



# ₹UBBISH/KAASU-KASA/KAASU-KUPPAI

## INTRODUCTION

₹ubbish!/Kaasu-Kasa/Kaasu-Kuppai is a trilingual board game in English, Kannada, and Tamil designed based on a decentralised solid waste management in an Indian city. The game is meant for producers of waste, which include both individual (apartments, individual homes, etc) and bulk producers (markets, malls, marriage halls, restaurants, etc) of waste. In playing the game, the audience gets a firsthand experience of what it is to deal in dry waste, the push and pull between environment and economics, and how the actions of someone in the beginning of the waste chain affects the rest of the chain.

## CONTEXT OF THE GAME

Indian cities do not have landfills, rather what they have pockmarking the outskirts of the city are hills of refuse and fester. There does exist something called a 'scientific landfill'. "You take an expanse of land, dig, and create an impermeable layer so that no leachate escapes from the waste to the soil and there is a system to collect the leachate. The waste is compacted into bales and laid out. After completing the landfill, there has to be a layer finally that consists of soil and vegetation. Such landfills eventually get converted to golf courses or are put to some such use that does not involve cultivation.<sup>1</sup>"

What we have in Indian cities are hills of waste — a large expanse of suppurating refuse. An incomplete list of such dumps: Bangalore — Mandur, Mavallipura, Lakshmipura, Bingipura; Mumbai — Deonar, Mulund, Kanjurmarg; Delhi — Ghazipur, Okhla, Bhal-swa; Chennai — Perungudi, Kodungaiyur, Tiruvottiyur<sup>2</sup>.

## BENGALURU'S STORY

Bengaluru moved to a decentralised system of waste management in 2012. As part of operationalising this system, Dry Waste Collection Centres, or DWCCs were to be created in every ward. What was interesting about some DWCCs is that people who were originally from the informal sector have now become managers of DWCCs, and their role is both that of a social worker who is working for the betterment of the environment, and an entrepreneur. Many DWCCs were not making a profit because most producers of waste (both individual and bulk) were unaware about the decentralised system, and they did not understand what role they played. ₹ubbish! was designed for producers of waste — both individual and bulk to learn about the complexities of the decentralised system, the tug-of-war between environment and economics, and how segregation is important for the success of such a system.

<sup>1</sup> <http://www.thehindu.com/thread/politics-and-policy/when-mountains-of-garbage-come-crashing-down/article18383260.ece> - An article on waste management in Indian cities by Sruthi Krishnan, Fields of View

<sup>2</sup> *ibid*



Images 1 and 2: Assets of the game



## GAME PLAY

In the game, the players play the role of a Dry Waste Collection Centre (DWCC) Manager. Every round the city generates waste. Players have to trade in dry waste, make a profit, and create DWCCs in all wards in the city. The game board has a stylised map of the city with 18 wards. Any waste not collected by the centres goes to the landfill. If the players manage to create a dry waste centre in every ward, they all win the game. Meanwhile, if the landfill gets full, the game ends.

## HOW ₹UBBISH! HELPS

While playing ₹ubbish! producers of waste (both individual and bulk), who are at the beginning of the waste chain, play the role of a DWCC manager, who is in the middle of the supply chain. As ₹ubbish! is modelled based on real data on dry waste collection centres in Bengaluru, players engage with the realities, constraints and challenges of what it takes to run such centres and deal in waste. The is a landfill in the game makes players realise how their actions in the real world affect someone who is in the middle of the supply chain. After playing ₹ubbish!, people have a deeper understanding of the complexities of managing waste, and they speak about how crucial segregation is to the success of the system. They also learn that any dry waste that gets recycled does not go into the landfill, and the DWCCs act as centres to collect waste for recycling - without any preaching or messaging in the game.



Image 3: Game session with pourakarmikas in Bengaluru



Images 4, 5: Game session with DWCC managers from Hasirudala;  
Game session at Saahas.  
Both organisations work on waste management in Bangalore



## OBSERVATIONS FROM GAME SESSIONS

In the game sessions, we observe certain behaviour — initially people are more bothered about profits, and not about the landfill, mirroring the behaviour of city councils. Once the landfill is close to being filled, people start paying attention to it. In addition, there is a 'chance card' that allows players to invest in awareness programmes on segregation to convert unsegregated waste in their ward into segregated waste, which all players love. During the debrief, participants speak about how they did not pay attention to the landfill, and how they have to right from the beginning. They also speak about the importance of segregation to the success of the system. ₹ubbish! is designed as a learning game — participants learn about the complexities of the real-world system of waste. This experiential learning leads to self-reflection. The game does not have artificial incentives, which according to our game design philosophy does not help translate learning from the game world to real world.

## ADAPTING ₹UBBISH! TO OTHER CITIES

The underlying game framework of ₹ubbish! can be easily adapted to any city as long as we have data for that city. Based on the availability of data, we can modify the game for use by different cities. We have played ₹ubbish! with players in Delhi and Chennai, and the learning experience has been the same.



**Image 6: Game session with sanitation workers in Chennai**



## रुBBISH! IN THE MEDIA

The game has been featured in both Indian and international media.

BBC News: <http://www.bbc.com/news/world-asia-india-38494440>

The Newsminute: <http://www.thenewsminute.com/karnatakas/634>

dw.com: <http://www.dw.com/en/mountains-of-trash-indias-waste-problem/a-36493138>

CNN-IBN: <http://www.news18.com/videos/politics/watch-unique-board-game-which-teaches-you-waste-management-1047737.html>

Eartha Magazine: <http://www.earthamag.org/stories/2017/5/24/playing-the-long-game-of-rubbish-and-recycling>

The Hindu: <http://www.thehindu.com/thread/politics-and-policy/when-mountains-of-garbage-come-crashing-down/article18383260.ece>

The Quint: <https://www.thequint.com/lifestyle/2015/03/13/bengalurus-garbage-trouble-in-a-board-game>

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Shylaja Varma, CNN-IBN Correspondent

**THE WASTE SEGREGATION GAME**

IBN Live

POLITICS | AUGUST 19, 2015, 4:08 PM

WATCH: UNIQUE BOARD GAME WHICH TEACHES YOU WASTE MANAGEMENT

In Bengaluru, you can play a unique board game that teaches you a thing or two about waste management. Each player can earn points by successfully segregating their garbage. Here is a report by Shylaja Varma.

Shylaja Varma SHARE VIDEO 🌐 f in t

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Image 7: Screenshot of the IBN video news report on the game