would not be more than 10 topics as there were about 50 participants and each group should consist of four or five members. The post-CW poll highlighted some participants' reservations:

If all teams got to present their ideas, that would be good. (Male, 18-24 years old, recycles once a year)

It would also be good if all the groups had a chance to present to the panel as everyone worked very hard and spent a lot of effort on their projects. This would also help to reduce the number of deliverables as the pitches would not be required. It would also give more time to prepare presentations and reports. (Female, 18-24 years old, recycles around once a day)

As such, the entire process felt rather top-down and task-oriented. Since the participants were neither introduced sufficiently to the concept of citizen deliberative engagement nor empowered to take ownership of the process, they had mostly accepted the programme's format, instructions and "deliverables" without much questioning. The above feedback has demonstrated that citizens have valuable suggestions that could help to refine the engagement and deliberative process, and avenues should be provided to take into consideration their ideas and voices.

With the focus on the co-creation of solutions, the facilitators prioritised the deliverables (final products or prototypes) over the process of the CW. This clearly showed that the objective of the CW had implications for not just the design of the deliberative engagement exercise but also the nature of facilitation. For future CWs, participants could be empowered to discuss and make collective decisions pertaining to group norms and the voting threshold. Such decision-making opportunities will imbue the participants with a sense of ownership of the process.

Ensure Consistent Quality of Facilitation

The participants' feedback on the role of the facilitators can be described as ambivalent. On the one hand, about 86 per cent of the participants felt that the facilitators had played an effective role at the sessions. This could be due to the facilitators' constant tracking of the participants' progress

and nudging them towards the accomplishment of deliverables, such as the presentation slides and the report.

Table 10: Facilitation

Question	Pre-CW	Post-CW
The facilitators played an effective role at the sessions.	-	86.1%

Percentage is for “Agree” and “Strongly Agree”.

Some participants also had positive remarks for the facilitators, when asked the question, “What went well in the Citizens’ Workgroup?”:

The facilitators really kept to the time to make sure work was done, and time was kept. (Female, 30-34 years old, recycles around once a day)

The facilitation of discussions for idea generation and grouping like-minded individuals to propose and work on the project and submit the recommendations. (Male, 30-34 years old, never recycled)

On the other hand, quite a number of the participants found the facilitation to be pushy, target-driven and not conducive to their ideation process:

Being pushed to create specific outputs by the facilitators, even when they didn’t contribute much to our project. Examples include having to discuss how the scope of our project had changed (ours hadn’t) and the challenges we faced in the project and how we would address it (we had already addressed these during our personal time). (Female, 35-39 years old, recycles around once a day)

The idea formation process... there seemed to be a certain format or “checkboxes” the facilitators wanted the groups to meet even though it may not be applicable to them or the style of brainstorming. So instead of being helpful and pushing the teams along, it was simply hindering and frustrating that we needed to fulfil their wishes although it didn't seem to help us. (Female, 18-24 years old, recycles around once a month)

Facilitation — it sometimes felt like we were being squeezed through an artificial process. This was disruptive and interrupted the creative/collaborative process at times. (Female, 35-39 years old, recycles around once a day)

In addition, the quality of facilitation was inconsistent. Some facilitators were more proactive than others in guiding the participants’ discussion. Others made an effort to ensure every participant in the group had the opportunity to voice out his or her opinions. However, some facilitators took a rather passive stance during discussion. For example, during the first session, a few facilitators were seen standing behind the seated participants, taking notes rather than guiding the discussion. In one instance, a facilitator seemed to have lost control of the group discussion. He was seen clarifying a point raised by a participant, but ended up speaking to that participant, while the others broke into conversations among themselves. At the same time, another participant was

engrossed in checking his mobile phone. There was little attempt by the facilitator to steer the group back to the discussion.

Moreover, the number of small groups outnumbered the facilitators; each facilitator ended up overseeing the discussion of two groups. Hence, a facilitator had to switch groups from time to time. Such distractions were likely to affect the quality of facilitation to a certain degree. The only time the “one facilitator-to-two groups” arrangement worked was during the final session, when one group listened to and critiqued another group’s presentation rehearsal and vice versa.

Better Scheduling

Many participants — 40 per cent of them — felt that not enough time had been allocated for the CW, be it for discussing and developing ideas, conducting research and collecting data, or writing the report. Such sentiments were captured in the post-CW poll and the open-ended responses.

Table 11: Time allowance

Question	Pre-CW	Post-CW
The four sessions of the Citizens' Workgroup provided enough time for discussions on the topic.	-	60.5%
The four-week gap between the second session of the Citizens' Workgroup on 22 Sep 2019 and the third session on 19 Oct 2019 was sufficient for my project team.	-	25.6%

Percentages are for “Agree” and “Strongly Agree”.

It was intense from the beginning and has been a battle with time. (Male, 40-44 years old, recycles around once a month)

Throughout the workgroup, the timeline for many sections seemed a little too tight. For example, on the first day, the many exchanging of groups [sic] were very thought provoking but there was insufficient time to allow opinions and ideas to be properly shared and for them to sink in before we had to move on to the next group. (Female, 18-24 years, recycles around once a month)

Given that the CW’s target did not stop at the co-creation of ideas but went a step further to co-creating solutions, which required the pilot-testing of ideas in many cases, we suggest that future CWs with similar objectives to incorporate at least one additional session. The additional session will spread out the tasks and give the participants greater bandwidth for their projects.

Organising the CW in back-to-back sessions also had implications on the deployment of Subject Matter Experts. With the Subject Matter Experts being scheduled to meet the participants on the second session, MEWR had to prepare the list of experts in advance. It was not feasible to align the Subject Matter Experts’ expertise with the participants’ project interests.

Participants to Get More Information in Advance

When asked in the post-CW poll about the areas for improvement, many participants indicated that they did not really know what to expect from the CW. They said that communication and information from MEWR came at the last-minute and was unclear at times. Of concern were the deliverables (e.g., the presentations and report) that had to be completed by the end of the CW and the format (e.g., PowerPoint slides) of these deliverables. Clarity in communicating the information would reduce the second-guessing among participants on the appropriate formats for their presentations and report. Equally important, it would have been useful, they said, if the deliverables had been made known to them either prior to or at the start of the CW. Some of the participants' feedback included:

Also, communication between MEWR and the participants were also last-minute and sometimes vague. Participants did not know what to expect prior to signing up for this workgroup. Subsequent to the presentation and submission of our ideas and proposals, we are also unsure of what is in it for our projects. I think it really boils down to the communication of what MEWR hopes to achieve out of this Workgroup, and to what extent are they willing to support the ideas presented, for example, in terms of logistics and funding. It is only with this information that we are able to work within the expectations of MEWR. (Male, 25-29 years old, recycles around once a week)

Setting expectations upfront. We didn't know that we would have to test and execute projects ourselves, within such a short time at that. (Female, 35-39 years old, recycles around once a day)

When I signed up, I had the impression that we would review the report and evaluate or act on recommendations to see if they were feasible. During the workgroup, there was time pressure to come up with ideas on the spot and it felt quite rushed, especially on Day 1 and Day 2. (Male, 18-24 years old, has never recycled)

The fact that some participants were unaware that the CW process required them to discuss and generate ideas, and submit a report to the Ministry, suggests that advance notification might not be sufficient. Clearly, the Singapore public needs to be educated on what a citizen deliberative engagement process entails. Singaporeans are more accustomed to participating in focus group discussions and town hall-style meetings where the engagement ends at the solicitation of feedback. Coming up with recommendations through robust discussion with fellow citizens and presenting a report to policymakers is fairly uncharted territory. With greater media coverage and with more citizens coming onboard similar citizen engagement exercises, perhaps future participants would be more prepared for the rigours of a CW.

On a related note, some participants mentioned that they had been informed of their selection about one-and-a-half weeks before the first session and they had to adjust their weekend plans to participate in the CW. Earlier notification of their selection would be helpful. Earlier notification also provides the buffer for situations where selected applicants were uncontactable or declined to accept the offer to participate in the CW. Some applicants who had been rejected earlier were

later invited to participate in the CW. Such contradictory actions not only created confusion but may have reflected negatively on the organisation of the CW.

Bandwidth Required of Agency

While experiencing hiccups on the ground is useful for shedding light on the constraints faced by policymakers in implementing solutions, it would be a pity if such barriers were to lead to the termination of a project. There were 10 groups originally in the CW; a group consisting of three members had wanted to look into solutions that would reduce the contamination of the blue bins. Unfortunately, the group members were unable to proceed with their project when the Town Councils they had approached did not get back to their requests on time. In the end, they had to merge with another group with slightly similar interests. Their experience was echoed by the feedback from some participants:

Inform available resources, claimable items, some contact points before our projects. Four full days and project deliverables are intensive. (Male, 35-39 years old, recycles around once a week)

Before the start of the workgroup, request possible stakeholders, especially Town Councils to provide expedition for the projects. A quick turnaround is required for quality deliverables by the citizens at the end of the sessions.... Outline available financial and non-financial resources after the ideation phase. (Male, 25-29 years old, recycles around once a month)

Based on the expected deliverables, in this case, prototypes of solutions to be developed by citizens, the agency leading the effort requires sufficient lead time for the identification and securing of the necessary resources. Some resources to be secured in advance include seed funding and prior collaboration agreements with potential partners, such as Town Councils and Residents' Committees. Support from certain Town Councils and Community Development Councils made a positive difference for some of the groups, such as the groups proposing e-platforms to promote recycling correctly and to nurture recycling influencers in the community.

For the #RecycleRight CW, the team from MEWR did what they could to help connect participants with different types of resources they needed during the four weeks when the groups had to pilot-test their ideas (see [pages 37 and 38](#) for some examples of the assistance provided by MEWR). Each staff was assigned to different groups to provide assistance and coordinate requests (e.g., for funding and to be connected to myriad agencies and grassroots organisations). This was done on top of the regular workload the team had. Clearly, agencies rolling out workgroups of such scale need additional resources and support. A more ideal arrangement would be a team dedicated to the running of the process. This is because, as demonstrated by the #RecycleRight CW, co-creating solutions with citizens is not just about facilitating engagement among citizens, but also working with citizens closely to bring ideas to fruition.

In conclusion, the #RecycleRight CW was a remarkable showcase of citizens' capability to not just co-create solutions but co-implement them. More importantly, the participants gained intimate insights into what policymaking entails as they worked the ground during the four weeks when they tested their ideas. Through encountering resistance and rejections when interacting with residents and agencies, the participants realised what it took to build consensus with one another, but also with citizens who have different priorities and needs. The challenges the participants faced reflect a fraction of the realities faced by policymakers when rolling out initiatives, an insight they would not have gained and benefited from without such a workgroup.