

EXCESS BAGGAGE

REDUCING PLASTIC BAG WASTE IN MAJOR CITIES OF CAMBODIA

DESIGN OF PRODUCT AND SERVICE ALTERNATIVES TO PLASTIC BAGS

RECOMMENDATIONS FOR POLICY CONSIDERATIONS



Fondazione
ACRA,
Italy



Phnom Penh
Capital Depart-
ment of Environ-
ment



Royal
University
of Phnom
Penh



National
Committee for
Clean City
Assessment

funded by



switchasia
P R O G R A M M E

This report was produced within the framework of the project “Reducing plastic bag waste in major cities of Cambodia” funded by the European Union under the SWITCH-Asia Programme.

The project is implemented in Cambodia by Fondazione ACRA, the Phnom Penh Capital Department of Environment and the Royal University of Phnom Penh, in cooperation with the Ministry of Environment, the National Council for Sustainable Development, the National Committee for Clean City Assessment and local authorities.

Report Author:



Quicksand is a strategic innovation consultancy headquartered in India, and working in emerging markets. For more information on their work, please visit www.quicksand.co.in

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

www.ec.europa.eu

www.ecas.europa.eu/delegations/cambodia

www.switch-asia.eu

For further information on the implementing partners, please visit :

www.acra.it

www.rupp.edu.kh

www.moe.gov.kh

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

Disclaimer: This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of Fondazione ACRA and can in no way be taken to reflect the views of the European Union.

January 2016 © Fondazione ACRA

PROJECT BRIEF

REDUCING PLASTIC BAG WASTE IN MAJOR CITIES

REDUCING PLASTIC BAG **WASTE**

OVERUSE

Using more bags than required in an occasion.

MISUSE

Using plastic bags where they shouldn't be used.

IMPROPER DISPOSAL

Throwing waste in unintended spaces that has a direct implication on civic surroundings, infrastructure, or environment.

NO RECLAIM VALUE

Not extracting value from plastic bags after they are thrown away.

PRIMARY IMPACT

REDUCING WASTE

OVERUSE

Using more bags than required in an occasion.



ENVIRONMENTAL

MISUSE

Using plastic bags where they shouldn't be used.



HEALTH

IMPROPER DISPOSAL

Throwing waste in unintended spaces that has a direct implication on civic surroundings, infrastructure, or environment.



ENVIRONMENTAL

NO RECLAIM VALUE

Not extracting value from plastic bags after they are thrown away.



ENVIRONMENTAL

THEMES FOR POLICY CONSIDERATIONS

OVERUSE

How might we leverage policy to curb over-use of plastic bags?

MISUSE

How might we create health-centric policies to discourage plastic bags?

IMPROPER DISPOSAL

How might we use policy to reinforce and create better behaviors around disposal of plastic bag waste?

NO RECLAIM VALUE

How might we use policy to envision better support systems for processing waste?

CRITERIA FOR POLICY RECOMMENDATIONS

HIGH ACTIONABILITY

Policies that are easy to enforce at scale for maximum impact.

EVIDENCE BASED

Based on observations and conversations that we have had through the course of our research (both primary and secondary).

DEMONSTRATES REAL BENEFITS TO DIFFERENT AUDIENCES

To minimize push back from different stakeholders that are affected by the new policies.

A MIX OF IMMEDIATE AND FUTURE FACING STRATEGIES

Being mindful of the realities of present day challenges, but also thinking of the bigger picture.

THEME 1 | HOW MIGHT WE LEVERAGE POLICY TO CURB OVER-USE OF PLASTIC BAGS?

THEME 1 | HOW MIGHT WE LEVERAGE POLICY TO CURB OVER-USE OF PLASTIC BAGS?

A. BANNING THE SALE AND USE OF THIN, COLORED PLASTIC BAGS.

WHY ? Small and thin plastic bags tend to be over-used because of their low cost and disposed without consideration because of low quality.



LOCAL
WET
MARKETS



NEIGHBORHOOD
CHAB
HOUYS



A. BANNING THE SALE AND USE OF THIN, COLORED PLASTIC BAGS.



OPPORTUNITIES

There are already negative associations of quality, smell etc. that are associated with colored plastic bags that can be leveraged to enforce such a policy.



Local wet markets, the largest users of such bags, offer control and oversight through the market administration to enforce such a policy, in a consistent manner.



RISKS

Might disrupt the livelihoods of small vendors, unless we bring around a change in social practices around acceptance and need for plastic bags with every transaction.

THEME 1 | HOW MIGHT WE LEVERAGE POLICY TO CURB OVER-USE OF PLASTIC BAGS ?

B. LEVYING CONSUMERS WITH A MINIMUM CHARGE FOR PLASTIC BAGS.

WHY ? Plastic bags are considered a free resource by consumers. By appealing to businesses (specially those of a formal nature) to charge for plastic bags we can begin to shift this perception.



SHOPPING
AT MODERN
RETAIL



LOCAL
WET
MARKETS



B. LEVYING CONSUMERS WITH A MINIMUM CHARGE FOR PLASTIC BAGS.



OPPORTUNITIES

Supermarkets are not frequented by many but remains an aspirational retail format for a lot of Cambodians. Any trend here is bound to be seen as progressive and picked up by other vendors.



Local markets could also be one of the intended focus areas, specially in the future when better alternatives like bio-plastics become more affordable and accessible. This could be one way to offset the cost for the vendor.



RISKS

Still needs to consider the business side of things. Supermarkets are as weary to levy charges for plastic bags out of fear of losing customers. But there might be ways in which good behavior could also be incentivized through rewards.

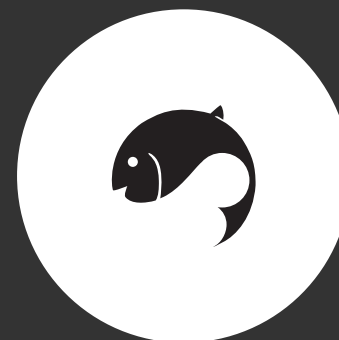
THEME 1 | HOW MIGHT WE LEVERAGE POLICY TO CURB OVER-USE OF PLASTIC BAGS ?

C. BETTER SYSTEMS FOR SUPPLY CHAIN OF PERISHABLES

WHY ? Everyday, thousands of kilos of plastic bags are used to process, store, re-package and transport perishables that come from provinces. While some reclaim happens, most of it ends up in landfills.



SUPPLY
CHAIN FOR
PERISHABLES



LOCAL
WET
MARKETS



C. BETTER SYSTEMS FOR SUPPLY CHAIN OF PERISHABLES.



OPPORTUNITIES

Using re-usable alternatives could potentially save vendors a considerable amount of money that is currently spent on buying plastic bags everyday.



This activity is limited to a few big markets and is controlled by a small number of business-owners, who have a set routine and regular customers.



RISKS

Requires investment in proper systems and alternatives like boxes, crates and re-usable sacks that are prone to breakage and theft, and require space for storage and safe-keeping.

THEME 2 | HOW MIGHT WE CREATE HEALTH-CENTRIC POLICIES TO DISCOURAGE PLASTIC BAGS?

A. ENGAGING CITIZENS ON THE IMPACT OF PLASTIC BAGS ON HEALTH.

WHY? Plastic bags are known to have health impact on humans (Endocrine disruption). The widespread use of plastic for both hot and cold food should be an area of long-term concern for all societies and it's important to educate citizens.



FOOD &
BEVERAGE
ON THE GO



A. ENGAGING CITIZENS ON THE IMPACT OF PLASTIC BAGS ON HEALTH.



OPPORTUNITIES

Personal health and hygiene are important considerations for Cambodians. This aspect should be used to communicate the harmful impact of plastic bags on human health and the need to avoid using them.



There are a number of food businesses – restaurants, street food, and others where display of health information about plastic bags could be done (at the point of use) to discourage people from asking for plastic bags.



RISKS

The message should be widely displayed and repeated across various media – television, at the point of purchase, in schools and colleges etc. such that there is voluntary reduction without the need to enforce a ban.

THEME 2 | HOW MIGHT WE CREATE HEALTH-CENTRIC POLICIES TO DISCOURAGE PLASTIC BAGS?

B. ENFORCING NO PLASTIC BAG ZONES AT SCHOOLS AND UNIVERSITIES.

WHY? Parents and elders are more sensitive about their children's health than their own. Children and youth are important users to target as the focus of communication and implementation.



FOOD &
BEVERAGE
ON THE GO



B. ENFORCING NO PLASTIC BAG ZONES AT SCHOOLS AND UNIVERSITIES.



OPPORTUNITIES

Each school and university has food retailers within the campus, or are located immediately outside – these businesses should be considered within the zones of influence. Takeaway packaging may not be critical.



There are existing associations of some plastic bags (colored) being harmful to health. Children and the youth are aware that plastic bags damage the environment. This awareness should be built on with a call to action.



RISKS

Partnering with children and the youth as stakeholders would be key. Collaborating with school management and teachers would also be an important aspect of implementation.

**THEME 3 | HOW MIGHT WE USE POLICY TO REINFORCE
AND CREATE BETTER BEHAVIORS AROUND DISPOSAL OF
PLASTIC BAG WASTE?**

THEME 3 | HOW MIGHT WE USE POLICY TO REINFORCE AND CREATE BETTER BEHAVIORS AROUND DISPOSAL OF PLASTIC BAG WASTE?

A. ENFORCING THE LITTER POLICY – FINES & BINS – AT LOCAL BUSINESSES.

WHY? Food consumption and purchases at Chab Houys contribute to litter in the cities. The lack of infrastructure and systems (like dustbins) is often recognized as the first cause of litter.



FOOD &
BEVERAGE
ON THE GO



NEIGHBORHOOD
CHAB
HOUYS



A. ENFORCING THE LITTER – FINES & BINS - POLICY AT LOCAL BUSINESSES.



OPPORTUNITIES

There is existing policy that can be used to hold businesses accountable for the waste they generate. It could start with the simple requirement of a visible dustbin at each of these retail locations.



Locations such as popular markets, tourist areas, VIP areas, government offices etc. could be chosen as the first locations to implement this policy. Potential sponsors for bins and other infra should be researched.



RISKS

It would be a substantial challenge to implement the policy across all cities, all locations and all businesses at the same time – it would be important to prioritize the focus of implementation.

THEME 3 | HOW MIGHT WE USE POLICY TO REINFORCE AND CREATE BETTER BEHAVIORS AROUND DISPOSAL OF PLASTIC BAG WASTE?

B. ENGAGING COMMUNITIES TO BETTER MANAGE THE IMPACT OF WASTE.

WHY? Communities are the ones most impacted by improperly disposed waste. Building a sense of shared ownership of spaces and the impact of waste could encourage long-term positive behaviors.



FOOD &
BEVERAGE
ON THE GO



NEIGHBORHOOD
CHAB
HOUYS



B. ENGAGING COMMUNITIES TO BETTER MANAGE THE IMPACT OF WASTE.



OPPORTUNITIES

Low income and peri-urban communities are some of the worst affected by uncollected waste. Engaging them could be an important step in positively influencing the quality of life in these communities.

Engaging communities to better manage their neighborhoods and public spaces would help solve problems early. It would also go a long way in creating better urban spaces for locals and for tourists.

RISKS

It would require visible participation and support from community and national leaders. It would also be important to show and celebrate participation and change even at the smallest levels.

THEME 3 | HOW MIGHT WE USE POLICY TO REINFORCE AND CREATE BETTER BEHAVIORS AROUND DISPOSAL OF PLASTIC BAG WASTE?

C. ENFORCING NO PLASTIC BAG ZONES AT TOURIST ATTRACTIONS.

WHY? Tourism is a crucial part of the economy and tourists build negative perceptions because of litter. Tourists are also influencers of behaviors amongst locals – an opportunity to make use of.



FOOD &
BEVERAGE
ON THE GO



LIFESTYLE
PURCHASES



C. ENFORCING NO PLASTIC BAG ZONES AT TOURIST ATTRACTIONS.



OPPORTUNITIES

There are management systems at tourist locations that can be used to enforce no plastic zones. Prices of products also tend to be higher at these locations so vendors can choose better alternatives (like paper).



There is a wide acknowledgement amongst international tourists and locals that tourists themselves need to be more responsible. A ban would be an important 'message' sent across by the government to all people.



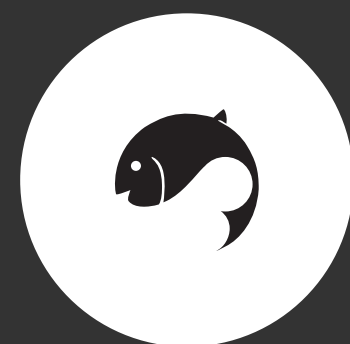
RISKS

It might be easier to start with recognized zones such as the Angkor / Apsara area. Also, enforcement should extend to packaging such as Styrofoam that is even worse for the environment than plastic bags.

THEME 3 | HOW MIGHT WE USE POLICY TO REINFORCE AND CREATE BETTER BEHAVIORS AROUND DISPOSAL OF PLASTIC BAG WASTE?

D. ENCOURAGING SEGREGATION OF WASTE AT MARKETS & RESTAURANTS.

WHY? Segregation allows different kinds of waste to be managed in a customized and thus effective manner. Commercial waste is a regular and sizable portion of overall waste (and bags) generated in the cities.



LOCAL
WET
MARKETS



FOOD &
BEVERAGE
ON THE GO



D. ENCOURAGING SEGREGATION OF WASTE AT MARKETS & RESTAURANTS.



OPPORTUNITIES

Each market has formal management mechanisms to enforce rules. The practice of segregation of plastic bags can start with vendors at the markets. Segregated dustbins could be introduced within the markets.

The local Etchay network is wide reaching and can be partnered in a formal manner to create a mechanism to collect plastic bags at scale from the markets and restaurants.

RISKS

Segregation is observed when the value of waste is high. For day to day waste, until new infrastructure (segregated dustbins at the markets) or systems are put in place, segregation would be difficult to achieve.

**THEME 4 | HOW MIGHT WE USE POLICY TO ENVISION
BETTER SUPPORT SYSTEMS FOR PROCESSING WASTE?**

A. CREATING GUIDELINES, STANDARDS AND A ROADMAP FOR NEW ALTERNATIVES.

WHY ? There are new material alternatives (bio-plastics / compostable paper) that will become commercially viable in the future. However the environmental impact of these materials still need to be evaluated in a rigorous manner. Once these standards are established, one could incentivize suppliers to switch to these alternatives and fight plastic bags at scale.

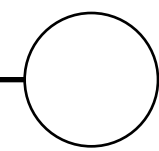


B. INCENTIVIZING LOCAL WASTE PROCESSING INFRASTRUCTURE FOR FUTURE ALTERNATIVES.

WHY ? The recycling of plastic bag suffers heavily due to the effort involved in processing and because of extremely low cost for reclaimed waste. Any viable alternative, plastic or otherwise, that might be introduced in the future will still require basic processing like composting or recycling, otherwise it might run the same fate as the present.

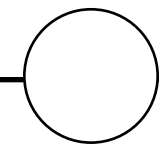


MAPPING TIMELINES FOR INTERVENTION



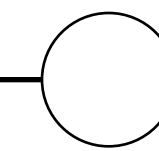
IMMEDIATE

No alternatives, mainly looking at reducing or optimizing use.



NEAR FUTURE

Strengthening civic infrastructure, and support systems around recovery.



FURTHER OUT

Alternatives are available and commercially viable, looking to replace plastic bags.

MAPPING TIMELINES FOR INTERVENTION

1.A. Banning the sale and use of thin, colored plastic bags.

1.B. Levying consumers with a minimum charge for plastic bags.

1.C. Better systems for supply chain of perishables

2.A. Engaging citizens on the impact of plastic bags on health.

3.A. Enforcing the litter policy – fines & bins - at local businesses.

3.B. Engaging communities to better manage the impact of waste.

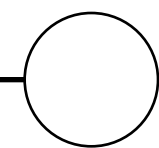
3.D. Encouraging segregation of waste at markets & restaurants.

2.B. Enforcing no plastic bag zones at schools and universities.

3.C. Enforcing no plastic bag zones at tourist attractions.

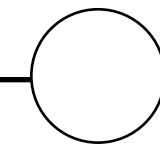
4.A. Creating guidelines, standards and a roadmap for new alternatives.

4.B. Incentivize local waste processing infrastructure for future alternatives.



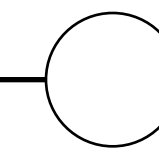
IMMEDIATE

No alternatives, mainly looking at reducing or optimizing use.



NEAR FUTURE

Strengthening civic infrastructure, and support systems around recovery.



FURTHER OUT

Alternatives are available and commercially viable, looking to replace plastic bags.

JANUARY 2016 © FONDAZIONE ACRA

**FOR MORE INFORMATION ON THE PROJECT OR TO VIEW MORE RESOURCES, VISIT
OUR WEBSITE : [HTTP://EXCESSBAGGAGE-CAMBODIA.ORG/](http://EXCESSBAGGAGE-CAMBODIA.ORG/)**