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# Trials of Improved Practices Manual

## An Introduction to Reality Testing for Sustainable Waste Behaviors



CLEAN **CITIES**, BLUE **OCEAN**

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## Acronyms and Abbreviations

|       |  |
|-------|--|
| 3R    | Reuse, Reduce, and Recycle                         |
| CCBO  | [USAID] Clean Cities, Blue Ocean                   |
| FGDs  | Focus Group Discussions                            |
| SBC   | Social Behavior Change                             |
| SWM   | Solid Waste Management                             |
| TIPs  | Trials of Improved Practices                       |
| USAID | United States Agency for International Development |

## How to Use this Manual

*This manual is intended to introduce Trials of Improved Practices (TIPs) to organizations, including the U.S. Agency for International Development (USAID) Clean Cities, Blue Ocean (CCBO) program's grantee organizations and local governments working in the reduce, reuse, recycle (3R) and solid waste management (SWM) sectors. The manual provides an overview of TIPs, its uses and benefits, and step-by-step guidance on how it can be conducted. The manual shares examples from CCBO's experiences and provides guidance on how organizations may conduct and employ TIPs results to develop social and behavior change (SBC) strategies, test new technologies or behaviors, and/or help local governments to develop related policy and refine SWM systems to better meet the population's needs. CCBO hopes that this manual will help local organizations, as well as governments, align SWM policy with what sustainable waste management behaviors residents and businesses of their city are able to practice currently, tailor the SWM system to the people for whom it is intended, and learn what it will take to enable community members and businesses to practice the behaviors that emerging SWM systems and plans will require—as well as refine those plans to meet the needs of the population.*

*TIPs is the final step in formative research and should never be the sole method used for formative research. As explained throughout this manual, TIPs should be preceded by brief qualitative formative research that informs the TIPs, as explained through this manual.*

*This manual is not a training curriculum. CCBO has developed TIPs training curricula for several grantees and has learned from this that the TIPs curriculum must be tailored to each grantee's capacity, needs, country, and the SWM context of the city. TIPs that grantees have conducted since receiving training are featured as examples throughout this manual.*

*Organizations seeking additional information and support in conducting TIPs may contact the Clean Cities, Blue Ocean program at [info@cleancitiesblueocean.org](mailto:info@cleancitiesblueocean.org). To learn more about the program, please visit [urbanlinks.org/ccbo](https://urbanlinks.org/ccbo).*

# I. Introduction

Clean Cities, Blue Ocean (CCBO) is the U.S. Agency for International Development’s (USAID) global flagship program to address ocean plastic pollution under the Save our Seas Initiative. The program works at the global level and in specific, rapidly urbanizing focal countries in Asia, the Pacific Islands, Latin America, and the Caribbean, to address ocean plastics directly at their source.

The program’s work supports USAID’s Five Building Blocks for Reduced Ocean Plastic Pollution:



1. Data-driven policies for circularity



2. Effective solid waste services and investment



3. Green jobs and local innovations



4. Sustained behavior change to reduce single-use plastics



5. An inclusive, just, and equitable system

As part of its approach and its focus on promoting social and behavior change (SBC) for more sustainable practices, the program employs Trials of Improved Practices (TIPs)—a brief formative research approach that aims to help SBC programmers and policy makers understand which behaviors are feasible for key participant groups to adopt and identify what resources can further support their success.<sup>1</sup>

This manual provides an overview of TIPs and how organizations can adapt this process for their own waste and recycling initiatives.

**TIPs is a very brief formative research approach.** It takes the detailed results of brief qualitative research that precedes it, derives behaviors that are possibly feasible for members of the key participant groups to do, and asks members of these groups to test the behaviors. The goal of TIPs is to learn which solid waste management and 3R (reduce, reuse, recycle) behaviors a population can and is willing to do or is unable and/or unwilling to do.

**In TIPs, participants are asked to try out new or modified SWM/3R behaviors in their daily lives.** Researchers conduct three visits to participating households to negotiate which behaviors they will try and to guide and monitor their progress. The results may be used to design an SBC strategy, provide input to policy design, or contribute to SWM system planning or design.

<sup>1</sup> Formative research is usually brief research—which can be qualitative, quantitative, or a combination of methods—that is conducted to inform development of a project, program, activity, or plan. Quantitative research collects numerical data that can be analyzed using statistics. In development, quantitative methodologies often rely on questions with fixed-choice answers; researchers cannot change or add questions. Qualitative methods collect data that may be analyzed—by theme or content, for example—but not usually statistically. Qualitative methods allow for those being asked questions to provide their own answers; the researcher may begin with a list of questions but is free to add other questions to explore the interviewee’s answers.

## 1.1 Adapting SWM Systems to Fit the People and the People to SWM Systems

An increasing number of countries and municipalities are building improved SWM systems that include routine collection from homes, businesses, and sanitary landfills for safe waste disposal. Segregating plastic and other waste, including organic matter, and keeping these in separate streams apart from the residual waste that is disposed of in landfills can significantly extend the life of landfills and lower greenhouse gas (GHG) emissions. In addition, governments, the private sector, and others have taken note that plastic and some other types of waste have value. Therefore, some municipalities have pushed to ask businesses and the public to segregate these materials for collection and recycling.

Improved SWM systems demand the development of new, or the revision of existing, SWM policies and vice versa. These changes usually also necessitate that businesses and residents change their accustomed practices. To be successful, both policy development and intentional behavior change require evidence about what behaviors are feasible for businesses and various segments of the citizenry to do. What if new policies are impractical and unenforceable because businesses or residents are not able to change their behavior or the policies are logistically or economically impossible to enforce, e.g., banning single use plastics without introducing replacement products?

It is crucial to understand during policy and SWM system development what behaviors residents and businesses are able and likely willing to do so that policies can be based on current realities with allowances for possible future changes in the situation. It is also key to have a sense of how people and businesses can be assisted to change their behavior when absolutely necessary, what supports they will need, what obstacles and current supports for practices exist, how best to address these, and how best to promote the new behaviors, when needed.

How can program and policy developers find this out and what approaches can they use to do it?

## 1.2 A Solution: Trials of Improved Practices

Trials of Improved Practices provides the information to help resolve these issues. TIPs was created primarily to help SBC programmers and policy makers to understand and predict with some confidence which behaviors would and would not be feasible for people to practice under current circumstances and why, as well as what support may be needed to help people to practice behaviors that are less environmentally harmful.

The approach was originally developed by The Manoff Group, a member of the CCBO implementation consortium. The Manoff Group has over 50 years of experience introducing new methods for qualitative research, communication, media planning, materials development, counseling, and knowledge management. The Manoff Group developed TIPs in Indonesia to help decide which nutritionally sound infant and young child feeding practices were feasible to ask mothers/caretakers of young children to do. Programs that employ TIPs and act on the results are generally successful in changing behavior.

## TIPs in the Solid Waste Management Sector –

The TIPs approach is extraordinarily well suited to answer behavioral questions on SWM and 3Rs. Both technology and the behavior needed to use the technology, as well as any other behaviors needed to support SWM systems, and even prototypes of the systems themselves, may be tested through TIPs.

Examples from Clean Cities, Blue Ocean’s grantees and their activities include:

- In the Maldives, Soneva Namoonaa employed TIPs to learn whether a four (or more) bag separation system is feasible for residents of three islands in an atoll far from the capital.
- In the Dominican Republic, Centro para la Conservación y Eco-Desarrollo de la Bahía de Samaná tested various segregation behaviors and disposal of organic materials and household waste, as well as trialing a household collection system for recyclable waste.
- In the Philippines, Catholic Relief Services and Caritas conducted TIPs in poor neighborhoods in Manila where the residents have little indoor or outdoor space. Many of their TIPs participants agreed to wash and cut up plastics into small pieces to exchange for cash or for dried milk and other products through a company's (e.g., Alaska milk) recycling program. Some participants found that children readily participated in washing and cutting up plastic and that it was like a game. Parents not only appreciated their children's contribution but saw an added benefit to keeping their children at home and out of trouble.

Knowledge gained from these TIPs was made available to contribute to the development of SBC strategies, as well as government policy.

### Key Features of TIPs

1. A consultative method that asks a sample of people in the population to test out a few behaviors in their daily lives, for a short period of time, conventionally 15 people per variable (e.g., people who have regular waste collection; people who do not).
2. Include a process of negotiation, in which the researcher and participant negotiate which behaviors the participant will try.
3. An iterative method: there are usually at least three TIPs visits with each participant, household, or business that are spread out over enough time to enable the participant/s to try out the behavior(s), given the local SWM system.\*

*\*It does not make sense for people to try segregating plastics or other waste if that separation is not maintained throughout SWM handling and disposal. It may be necessary to create and pilot a collection, aggregation, and marketing system for the duration of the TIPs in order to truly test the behaviors. The literature on 3Rs from many countries strongly suggests that people will not continue segregating waste if they know that it will not remain separated and will all go to the same place, e.g., the town dump.*



## 1.3 What is Behavior?

The qualitative research that precedes TIPs encompasses much more than behavior.<sup>2</sup> However, TIPs focuses on behavior, so it is important for anyone wishing to understand TIPs to understand what is meant by “behavior.”

A **behavior** is an action that people *do*, like eating, walking, or disposing of trash. Behavior change is the process that a person or group undergoes either by adopting a new behavior that replaces the old one or revising the way the person or group performs an accustomed (current) behavior. An illustrative example of new behaviors is when a person stops disposing of trash in the canal or waterways (*first behavior*) and starts putting it in a garbage container (*second behavior*) to be given to the garbage collector (*third behavior*). An example of revising a behavior is when a household separates out organic waste and dumps it in the ocean, then modifies the behavior to stop throwing organic waste in the ocean and instead sets it aside and engages in the behaviors that are part of making compost. This happened on some islands in the Maldives as a result of a World Bank project.

When promoting behavior change, it is crucial to be very specific and to break down behaviors into their component parts or **sub-behaviors**. TIPs seeks to understand exactly what people can and are willing to do and what is difficult for people to do. For example, if a researcher only suggested that the TIPs participant separate out recyclable plastics from the rest of the garbage and several people in the sample said it was too hard to do, it would be more difficult to find out what exactly was too hard to do. It could be that it was too difficult to tell the different kinds of plastics apart or to distinguish plastic from other materials. In this case, the researcher may be able to help the participants perform the behavior by explaining and showing them pictures of materials that can be recycled and establishing a text-in line to answer questions as they arise. Alternatively, there might be no place in the home or in front of the home to put different containers for garbage and for recyclables. A possible intervention would be to help TIPs participants to figure out ways of storing different kinds of waste in a space-saving manner or even to ensure that appropriate

### TIPs can reveal behavioral practices that do not fit culturally shared beliefs

In many communities around the world, people say that women are the “household solid waste managers.” However, TIPs illuminates details of behavior that may be far more nuanced.

TIPs conducted by a CCBO grantee in an outer atoll of the Maldives showed that women disposed of most waste, unless it was heavy or yard waste. In those cases, it was the responsibility of men and boys. Furthermore, it was the responsibility of every household member (who was old enough to understand) to deposit his or her own trash into the household waste receptacles. From this research, it is evident that many household members are responsible for household waste management.

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<sup>2</sup> It is important to note that both the qualitative research that precedes TIPs and upon which TIPs is based, as well as TIPs are both part of the formative research leading to program, policy, activity, or strategy development. This document uses qualitative research and qualitative formative research as synonymous.

technology is in place to enable vertical storing of trash and recyclables.

In SWM and the 3Rs, behaviors are often linked. Often the TIPs participant will be asked to try out what are actually multiple behaviors in order to accomplish one 3R objective. In the example of composting, the household members who agree to compost must actually try multiple new behaviors:

1. Recognize organic waste and distinguish it from other waste;
2. Set aside organic waste;
3. Decide where the compost heap will be;
4. Consistently dump the organic waste in the specified outdoor location;
5. Mix in dry and wet organic waste;
6. Get or use the appropriate and easily usable tool to turn over the compost heap; and
7. Turn over the organic waste periodically (e.g., once a week).

All the behaviors form necessary parts of the “composting” activity but are discrete behaviors. A glitch in being able to perform any of the behaviors will not result in high quality, or possibly any compost, and may cause unpleasant consequences such as odors or insects.

## 1.4 The Benefits of Conducting TIPs

TIPs tests alternative behaviors to achieve a goal for social good. TIPs is only appropriate when there are alternative behaviors that will accomplish the same goal. TIPs may be used in the SWM context to support:

- **Social and behavior change (SBC) strategy development:** TIPs can help to inform SBC strategies by identifying the factors that enable or impede repetitive long-term behaviors, how likely various population segments are to be able to perform the various behaviors, and how to promote and support the behaviors. For example, the behaviors required to successfully reduce, reuse, and recycle must be repeated over the course of a lifetime and often require constant reinforcement. Waste generators may have frequent questions about whether particular plastic items may be recycled. For issues that require frequent and repeated behaviors and where the behaviors that are required may change, campaigns to “raise awareness” are woefully insufficient. As we have seen during the pandemic, awareness raising campaigns may be effective in spurring people to take action for rare behaviors, e.g., getting one or a few doses of a vaccine. These may be an early step in a phased SBC strategy, but they are virtually never the endpoint.
- **Planning solid waste system improvements:** Local SWM systems are part of larger systems, including global systems. There are many ways to construct elements of that system. TIPs can help inform these designs and developments. For example, a city may want to determine if their newly planned material recovery facility (MRF) should be staffed and built to sort and wash recyclables (e.g., metals, plastics, glass) or should the city do something else? Each of these alternatives requires different behaviors from city residents.
- **Policy development:** TIPs can ensure that policies are geared to what the people who will be affected by the policy are likely to be able and willing to do. For example, to effectively implement a policy for waste segregation policy makers need to understand what households are able to do about separating waste to avoid putting into effect requirements that may be unrealistic. Where water is scarce, a policy to require households to separate and wash recyclables will be difficult to implement;

similarly, a policy to separate waste into four types will be difficult to implement where there is no room inside or outside dwellings to fit four containers. SWM systems are complex and linked to markets, aggregation, and available space in materials recovery facilities—to name a few factors. This means that there are many alternatives in constructing or improving SWM systems and each alternative may require different types of behaviors from households and businesses.

## TIPs Reveals Unfeasible Behaviors

In CCBO's engagement site of Samaná Province, Dominican Republic, local plumbing systems are unable to handle toilet paper and personal products. Qualitative research showed that residents burned the contents of their bathroom waste containers because it was believed to be more hygienic and discreet than disposing of this waste with the rest of the residual waste. Bags of waste left for collection in front of houses or on street corners were prone to be torn open by dogs and the contents spilled in the street. The idea of one's bathroom waste being exposed in this way was intolerably embarrassing and unhygienic. Further, at the time of the research, the province's solid waste was being disposed of in open dumps, where waste pickers combed through the trash to look for valuable waste.

Without initial qualitative research that revealed this information, TIPs would be very difficult to do; the researchers would not have been able to identify the behaviors people were doing that were harmful to environment and would not have understood the logic behind the behavior. Since there were currently no alternative behaviors that addressed the reasons behind people burning their bathroom waste, the qualitative research also explained why most TIPs participants continued this practice. This suggests that the solution would have to be technological rather than behavioral.

## 2. Steps to Conduct Trials of Improved Practices

TIPs is a very brief formative research approach that is based on the results of preceding qualitative formative research that seeks to understand people and their relationship to waste. SWM options can vary greatly, not only by country but also by city. Consequently, unless detailed data are available on what people do regarding SWM and the 3Rs and why they do it in a locality, qualitative formative research is imperative before undertaking TIPs. The findings will enable the programmer to understand the situation, develop the TIPs menu (even for each city), and the TIPs training. The five steps needed to conduct a TIPs (*below*) are covered in this section.

The TIPs method is broken down into the following components:

**Before the TIPs method**, select a qualitative research sample and conduct qualitative research to inform the TIPs process.



### Select TIPs Sample

Select a relatively small TIPs sample that is representative of the group of interest, e.g., households or businesses; usually 15 per social or solid waste management variable.



### Develop TIPs Menu

Based on qualitative research results, identify potentially feasible behaviors that will support a more sustainable solid waste management system or reduce environmental impacts.



### Conduct Multiple Visits to TIPs Participants

- Visit TIPs participants first to gather demographic and waste situation information, then to negotiate behaviors they will test, and finally to assess behavioral feasibility.
- Analyze results after each visit.



### Conduct End Analysis

- Analyze how many participants could or could not do the behavior they had agreed to try and whether they changed that particular behavior.
- Recommend feasible behaviors to support/improve solid waste management and/or develop a social and behavior change strategy.

**After the TIPs method**, provide TIPs and qualitative research results for solid waste management policy development or refinement.

## 2.1 Before Conducting TIPs: Qualitative Research

Qualitative research should be conducted first to identify how people conceptualize and categorize waste; how it is generated and by whom; and how, why, and by whom various wastes are handled and disposed of. Qualitative research should also be carried out with informal waste collectors (IWCs), with tailored questions depending upon the purpose of the research (e.g., to examine IWCs relation to aggregators, the local government, and each other).

**TIPs** builds upon qualitative research findings to focus on behaviors that are likely to be feasible for waste producers and disposers to adopt.

TIPs is usually conducted as one of the final formative research steps after qualitative research has been carried out and before developing an SBC strategy. Focus group discussions (FGDs) may be conducted after TIPs is completed as an additional verification (triangulation) method or to explore reasons for some of the findings, especially comments from TIPs participants and their suggestions for how to promote the practice(s). However, follow up FGDs are optional and are only conducted if clarification is needed. If FGDs are not conducted, TIPs may be the last step in formative research.

The qualitative research determines the TIPs sample composition. For example, the research results determine whether and what proportion of the sample are men, women, children; the most appropriate age groups; and whether whole households must be included in the behavioral negotiation. The qualitative research results will also inform the locations of residences, social classes, and ethnic groups and/or which businesses should be included (as relevant).

This manual assumes that formative research to inform the TIPs will already have been conducted and therefore does not provide instructions for conducting this phase of research.

### The Role of Qualitative Research

Qualitative formative research should be constructed to provide information on how people live their lives in relation to waste, what they think about waste and how they categorize it, who handles the waste within the home or business. *Do children throw their waste on the floor and expect an older sibling or adult to pick it up? At what ages are children able to throw their waste into the waste receptacle—if they do this? Who teaches little children what to do with waste? How do men and women in the household dispose of waste? If waste is collected, who usually takes the receptacles to the collectors and why?*

For example, in Samaná, women usually take the trash to the collection truck, not because it is their responsibility based on gender, but because they are usually home when the truck comes. When men are home when the truck comes, they take the trash out.

The qualitative research should also provide information on how people talk about waste—in as much detail as possible, so that the TIPs menu will be easily understood by TIPs participants.

## 2.2 Selecting a TIPs Sample

To establish a TIPs sample, small groups of households, individuals, or businesses, often 15 per variable per city (e.g., have regular waste collection, do not have regular waste collection), are selected from the population or community that is going to be asked to participate in a project or activity that is about to be implemented. Examples of other variables might include:

- Live near waterway/do not live near waterway
- Have formal waste collection/have no formal waste collection
- Different ages and genders of informal waste collectors, *or*
- Food sellers that cater to tourists/food sellers that mostly serve local residents.

**TIPs** samples are small groups of households, individuals, or businesses, often 15 per variable, selected from the population or community that will be asked to participate in a project or activity.

The selected individuals, called **TIPs participants**, will be asked by the TIPs researcher to implement one or a few actions (behaviors) that are likely to reduce the risk of contributing to plastic and other waste entering the ocean. These actions may be suggested by the TIPs participant or recommended from a menu of possible feasible behaviors that the research team has developed based on the results of their earlier qualitative research.

In 3R/SWM TIPs, the negotiation may involve more than one person because often SWM involves the entire household, as almost everyone in the household generates waste and disposes of it, usually in a household waste container.



A CCBO grantee conducts a TIPs training for their staff in the Maldives. *Photo: Soneva Namoon for Clean Cities, Blue Ocean*

## 2.3 Developing a TIPs Menu

A TIPs menu is a list of behaviors that people in the group you are working with can likely do that will help to prevent plastics from ending up in the ocean and divert organic waste from landfills—or will help achieve other SWM objectives, such as improving the health and safety of sector workers by adopting personal protective equipment.

The menu choices are based on the earlier qualitative formative research results and what may be required from the developing or established SWM system. Sometimes the TIPs menu is divided into bundles of behaviors because, as discussed in Section 1.3, it is seldom useful in SWM and 3Rs to initiate *only one* behavior.

**Menu choices** always depend upon the alternatives that residents have in their municipality or neighborhood.

The menu is usually developed before the first TIPs visit but may be modified if the first visits provide additional key information.

While there must be at least two alternative behaviors for TIPs, usually there are more than that for SWM and behaviors are broken down into their component sub-behaviors. To illustrate, separating household waste into dry and wet requires six separate sub-behaviors. The TIPs participant must:

1. Obtain or dedicate two containers/receptacles;
2. Store the containers in the house or in a closed container outside (to prevent the contents from getting into the environment);
3. Discuss separating dry and wet with all household members who dispose of trash in the house;
4. Decide whether a piece of waste for disposal is in the dry or wet category;
5. Put it in the correct receptacle; and
6. Ensure that everyone in the household does this consistently.

That does not even address how to ultimately dispose of the dry and wet. The alternatives for disposing of the organic waste may be to:

1. Put in pile to create compost for garden and follow set of composting behaviors;
2. Feed to your animals or neighbors' animals; or
3. Put it outside during trash collection day/s for pickup.

TIPs menus must be constructed to reflect local practices, needs, and social context as SWM practices are very localized. A TIPs menu may contain all the sub-behaviors associated with performing a behavior or only the most crucial or possibly more difficult sub-behaviors.

## 2.4 Conducting TIPs Visits

TIPs is an iterative technique. Most approaches to formative research for program development include only one interview per research participant or participating household, while TIPs usually employs three interviews per research participant or household. Interviews are carried out sequentially, over a short period of time—generally, over a period of two to three weeks. Since household waste handling involves the entire household, there may be more than one household member participating in each interview.

### Alternative Behaviors with the Same Goal

In Samaná Province, Dominican Republic, many ethnic Dominicans native to Samaná keep organic matter out of the residual waste stream by saving table scraps and fruit and vegetable peelings in a bucket for pig food collectors, who take the scraps to pig owners to feed their pigs.

An alternative behavior employed by many people in the countryside, that will also keep organic matter out of the residual waste stream, is to turn yard waste and table scraps and peelings into compost.

TIPs for SWM are almost always very brief, although the actual length will depend on the local collection and disposal system to enable participants enough time to perform the behaviors to be tested with the current SWM system. For example, if collection is only once every week or two, then the TIPs should last two-three weeks. If, on the other hand, collection is twice a week, then the TIPs may last one week. CCBO's experience in the Dominican Republic suggests that two or even three weeks may be optimal to allow enough time for participants to try behaviors that rely on accumulation of sufficient waste (e.g., glass and metal).

**TIPs consists of three visits to the participants.** In the first visit, researchers learn about the household or business, as well as observe (as conditions allow) household or business waste management to learn in great detail how the participant generates and handles waste. When health conditions permit, CCBO recommends direct observation during a period of maximum waste production (e.g., during meal preparation and after the meal for a household).

During the second TIPs visit, the researcher discusses with the participant/s the problem of waste in the environment and what the researcher has observed that the participant does that would allow plastic and other waste to enter the environment. The researcher asks the participant/s what behaviors they would like to try during the TIPs to address these problematic areas. It is rare that participants can think of any behaviors on their own, so the TIPs researcher selects behaviors for the participant to try from a menu of behavioral choices. This menu is developed on the basis of what has been learned from the formative research that usually precedes TIPs and also from what is learned during the first TIPs visit. The particular behaviors that the TIPs researcher suggests to that household or business are based on what s/he has learned from the previous interview about that household's or business's SWM practices. The participant may not want to do those behaviors, so the researcher negotiates with the participant to find a set of sustainable behaviors that are agreeable to the participant and that produce environmental benefits. For example, composting would be best for the environment, but if the participant will not do that after the researcher explains its value, the researcher may offer collecting the yard waste and putting it in a sack for the waste collectors to pick up. If the participant proposes alternate behaviors not offered on the menu, the TIPs researchers

## TIPS visits

### First Visit

- Learn demographic information
- Obtain permission to participate in the TIPs
- Learn key information about SWM (e.g., whether regular trash collection, recyclable segregation and collection)
- Identify responsibilities for SWM activities, who handles waste

### Second Visit

- Learn participants' waste handling and disposal behavior in great detail
- Discuss with participants the problem of plastic and other waste in the environment
- Ask participants to suggest behaviors they could try during the TIPs that would be less risky for the environment
- Propose behaviors from the TIPs menu for the participant to try
- Negotiate which behaviors participant will try and reach agreement
- Provide reminder material

### Third Visit

- See how the participants did
- Learn whether they discussed the behavior with others and what was said, intend to continue the behavior and if they would recommend it to others and if so, how.



should be knowledgeable enough about SWM to determine whether behaviors proposed by the participant will actually help keep plastic and other waste out of the environment or at least will be less harmful to the environment than what the household or business is currently doing.

The third visit is to check in and see whether the participating household or business was able carry out the behaviors they committed to do, what helped them or got in the way of their trials, and whether participants changed the behaviors they had committed to do and if so, how and why. Finally, the researcher asks whether the TIPs participant would like to continue the behaviors they had committed to do, and whether they had or would recommend the behaviors to others and if so, what words, phrases they used and in what contexts.

## 2.5 Using Reminder Materials

TIPs participants may need additional information or supplementary materials to remind them how to practice selected behaviors. For example, participating households should not be expected to be able to distinguish recyclable from non-recyclable plastics after being told how to do so in the TIPs visit—although they may be able to tell these apart if they already sell their recyclables to a waste collector. For this reason, reminder materials are commonly developed in preparation for TIPs. If you already have or can identify existing materials (e.g., an app, laminated sheet, or photocopied materials) that show which types of waste can be recycled and which cannot, it is important to give this to the TIPs participants.

Remember that what can be recycled depends on local recycling markets and the SWM system and that these may change depending on national and world markets and may vary by city as well. If possible, select and provide the best existing materials. If materials do not already exist, organizations are encouraged to create their own materials, following standard international information, education, and communication procedures.

An example of a reminder material from the Philippines Department of Environment and Natural Resources is shown in Annex I.

# 3. Analyzing Results and Developing Recommendations

## 3.1 TIPs Analysis

TIPs data collection and analysis are both relatively quick and easy. TIPs was designed so that non-governmental organizations or local government staff can both conduct and analyze TIPs, albeit with training and mentoring for the first TIPs.

TIPs generates both quantitative and qualitative data. The quantitative data (e.g., the number of people who did or did not do a particular behavior). are entered into tables and counted. The qualitative data consist of spontaneous comments to the TIPs researcher that can often be quite telling, e.g., “I convinced my neighbor to segregate her waste and put it in my container for pick up.” The qualitative data also consist of answers to the very few open-ended questions posed in the third TIPs visit, e.g., “If you were going to tell a neighbor about the behaviors you tried during the past two weeks, what would you say?” The qualitative data may also be entered into the table, where they can shed light on the quantitative data, but they are analyzed thematically and for phrases and words used rather than counted.

Sample Portion of a TIPs analysis table

| Behavior           | Did | Did Not Do | Changed | How Changed  | Intend to Continue | Recommend |
|--------------------|-----|------------|---------|--|--------------------|-----------|
| Plastic separation | 17  | 6          | 6       | <ul style="list-style-type: none"> <li>• Used a smaller sack because of fear of being stolen.</li> <li>• Only separated water bottles.</li> <li>• Collected plastics from neighbor.</li> </ul> | 17                 | 18        |
| Not burn trash     | 5   | 3          | 1       | Burned less trash  | 3                  | 5         |

### Qualitative Information Derived from TIPs

In the TIPs conducted by CCBO grantees, a common theme emerged across several countries located on different continents: segregation of waste as a good way to organize the home. In the Maldives, some TIPs participants in one of the islands experienced segregating waste as a way to keep the house neat. Soneva Namoon, a CCBO grantee conducting TIPs found that the majority of the [TIPs] households found the separation easy to do and several mentioned that this method helped keep the house more organized and cleaner.

*“I live alone, and I found this method of segregation very useful for myself to keep waste organized.”*

TIPs participants in another island also shared this TIPs participant’s perspective.

*“[This is a] very helpful method to keep the house clean and neat.”*

Some Dominican TIPs participants, many thousands of miles away, had the same experience with waste segregation during TIPs,

*“For me, this experience was like organizing the drawers and/or closet in my room; I feel organized and I feel important to do something for the environment.”*

Some Indonesian TIPs participants also remarked that segregating waste helped keep their homes neater.

Another theme that emerged among several of the TIPs participants was recruiting neighbors to segregate their waste, although this was neither a behavior in the menu nor had it been suggested by any participants.

## 3.2 Developing Recommendations from TIPs

Good formative SBC research, such as TIPs, can obtain results with far reaching implications. TIPs results may be used not only to develop an SBC strategy for a program, but also to help in designing a new SWM system or new policies and regulations. In Samaná Province, Dominican Republic, TIPs was conducted to develop the strategy for a future SBC program, and it has also proven extremely useful in informing the ongoing development of a new SWM system, including the approach to develop a new sanitary landfill and materials recovery facility (MRF). There are many options for how the MRF and transfer stations can be constructed, and TIPs has provided useful information for the design.

Recommendations from TIPs must be based strictly on the TIPs results. However, results should be put into the context derived from the earlier qualitative formative research and local experience. For example, in TIPs conducted in CCBO's Manila engagement site, about 70% of participants agreed to segregate plastic waste. However, relatively few were actually able to do it. They reported lack of space in their homes for an extra container, cited lack of time, or preferred to leave segregation to informal waste collectors or neighborhood youth who sell recyclables. Interestingly, those who were able to segregate waste successfully said that several family members joined in the tasks to segregate waste. One recommendation might be to try to co-create solutions with TIPs participants—in this case, a vertical waste container that would take up the same amount of floor space as a single waste container but would have compartments to allow for waste segregation or to encourage segregation of waste as a whole household activity and to find ways to make it fun.



Women in Samaná Province successfully segregated plastic waste during the TIPs.

*Photo: Center for the Conservation and Eco-Development of Samaná Bay and its Surroundings (CEBSE) for Clean Cities, Blue Ocean*

In the Dominican Republic, CCBO's grantee knew from initial qualitative research that, contrary to what decision-makers believed, the population was already accustomed to segregate some of their waste, e.g., itinerant metal or glass recyclers stopped by houses occasionally and unpredictably to pick up glass and/or metal, so many households separated glass and metal. Dominican women native to that province also separated kitchen waste for pig food collectors to pick up, and everyone kept bathroom waste separate to burn with yard waste. The grantee also found that no one segregated plastic waste because the current SWM system did not have a way of handling it separately. Furthermore, they knew that previous projects had instructed households to separate out plastic waste, but people could see that it was all collected in the same truck and dumped together with their other waste in the landfill. The qualitative research had also suggested that people generally were quite unhappy about all the waste in their beautiful tropical environment and beaches. By the qualitative statements through TIPs, the grantee learned that this made people feel unhappy and frustrated about their environment and also helpless because they did not see what they could do to help. In order to test waste segregation, including of plastics, the grantee had to establish a recycling collection and marketing system for the duration of the trial. The TIPs showed that the vast majority of people were not only able to separate plastic waste, but once they were informed that the plastic would indeed be collected separately and recycled, they were also delighted to segregate and store their plastics separately for collection. It was a surprise that many people experienced segregation of waste as empowering, especially the lower income residents who had little control over their lives or voice in their municipalities. One low-income woman explained, *"It gave me a feeling like I was doing something for the planet, like I'm important to my community, at the same time a sense of pride and order."* This is a theme that future SBC programs can employ and that can also be used with government officials to advocate for a recycling system.

The recommendation for segregation of plastic waste has implications for how a collection system and provincial MRF would be set up: for example, it's best not to have a dry/wet segregation system in Samaná because people are easily able to and very much want to segregate recyclable plastic waste. Additional segregation of plastics should happen at the MRF, but people need to feel that they are contributing to their environment. SBC would help to reinforce what is segregated and to remind all family members to continue to do this.

TIPs provides detailed, very localized information from future program participants on what they are able and willing to do to support the 3Rs and a SWM system. Although conducted primarily for SBC, TIPs can result in data and recommendations for waste infrastructure, policies, and programs as well as SBC strategies.

## Annex I. Example of Reminder Materials

### MAGTUON SANG EKSAKTO NGA PAG BAHIN-BAHIN SANG BASURA



| Category      | Percentage |
|---------------|------------|
| Residential   | 56.7%      |
| Commercial    | 27.1%      |
| Institutional | 12.1%      |
| Industrial    | 4.1%       |

May 9,000 na ka tonelada sang basura ang gakatipon kada adlaw sa Metro Manila. Ini nga mga basura naghalin sa mga residenysal, komersyal, institusyonal kag industriyal.




#### Mga Epekto sang Nagalapta kag Wala ma Bahin-bahin nga mga Basura:

- Ang methane gas sa mga dumpsites makahalit sa mga tawo nga naga istar malapit diri.
- Ang mga basura sa kadagatan nagahigko sang tubig kag nagahalit sa aton dunang manggad.
- Pagsupon sang mga kanal nga naga resulta sa pagbaha.
- Duga sang mga basura nagahigko kag kontaminar sang tubig nga nagaresulta sang makahalalit nga mga balatian pareho sang diarrhea, cholera, hepatitis kag typhoid.
- Nagaresulta sa pagdamo sang mga insekto kag mga kasapatan pareho sang mga lamok kag mga ilaga.

### REDUCE, REUSE, RECYCLE

Magbahinbahin sang aton basura. Ihaboy ang mga ini sa nagakaigo kag eksakto nga basurahan.

Laya' nga mga dahon, bukog sang isda, panit sang prutas kag iban pa.



Mga plastic nga suludlan, lata, karton kag daan nga dyaryo.



Daan kag nagamit na nga mga batteries, suludlan sang pinta kag guba nga mga appliances.



Disposable nga mga diaper, plastic sang dulce kag upos sang sigarilyo.





**MADUNUTON**



**PUEDE PA MAGAMIT**



**DELIKADO KAG KONTAMINADO**



**INDI NA MAPUSLAN**



**ENVIRONMENTAL MANAGEMENT BUREAU 6**  
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