EXCESS BAGGAGE

REDUCING PLASTIC BAG WASTE IN MAJOR CITIES OF CAMBODIA

BEHAVIOUR CHANGE COMMUNICATION (BCC) CAMPAIGN

DRAFT BCC STRATEGY

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Report Author:

17 TRIGGERS

17 Triggers is a Social Innovation Lab that works with organisations across a variety of sectors to innovate like tech startups through human-centred design (HCD), behavioural science and design thinking methods. To see more of their work, please visit **www.17triggers.com**.

For further information on the European Union, its activities in Cambodia and the SWITCH-Asia program, please visit

www.ec.europa.eu

www.eeas.europa.eu/delegations/cambodia

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For further information on the project and additional resources please visit **www.excessbaggage-cambodia.org**

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1 INTRODUCTION

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Background

The Earth Policy Institute estimates that three billion bags are consumed globally each day[1]. This equates to one trillion bags per year, with a significant portion being dumped into our oceans. The magnitude of the plastic bag waste problem is immense, but there is a growing recognition that every country needs to address this issue as part of an international effort to protect the environment. Good examples of plastic bag reduction programmes, no longer limited to Western countries, can be found in Rwanda, Uganda, Tanzania, China, India, Bangladesh and Bhutan. These programmes have tackled the problem through policies that include taxation, outright bans on the use of small, thin plastic bags, as well as behaviour change communication (BCC) to encourage consumers to bring their own bags when shopping.

Despite these efforts, Asia has been named the world's top ocean plastic polluter. Among the countries that contribute the most total plastic waste to the oceans, the majority are in Asia: China (1st), Indonesia (2nd), Philippines (3rd), Vietnam (4rth), Thailand (6th) and Malaysia (8th)[2]. Rapid economic growth and increased consumer demand for safe, disposable products, coupled with inadequate solid waste management systems, are cited as the key reasons for why these countries made the list.

Cambodia's growing economy, coupled with its limited capacity to manage plastic waste, produces outcomes similar to its Southeast Asian neighbours. It is not unreasonable to assume that Cambodia is following the same pattern of plastic waste creation, albeit at a smaller scale than Vietnam or Thailand.

1. Earth Policy Institute, 2014. http://www.earth-policy.org/press_room/C68/plastic_bags_fact_sheet

2. Jambeck, J.R., Geyer, R., Wilcox, C., Siegler, T.R., Perryman, M., Andrade, A. *et al.*. 2015. Plastic waste inputs from land into the ocean. *Science* 13 February (347) no. 6223:768-771

1 INTRODUCTION

Behaviour Change Communication Strategy

It is with this in mind that the European Union is supporting Fondazione ACRA to implement the project 'Reducing Plastic Bag Waste in Major Cities of Cambodia'. The project was designed with a three-pronged approach to tackling the problem, which includes:

1. Conducting a behaviour change communication (BCC) campaign that will help consumers in major Cambodian cities to adopt sustainable behaviours regarding the use and disposal of plastic bags;

2. Meeting the packaging needs of consumers and vendors in major Cambodian cities by providing eco-friendly alternatives to plastic bags that are viable, visible, accessible and affordable; and

3. Supporting the efforts of the Ministry of Environment to create an appropriate policy framework to minimize the impacts from plastic bag waste and support substitute packaging.

17 Triggers has been commissioned to lead the design of a BCC campaign to help consumers in three of Cambodia's largest cities (Phnom Penh, Siem Reap and Sihanoukville) to reduce their plastic bag use and improve bag disposal behaviours.

Process to develop BCC strategy

In Cambodia, there are already several regional and in-country programmes that address plastic bag waste; however, most of these programmes have focused on recycling, littering and clean-ups rather than reducing the consumption of plastic bags.

Given the dearth of data on plastic bag consumption in Cambodia, 17 Triggers embarked upon a series of activities to develop an evidence-based BCC strategy. They included the following:

- A **desk review** to explore lessons learned from global campaigns on plastic bags, efforts undertaken locally in Cambodia, and the identification of relevant policies, plans and existing programmes. The results include two Pinterest boards created to aggregate findings and experiences from campaigns around the world and log potential partners:

  http://bit.ly/1QhF2Z1
  http://bit.ly/1kM3wwq

- **Formative research**, including a quantitative and qualitative market research study with TNS, as well as independent research carried out by 17 Triggers. A variety of methods were employed including ethnographic observations, one-on-one interviews, focus group discussions, field immersion at markets and *chab houys*[3] and a survey of over 600 vendors and consumers. A full BCC Campaign Market Research Report[4] published by ACRA, provides more details on methods and findings for all three behaviours.

- **'Deep dive' analysis** and synthesis of findings was carried out from available research using several behaviour change frameworks. The primary behaviour change framework used for analysis is grounded in the 'Elephant Rider Path' methodology developed by Chip and Dan Heath in their book, *Switch*[5]. In addition, the SaniFOAM[6] (Focus, Opportunity, Ability, and Motivation) framework developed for the sanitation sector was also used to identify behavioural determinants – factors that can facilitate or hinder a behavior related to reducing the consumption of plastic bags.

- **Trigger Mapping** (a visualisation process coined by 17 Triggers) was used for data synthesis, bringing out key findings and identifying knowledge gaps. Trigger Mapping was also used to identify factors that can inhibit or facilitate change. Personas and consumer journeys were developed to better understand behaviours in specific 'ecosystems'. Two bag decision matrixes were also created to determine the factors that influence vendors and their plastic bag choices.

3. *Chab houy* is the Cambodian term for small stores that sell all sorts of goods (mostly pre-packaged) for daily consumption such as drinks, eggs, shampoo, cigarettes etc. Usually family-run and a physical extension of the house, *chab houys* come in all shapes and sizes.

4. Fondazione ACRA. 2015. *Behaviour Change Communication (BCC) Campaign Market Research Report.* Excess Baggae: Reducing Plastic Bag Waste in Major Cities of Cambodia. EU Switch-Asia. November.

5. Heath, C. and Heath, D. 2010. *Switch: How to Change Things When Change is Hard.* Random House, New York.

6. Devine, J. 2010. *Introducing SaniFOAM: A Framework to Analyze Sanitation Behaviors to Design Effective Sanitation Programs.* Water and Sanitation Program, the World Bank. October.

KEY INSIGHTS

MARKET RESEARCH

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2 KEY INSIGHTS

Market Research

Data on Plastic Bag Consumption

Until now, there existed very little data on plastic bag usage in Cambodia. The market research conducted for the 'Reducing Plastic Bag Waste in Major Cities in Cambodia' project is to our knowledge, the first attempt to establish rates of plastic bag use, reuse and disposal in Cambodia.

Although there is a need to address all three behaviours, this strategy will only focus on the reduction of plastic bag consumption and increased reuse as the desired behaviours to change. Findings from the market research highlight opportunities to improve these two behaviours though communication. In the case of proper disposal, structural interventions, (i.e. the provision of bins, more timely collection of rubbish etc.) are key obstacles to behavior change. These systemic challenges would need to be addressed in order for BCC activities to be effective.

Following completion of the market research, there are now answers to the following questions: 1) How many bags are urban Cambodians using and how are bags reused; 2) Where are plastic bags consumed; 3) What does a typical consumer look like; and 4) What will motivate them to change.

The following section provides answers to the above questions.

1. How many bags are urban Cambodians using and how are bags reused?

Findings from a survey among 600 vendors and consumers revealed that consumption of plastic bags in the three Cambodian cities is extremely high. Plastic bags are used for everything ranging from protecting clothes from dust and rain to holding liquids for drinking. The survey revealed the following plastic bag consumption patterns:

• A person living in these three cities will receive, on average, 2,158 bags per year, more than 40 bags a week.

• Over 50% of all plastic bags are acquired at markets, 'wet' markets in particular.

• Housewives, who are responsible for daily food preparation, receive 2,700 bags per year on average, more than any other consumer.

• Traditional eco-alternatives such as banana leaves and lotus leaves are no longer cheap or practical. Their use is limited to food products where there is a specific functional attribute such as taste.

Roughly half of consumers currently reuse their plastic bags at least once and 40% reuse their bags twice. Bags are predominantly reused for household rubbish bin liners. Women are motivated to reuse plastic bags to save money and may request vendors to give them an extra bag even when they only purchase one item. Reuse is highly dependent on the type of bag received during a transaction. Big, strong bags with handles that are clean after first use are the most likely to be reused. High quality, branded or 'pretty' bags are reused for storing goods, packing clothes when travelling or while shopping.

Plastic bags that are the least reused include: small, thin, coloured bags that are easy for vendors to use for sorting items and are cheaper to buy; and black bags used to hide embarrassing purchases such as sanitary napkins or small quantities of rice. Bags that become soiled from holding dirty vegetables, meat or cooked foods are never reused.

Vendors reuse bags in their own stores to sort and pack goods, but virtually all vendors (99%) provide new bags to consumers. While most vendors are aware that reuse could be a cost-saving strategy, they do not feel that providing used bags to consumers would reflect good customer service.

2. Where are plastic bags consumed?

While plastic bags can be consumed anywhere, the place where the largest amounts of bags are consumed is at the market. Markets in Cambodia offer a comprehensive array of items that include food products, household items, personal care products and fashion items (clothing, shoes, jewellery, etc.). The section of the market where the most plastic bags are consumed are where the perishable ingredients (vegetables, fruits, meats, fish) are sold, otherwise referred to as the wet section of the market.

As mentioned previously, most consumers obtain the majority of their bags from the wet market. An average of five bags are provided per visit and each housewife goes to the market about six days a week. This adds up to 27 plastic bags a week from the market alone, many of which are not reused. The high number of visits to the wet market to buy fresh food, coupled with a preference for keeping items separate and clean fuel the large quantities of plastic bags consumed.

Transport also determines the likelihood of a consumer bringing his/her own bag. Many consumers travel to markets by motorcycle. The inconvenience of having to carry a bag in a vehicle with little to no trunk space, as well as the fear of bag snatching, may deter people from bringing their own bags. Those that walk to the market or are dropped off seem to be more likely to bring a basket, however this acts mostly as a carrier bag to consolidate purchases and results in very little reduction of bags.

For vendors, the provision of a plastic bag helps define good customer service and vendors expressed discomfort with asking customers if they could put everything in one bag for fear of seeming stingy. Some vegetable vendors go through 2-3 kgs of plastic bags a day, which can quickly add up to $20 a week. Although vendors in the lifestyle section – where clothes, fashion accessories and electronics are sold – use less bags on average, they often opt for fancy, imported bags that cost up to $5 per kg to differentiate themselves from other stores.

3. What does a typical consumer look like?

The majority of people found in Cambodian markets are women. Seven out of ten vendors are women, particularly those selling fruit and vegetables, and most consumers are women. The personas below in Table 1 were developed to reflect the overwhelmingly female composition within markets.

Consumers and vendors are both considered to be plastic bag consumers

Table 1: Target Personas at the market

Wet market section	
Consumer: Sopheap, housewife, 38 years old I come to the market almost every day as I don't have a refrigerator at home. Each day I decide what to cook for my family, grab my basket by the door and walk over to the market. Sometimes I start with a particular cut of meat that I want, but mostly I go from stall to stall, buying what I need for the day. My meat is always packed in a plastic bag that I throw away as soon as I've taken the meat out at home. When I buy dry vegetables, even though I am carrying my basket, each vendor gives me at least one bag. I guess some hard vegetables could be packed together, but I like getting a lot of clean bags to use around the house. For leafy vegetables, I buy my kale and long beans loose and my morning glory bundled. Each vegetable is put into a different plastic bag with the largest bag holding all of the smaller ones. My basket helps me to consolidate all of my purchases and keep track of the smaller items as I am walking through the market and talking to people. It is also more comfortable to carry as I walk home without all of those plastic bags cutting into my hand. At home, I keep three of the six bags to use as a rubbish liner or to store things. Plastic bags always come in handy.	**Vendor: Veasna, vegetable seller, 50 years old** I usually prepare the right bag when I see what vegetables my consumer is selecting. Bigger items like cabbage or things that won't roll away like *kailan* I usually weigh straight on the scale. But with sparse or smaller things I usually put them in a bag to weigh. I know the lime lady puts everything in a basket first, but she only sells one thing. Dry items and hard items can go together, like carrots and eggplant, but potatoes will have to be separate or the soil will dirty everything else. Soft things need to stay separate, if I put herbs and leafy greens together they will go brown as there is too much water and I don't want things to get squashed. Consumers like their things separate, clean and not messy. The plastic bags also make it easier to put in the fridge. They will think I am stingy if I don't give them a bag. Even though it is an expense for me. I want people to think I value good customer service. I've had this stall since 1979. We used to use lotus leaves and strings that could degrade in the environment. But now everybody uses plastic bags because it is cheap and easy so our lotus lakes are now full of plastic. As a Cambodian, I want to reduce plastic bag use but it's easier said than done.
Lifestyle section	
Consumer: Bopha, student, 20 years old When I want something new to wear, or when there is a holiday coming up, I come to the market after classes to find good deals. I can afford to shop at the market now that I also have a part-time job in a coffee shop. Sometimes I come with friends, and when I do, we spend longer talking about what to buy and looking around, making it a social outing. Many of my friends have a Samsung smartphone and we use Line and Facebook to arrange when and where to meet. I choose clothes, shoes and accessories that I think make me look cool or trendy. I like it when a vendor gives me a nice bag that I can use later for storing things at home or for taking things around on my moto. I don't always want everyone to see what I bought, but I do want them to know that I have been shopping and bought something special.	**Vendor: Touch, 37 years old** I open my stall a little later than the food stalls. My dresses and handbags come from Thailand so they are the newest styles. I keep the display items near the edge of the stall free from dust and dripping rain with clear plastic bags so consumers can see what I have. To show my consumers that I am modern and have good quality items, I buy Thai bags to pack purchases, which are thicker and have designs I know they will like. Sometimes I can fit two things into one bag if they are small, but mostly people like to have a lot of my big bags to carry around and show off. Sometimes people even ask me to have an extra bag to take home and use. Even though it is an expense, if I say no they will shop somewhere else. I always bargain a little bit when I sell because people want a good price. I am always looking for new and interesting items to keep consumers happy, and new ways to keep them coming back.

4. What will motivate them to change?

The final, and perhaps most challenging, question is what will motivate consumers to change? Several tools were used guide the analysis of the research findings for reduction in consumption of plastic bags. This included, firstly, classifying the findings as behavioural determinants within the FOAM frameworks. Then the determinants were mapped to the 'Elephant Rider Path' framework. Using both frameworks resulted in both a broadbrush overview as well as a detailed picture of the barriers and motivations to change (seeTable 2). Details of the two behaviour change frameworks, including definitions of the behavioural determinants, are provided in Annex 1 and 2.

Table 2: Behavioural determinants to reduce consumption and increase reuse of plastic bags as per the Elephant Rider Path Framework

Rider	Elephant	Path
Knowledge: Consumers and vendors are aware that plastic bags are harmful to their health and the environment but lack specific knowledge of the negative impacts of plastic bags **Roles/decisions:** Both vendors and consumers feel that it is the other person's responsibility to ask/provide less bags **Skills/self-efficacy:** Consumers and vendors feel they are not able to back away from receiving/offering a plastic bag once it's been offered **Affordability:** Plastic bags are "free" since there is no extra cost to the consumer. While the total cost of buying plastic bags may be significant to small vendors, the cost of each bag/transaction is very low	**Attitudes/beliefs:** *Consumers* • "It's my right to get a bag." • "Plastic bags are a huge problem but there's nothing I can do about it." • "I should get more bags in case I need them later." *Vendors* • "Bags are a part of good customer service." • "Plastic bags are a huge problem but there's nothing I can do about it." **Values:** Cambodians value harmony so they will not push back on combining items for fear of ruining a pleasant interaction **Threat:** Consumers feel that plastic bags are associated with respiratory illnesses and cancer **Social drivers:** Cambodians value status, pride and being able to keep up with their neighbours **Willingness to pay:** Taking more bags or large bags to reduce the cost of buying rubbish bags (unintended consequence of reusing)	**Access:** Bags are readily available and easy to find for both consumers & vendors **Product attributes:** Bags keeps items clean, can be reused for sorting, storing and as waste bin liner **Social norms:** Every transaction begins with a plastic bag. A plastic bag is part of the cost of transaction for vendors and is a "right" to have from consumers

BCC STRATEGY

TARGET BEHAVIOURS, AUDIENCES AND CHANNELS

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3

BCC STRATEGY

Target behaviours and audiences

Overview

To help achieve the project objectives of reducing plastic bag waste in these three major cities, the BCC campaign will target the key behaviours of reducing plastic bag consumption and increasing the reuse of plastic bags. The ecosystem for the BCC interventions will be the market, with a particular focus on the wet section, as this is where the most plastic bags are consumed. Although the wet market is the primary focus of the campaign, consumers shopping in the lifestyles section of the market will also be targeted, for several reasons. Firstly, since the majority of activities will be carried out within the market, expanding communication activities to the entire market will increase the reach and potential impact of the campaign. Consumers who shop in the wet market may also shop in the lifestyles section. Secondly, including the lifestyles section may lend itself to the use of social media among younger or more affluent consumers. Vendors in the lifestyle section also have more time to engage with social media channels and new trends. Finally, a BCC campaign aimed at the lifestyles section of the market can lay the groundwork for consumer acceptance of an eco-alterative in the future.

Vendors and consumers in the wet and lifestyle sections are the key target audiences; however, all those present within the market will be exposed to the BCC campaign. A wider audience will also be exposed through mass media efforts.

Target behaviours and audiences

Consumers can reduce their consumption of plastic bags through a variety of behaviours: 1) they can bring their own bags (reduce and reuse); 2) they can opt to forego a bag and carry items in their hands or in their purse/backpack (reduce); or 3) they can combine all of their purchases into one bag provided by the vendor or add to an existing bag they received from another vendor (reduce).

After careful consideration of the challenges involved in adopting the above behaviours, option three – combining items – would almost certainly be the easiest behaviour for consumers and vendors to adopt. Option one is difficult to carry out on a consistent basis and may potentially reduce plastic bag usage by only one bag, unless a consumer brings multiple bags to reuse. Option two is only practical if the consumer is buying one or two dry purchases since wet items may soil their purse or backpack. The ideal situation is for consumers to avoid consuming any plastic bags at the market but this is neither practical nor realistic. The second best outcome is for consumers to reduce their average consumption of bags from five bags per visit to three bags per visit, for example.

It should also be noted that while the desired behaviour is combining purchased items, this can only be successfully carried out by the vendor if the consumer provides explicit agreement beforehand. In the absence of approval from the consumer, the vendor will carry on with the normal routine of using one bag per item. Also, while vendors are more likely to ask repeat customers if they would like to combine items, this is less likely with first-time customers who they are trying to impress. Likewise, vendors who push back or hesitate when a consumer asks them to add purchases to their existing bag, might act as a disincentive for consumers to continue their reduction efforts. Combining bags may pose more of a challenge to vegetable vendors because leafy, wet vegetables are perceived to need their own plastic bags.

The BCC campaign will therefore focus on the following outcomes, targeting the behaviours and audiences mentioned below:

• **Consumers in the wet markets** will agree with vendors to combine their purchases into fewer bags (ideally one bag);

• **Consumers in the lifestyles section of markets** will agree with vendors to combine their products into one bag (ideally one bag) or forego the bag altogether;

• **Vendors in all sections of the market** will offer to combine consumers' purchases into fewer bags (ideally one bag).

Campaign design

The mapping of the research findings revealed multiple factors that need to be addressed in this campaign, however, there are a few determinants that possess the most potential for behaviour change. These determinants include:

1. **Knowledge of the specific health risks** of using plastic bags and whether consumers feel that the risk of chemical transference from plastic bags or plastic in their food is enough of a threat to take less bags;

2. **Knowledge of specific environmental risks** and whether the degradation of Cambodia's environment drives them to want to reduce plastic bag use;

3. **Willingness to pay**, for example encouraging the consumer to forego a bag by either charging them for it or offering a discount on their purchase.

These potential triggers for behaviour change will be tested in a series of behavioural trials at Orussey Market in Phnom Penh. The results will be used to develop the design of the campaign and provide additional content for the strategy.

Channels

A landscape analysis was conducted to document the channels with the greatest reach among urban audiences. This section begins with a brief overview of the most common channels and concludes with suggestions of channels that may be used in the planned BCC campaign.

Overview

Television: Television reach is very slowly losing ground to mobile consumption of social media in urban areas, but it is still by far the dominant channel in Cambodia. An estimated 99% of urban households own one television and more than 80% of viewers tune in for at least one hour a day.

Radio: Fewer households have radios compared to televisions, but radio is still a force in Cambodia, with a large range of channels and steady reach over the last several years. Three-quarters of the population listen to the radio each week, though the audience is more skewed towards rural than urban listeners.

Newspapers: There are over 10 Khmer language newspapers published regularly but only 2% of Cambodians read newspapers. Urban readership is higher than in rural areas, but low literacy and lack of affordability combined with low perceptions of media independence limit the impact of newspaper advertising.

Social Media: Social media consumption on mobile devices is the driving force behind internet adoption in Cambodia. Roughly 26% of people report owning a smartphone. In terms of penetration, numbers vary, but most studies agree that somewhere between a quarter and a third of Cambodians are now online. At least 16% of the total population is using social media, and over 90% of Cambodians who access social media do so via mobile devices. Social media activity is predominantly on Facebook (with YouTube edging up in popularity). Social media is not, however, limited to young users. The precipitous rise of internet use means that older segments of the population are also able to access social media, including Facebook.

Observations in the wet market during peak hours revealed that almost none of vendors had time to consume any media as they were completely consumed with transactions. In the lifestyle section, the pace is slower and many vendors were observed using their smartphone. Some vendors even have a television set.

Suggested channels

The design of the BCC campaign is currently underway. Once completed, the intervention design will determine the final media mix, which may require changes to the suggested channels below.

a. **Mass media** (television, radio) may be used to reach the vast majority of consumers and vendors in Cambodia with the objective of raising awareness of the sheer volume of plastic bags consumed by each person per year, and to highlight the negative impact of using plastic bags on human health.

b. **Experiential, market-based events** will be the key channel to simultaneously engage consumers and vendors at the markets. Tactics could utilize billboards, benches, interiors and exteriors installations at markets, business vehicles, floor decals, banners, posters, leaflets, etc.

c. **Students/youth groups** are another channel that is being explored is the possibility of engaging students and civil society groups as a channel for dissemination of messages where appropriate.

d. **Social media** will be used as needed to engage consumers and vendors.

Stakeholders

A variety of institutions have been identified and consulted regarding their role in the project. Table 3 includes the key stakeholders involved thus far. This list will be expanded and completed once the design of the campaign is further developed. At this stage, there appears to be significant interest from both public and private sector partners to participate.

Table 3: Stakeholders and their roles

Institution	Role in BCC Campaign
General Department of Environmental Knowledge and Information (Ministry of Environment)	• Endorse BCC Campaign • Engage students as agents of change, possibly through televised debate topics on plastic bags, social media channels and through school Eco-Club programmes
Royal University of Phnom Penh	• Responsible monitoring and evaluation
Market chiefs	• Provide access to their markets for testing and campaign • Create enabling environment for campaign to be implemented • Promote campaign through their social media channels • Act as spokesperson/advocate for campaign
National Committee for Clean City Assessment (Ministry of Tourism)	• Endorse BCC Campaign
National Council for Sustainable Development (Inter-ministerial body under Ministry of Environment)	• Provide information on relevant policies
European Union	• Endorse BCC Campaign and potentially leverage high-level participation from EU representatives in Cambodia
Quicksand	• Bring knowledge and perspective to BCC campaign ideas

MONITORING & EVALUATION

BCC CAMPAIGN

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4 MONITORING & EVALUATION

BCC Campaign

The Royal University of Phnom Penh is responsible for monitoring and evaluation throughout the project. A baseline is planned to begin in January 2016 and an endline will be done at the end of the project in 2017, with a possibility for a mid-term evaluation. Tables 4 and 5 include suggested potential indicators that could be used to track the results of the 17 Triggers BCC campaign that will be launched in May 2016. The campaign will be run in three major cities: Phnom Penh, Siem Reap and Sihanoukville.

Monitoring: Monitoring will be conducted throughout the campaign to measure audience recall of messages and uptake of behaviour that will lead to a reduction in plastic bag use. Key behaviors to be tracked are primarily looking at 1) whether vendors will push 'combination' behaviours; 2) whether consumers will accept 'combination' behaviours; and 3) whether consumers will demand combination behaviours. A baseline and endline will be carried out regarding the number of bags given out at markets, before and after the campaign.

Evaluation: As markets are the ecosystem of focus, one possibility is to use a control market(s) (where no interventions are taking place) to compare with intervention market(s) where BCC campaign activities are carried out. While all vendors and consumers would be exposed to mass media aspects of the campaign, having a control will help to determine the impact of experiential, market-based activities.

Table 4: Suggested indicators for monitoring and evaluation (in order of priority)

No.	Potential indicator	Location	Notes
1	Recall of the campaign and its key messages • % of people surveyed that can remember existence of our plastic bag campaign • % of people that can remember specific messages from the campaign	• At the market • Beyond the market to general public (supermarkets, schools, public places, etc.)	• For Baseline: Ask about other campaigns and if respondent can cite key messages, campaign slogan or characters (prompted and unprompted) • For Endline: Ask about ACRA BCC campaign
2	Number of bags given out by different types of vendors in the market per transaction Track through observation, at least 5 vendor categories, e.g. 1. Vegetables (a must) 2. Fruit 3. Dry/packed food (dried fish, snacks, sauces etc.) 4. Clothes and accessories (lifestyle) 5. Household Items 6. Electronics	• At the market	• Baseline and Endline • Ideally we want a baseline and endline for the number of bags being given out at intervention markets each day or at peak times (morning rush) • Look for correlation between number of bags given out and vendors combining behaviour (no. 3) • Please aggregate and disaggregate different vendor/sales categories, e.g. fruits, vegetables, dry foods, household items, clothes and accessories, electronics etc.

Table 4: Suggested indicators for monitoring and evaluation (in order of priority)			
No.	**Potential indicator**	**Location**	**Notes**
3	Number of times vendors combine when opportunities* are present, i.e. • combine several items in one bag • ask customer to add item(s) to their existing bag** *opportunities include: having enough space in a bag to combine, items that are not excessively dirty, e.g. meat is not an opportunity **existing bag includes a plastic bag that the customer has received from another store, their own basket, an eco-bag etc. ANY bag	• At the market	• Baseline and Endline • Sample selection is important to ensure a variety of vendor types but also take into account shop size, high/low traffic vendors etc. • Please aggregate and disaggregate different vendor/sales categories, e.g. fruits, vegetables, dry foods, household items, clothes and accessories, electronics etc.
4	Number of consumers that initiate combining behaviour, e.g. • not wanting a bag, adding to existing purchase • asking vendor to combine • bringing own bag and putting purchases directly in it • forego a bag altogether	• At the market • Other shopping outlets (supermarkets, *chab houys*, marts etc.)	• Be sure to use same locations for baseline and endline • Please aggregate and disaggregate different shopping outlets
Secondary priority			
5	• Number of consumers bringing their own bags/ baskets	• At the market • Other shopping outlets (supermarkets, *chab houys*, marts etc.)	• Be sure to use same locations for baseline and endline • Please aggregate and disaggregate different shopping outlets
6	Number of consumers that opt out and want an extra bag, i.e. • want more bags when vendor combines items • say ‘no’ when vendors ask if they can add items to their bag	• At the market • Other shopping outlets (supermarkets, *chab houys*, marts etc.)	• Be sure to use same locations for baseline and endline • Please aggregate and disaggregate different shopping outlets

Table 5: Suggested indicators for monitoring and evaluation of alternate channels[7]			
No.	**Potential indicator**	**Location**	**Notes**
1	Social media tracking	• Online	• Endline only: based on actions/ messages of campaign, e.g. • Facebook: likes, comments, shares • Instagram: posting photos with eco-alternative • All: use of #hashtag
2	Number of students involved in BCC campaign	• TBD	• Endline only: based on actions taken during campaign

7. Table 5 is a top priority, but potential indicators will be more clearly defined when 17 Triggers decides on the channels and calls to action to focus on.

ANNEXES

ANNEX 1 & 2

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6 ANNEXES

Annex 1: Elephant Rider Path Framework

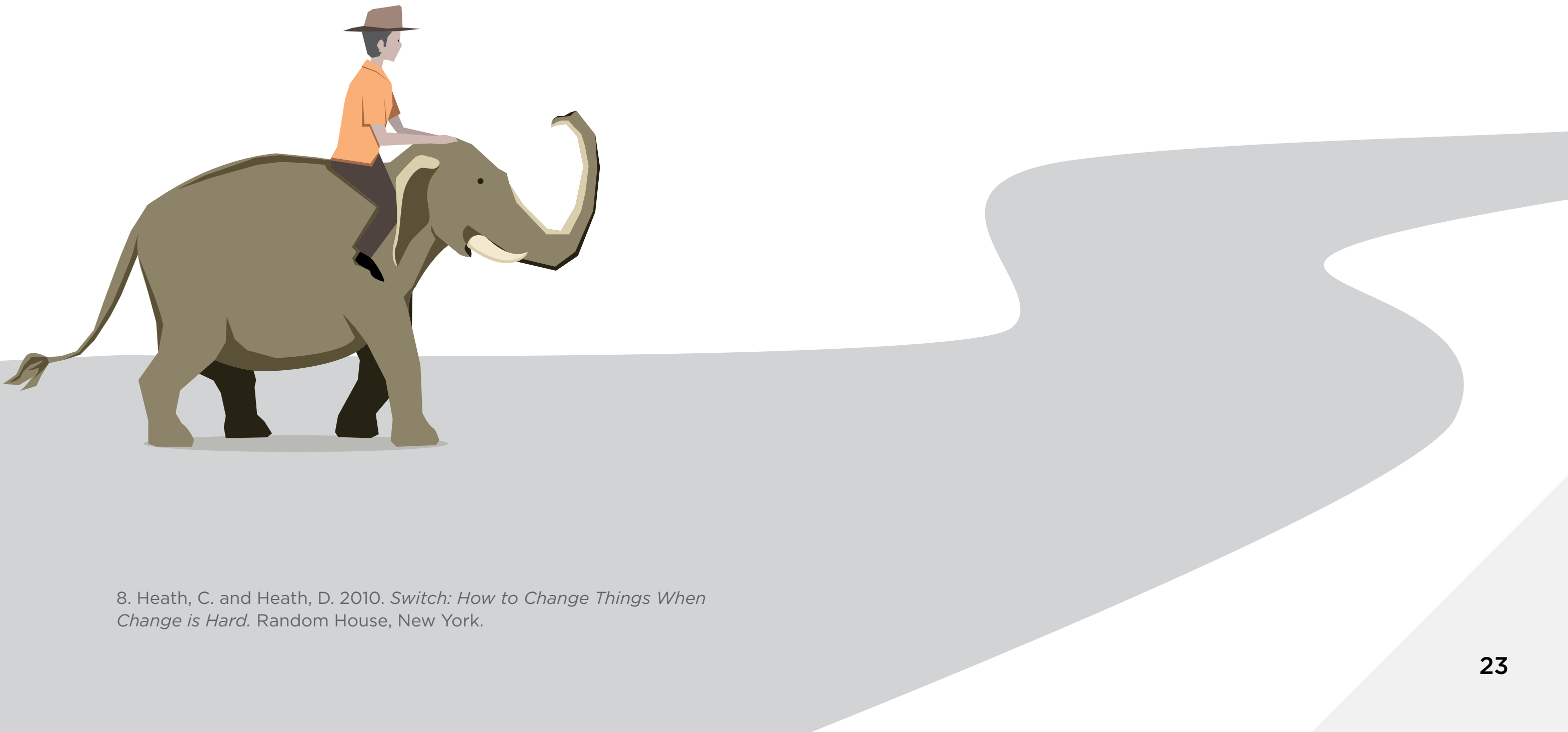
While there are many models to trigger behaviour change, the simple but powerful framework we use to understand behaviour change is the Elephant Rider Path metaphor developed by Chip and Dan Heath in their book *Switch*[8].

Elephant Rider Path is a story of three elements. Inside of every one of us, we have an elephant and an elephant rider. Together, they make decisions.

The Elephant Rider represents the rational side of the person whose behaviour you are seeking to change. The Rider must be clearly directed on where to go and the action(s) to take in order to reach their goal. For example, the action may be wearing a helmet when they ride their motorcycle. The reason is clear — if you get into an accident, wearing a helmet could save your life.

But the choices that people make are not strictly governed by logic. The Elephant, which represents the emotional side of human beings, needs to be motivated. The Rider can train the Elephant to go in a specific direction, but if the elephant is thirsty, for example, it will go to the river regardless of what the Rider tries to do. Let's go back to the example of the helmet. We know that we should wear a helmet to prevent serious accidents, yet we find excuses not to — our hair might get messy, or it is only a short distance so it doesn't matter. Emotions have a strong in influence on our actions and often prevent us from implementing the more rational decision.

Then there is a third element, which is the Path. The Path represents the situational and environmental context that makes it either easy or difficult to change. If there is a law that fines motorcycle drivers for not wearing a helmet, people will start to wear it. On the other hand, if good quality helmets are not available or too expensive, there is a limit to who can adopt that behaviour. The Path can sometimes be a quick fix and at other times be completely out of our control. In essence, all three elements are needed to move towards behaviour change.



8. Heath, C. and Heath, D. 2010. *Switch: How to Change Things When Change is Hard.* Random House, New York.

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ANNEXES

Annex 2: SaniFOAM Behaviour Change Framework

SaniFOAM[9] was developed to examine sanitation behaviours and has been used in different contexts and for various WASH behaviours (e.g., latrine uptake, faecal sludge management). The SaniFOAM framework examines behavioural determinants, factors that can help or prevent someone from adopting a behaviour and is divided into four columns. The section below provides a brief summary of each determinants. A more comprehensive explanation can be found on the website of the World Bank's Water and Sanitation Program (WSP).

Focus refers to the need to identify the desired behaviour and the target populations where this target behaviour is to be promoted.

Opportunity is a category of four factors that can affect an individual's chance to perform the target behaviour including structural and institutional factors (e.g., social norms, fines or sanctions, and access to products and services). Under this column is a set of four determinants:

- *Access/availability:* the ease of obtaining or accessing products (e.g., latrines, masons).
- *Product attributes:* aspects people like about a product (e.g., durability, smell).
- *Social norms:* rules or patterns that govern the way individuals/ communities behave – "if everyone is doing it, why can't I?"
- *Sanctions/enforcements:* punishments/rules that encourage or discourage people to engage in a behaviour (a fine for not wearing motorcycle helmets).

Ability is a category of factors related to an individual's skills and capacity to perform the target behaviour. Under this column is a set of five determinants as defined below:

- *Knowledge:* facts accumulated through learning about objects, actions, and events that are true.
- *Skills/self-efficacy:* knowledge needed to adopt a behaviour such as building a latrine (skills) and confidence in one's ability to carry out a behaviour (self-efficacy).
- *Social Support*: Physical and emotional or informational comfort given to individuals by family or community members, friends, co-workers, and others.
- *Roles and Decisions:* Function of person(s) within the household/community who makes decisions or can influence behaviour.
- *Affordability:* Actual or perceived ability to pay for a product, service or the opportunity cost of carrying out a behaviour in terms of time and/or money available.

Motivation is a category of factors that affect an individual's desire to perform the target behaviour including their beliefs and values and social, physical, or emotional drivers. Under this column is a set of six determinants:

- *Beliefs/attitudes:* Opinions of a product or behaviour by an individual, which may or may not be true.
- *Values:* Beliefs shared by group or community about what is good and desirable and what is not.
- *Emotional/physical/social drivers:* Feelings such as pride, disgust or shame can affect whether a person does or does not carry out a behaviour.
- *Intention:* What can be done to make the practice easier: intention represents an individual's plan to engage in a specific behaviour (e.g. saving for a latrine).
- *Willingness to pay*: How much households or individuals are interested in paying for a product or service, in cash or credit.
- *Competing priorities:* Competing demands for resources that will affect behaviour including food, shelter, water, health fees school fees, weddings, cell phones, etc.

9. Devine, J. 2010. Introducing SaniFOAM: A Framework to Analyze Sanitation Behaviors to Design Effective Sanitation Programs. Water and Sanitation Program, the World Bank. October.