

WASTE SEGREGATION MANAGEMENT (IN BENGALURU)

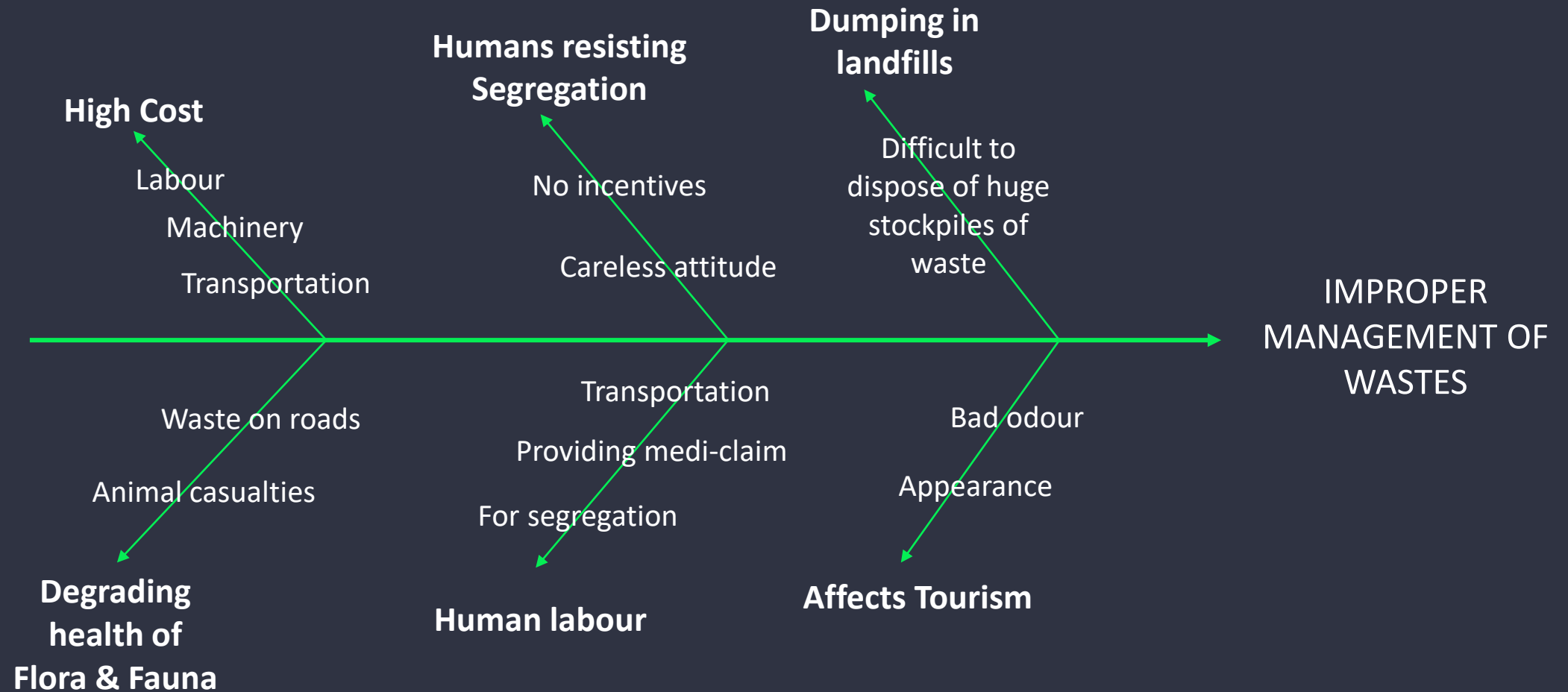
Group 1

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THE PROBLEM STATEMENT

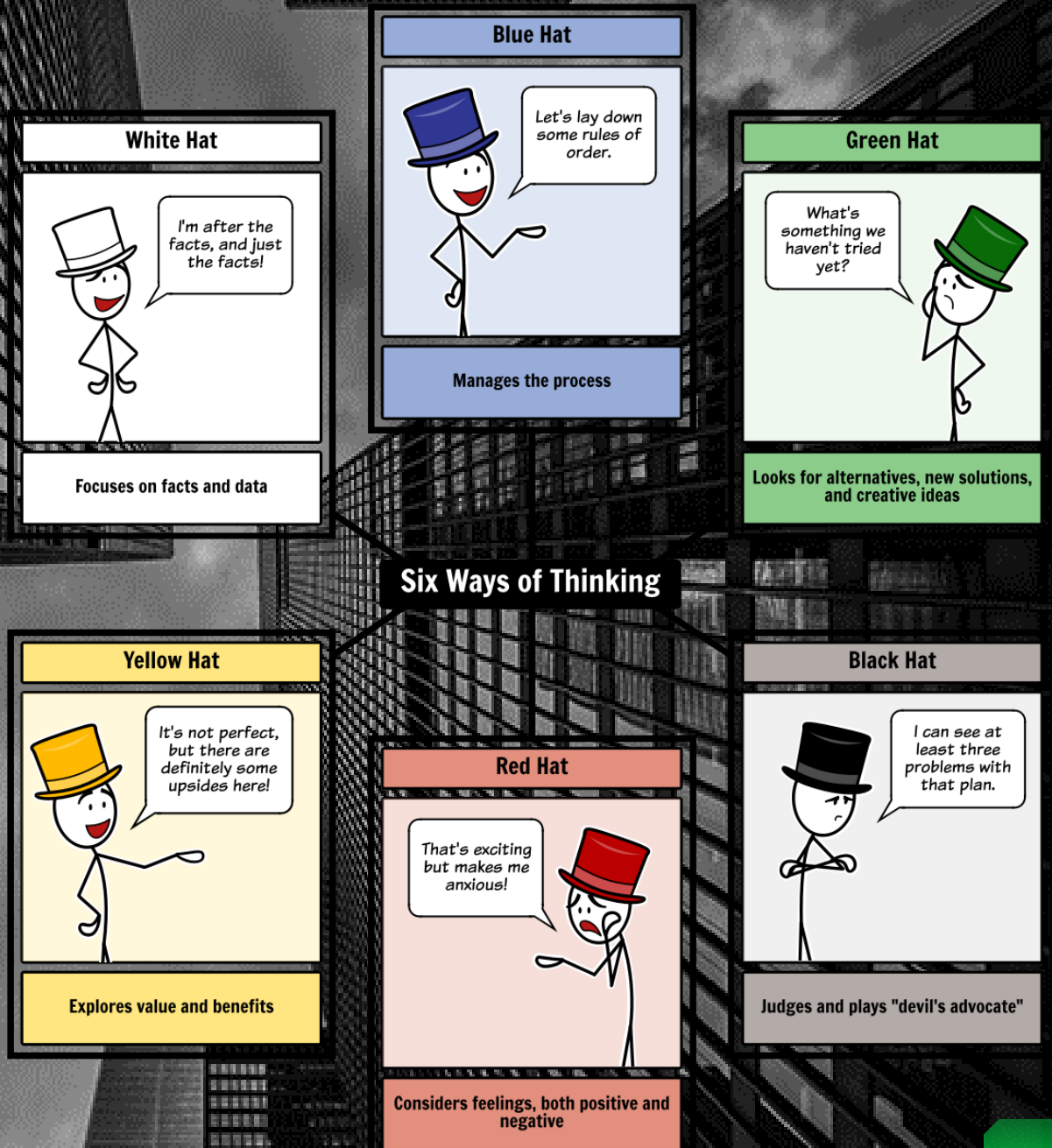
“The BBMP needs an efficient waste management system to reduce resistance from people to segregate domestic wastes and reduce garbage in landfills”

FISH BONE ANALYSIS



THE SIX THINKING HATS

These six thinking hats help us approach the problem in an organized manner



BLUE

- Manage waste in an efficient and cost effective way
- Inspire people to segregate
- Lessen the amount of land for dumping garbage



WHITE

- 5000 tons of garbage everyday, 16% of which is plastic and 1157 tons of dry waste .
- At a retail store, compost is available at Rs. 20-40/kg
- INR 329 Crore in 2013-14 on waste management
- Compost at Rs. 8/kg and at Rs. 5/kg by communities and the govt. respectively
- The cost of plastic is approx. INR 90 per kg

BLACK

- Cost-effective methodology
- Good budget
- Would people easily embrace the change?
- Will they benefit from it?

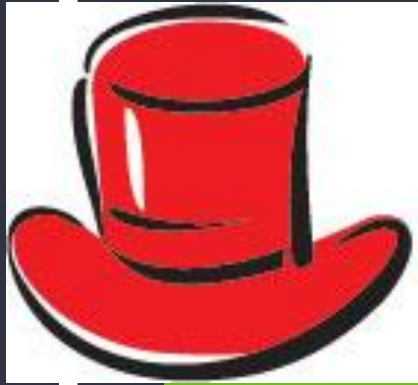


GREEN

- Pique the common man's interest by letting them benefit
- Edible food wrappers
- Exploit the loopholes in already existing policies

RED

- Appeals to the basic conscience
- General benefit of the society



YELLOW

- People earn from garbage.
Garbage bins become money boxes
- **Effectively free** for the public
- Recycling more of the available recyclable plastic
- Compost will be available at a much cheaper price

CONCLUSION

We need to focus on solving the following 3 issues:

- Improper Management of garbage
- Dumping of garbage in landfills
- Resistance of people to segregate their wastes



- Specially designed dustbin for plastics
- Incentives per kg of plastics (R. 10 per kg)
- Separate bin for Biodegradable waste
- BIODEGRADABLE to COMPOST to FARMERS (in lower prices)
- Crushed plastics to Process of SEPERATION BASED ON QUALITY
- Recyclable plastic gets recycled and the rest can be used in road making
- EFFECTIVELY FREE OF COST!!!

OUR IDEOLOGY

BUDGET

- COST OF THE BIN: Dimensions (in feet): $2*1*1$

Area of sheet needed for 1 bin = $1*1 + 4*2*1 = 9$ sq. ft

Price of material for 1 bin = $9*INR\ 30 = INR\ 270$ + Crushers on the opening (INR 55)

Total price of the bin (including manufacturing cost) = **350**

- Total Population of Bengaluru: 1.1 Cr

Part of the population we are targeting (Lower Middle Classes): 50 Lakhs

- COST OF BINS (effectively): Cost to each family = INR 100

Investment on part of the Govt. = $50,00,000*250 = 125$ Cr

Wages to all sort of workers (manual & machinery) = 100 Cr

Total Cost = 225 Cr

- INCENTIVES = INR 250/ household i.e. the dustbin becomes **EFFECTIVELY FREE** in less than a year

Total Cost of Incentives = $25*50,00,000 = 125$ Cr

- TOTAL INVESTMENT = 225 Cr (One-time) + 125 Cr = 350 Cr

- TOTAL **SAVINGS** ON PART OF THE GOVT. = 150 Cr

