The Holi play bags

Problem: Every body loves to play holi, children specially like playing with water balloons, as water balloons have a potential of hurting people, government put a ban on them and as a substitute low thickness plastic bags are used.

Holi is an Indian national festivity on every march, where millions of children and teenagers with their colored faces, use plastic bags empty of colored water as water balloons, but the main problem is that after holi there are many such plastic bags that are causing contaminant litter, that if not cleaned, will go and choke the drainage systems.

¿What can be done to improve this situation with minimum cost?

Use TRIZ in simple stages.

First, we see the Initial situations can be

1. How to make bag that does not hurt and Litter
2. ***How to clear the litter at no cost***
3. How to have bags that do not block the drainage.

Second, Choose that problem situation that can be solved with minimal changes and fast to implement and yet solve the main problem of blockage, that points to situation 2: How to clear the litter at no cost.

Third, Write the initial situation only for problem 2.

There are many thin plastic bags littered all over the place that needs to be cleared. Now use questions:

Plastic bag: Jargon?

Littered: means what?

Cleared: means what?

So, we have:

Plastic bag: thin solid material

Littered: means all over the place

Cleared: absent from the zone.

Initial situation now: ***There is thin solid material all over the place that has to become absent at no cost and minimal changes to system*.**

Altshuller has introduced various models to be used in strong thinking and they are all present in ARIZ 85 hence many people saying that it is difficult.

Fourth, Use the Exaggeration model. Use at minimum 3 level of exaggeration towards plus and 3 towards less.

We will apply the Exaggeration model to the situation and then apply the axiom of Reflection to the step and re correct my self.

Initial situation now: There is thin solid material all over the place that has to become absent at no cost and minimal changes to system.

Then, we have:

1. If I were to imagine at the highest amount of exaggeration the whole earth would be covered by a thin sheet of solid material and if it was to be removed (Thinking analogously this is equivalent to removal of top soil over the earth) the only way we could remove this layer is by Erosion by sunlight, wind, etc) However it is leading us to the direction of self degradable

material and while it is a good direction to pursue, would involve much more effort and cannot be done with minimal changes. So we park this.
2. If we were to imagine a large no of thin solids over an area then we would have people to collect it
3. If we were to have a large no of thin solids in a small concentrated area it would easily be solved by people collecting it
4. If were to imagine a very small amount of thin solids over a large area then we would ignore the problem prompting us to a direction of how to have children not throw such bags. We will park that.

Fifth, after the exaggeration we should reflect back on our thinking.
The rules to have followed were:
1. No jargons and simplification
2. Abstraction
3. Exaggeration.

Our initial situation contains no jargon and is simple, abstraction also fine, exaggeration ok, so what changed after exaggeration.
1. We are parking biodegradable material and non-usage of thin solids for future
2. We receive information that people would easily clean up if the area of litter were small.

So the initial situation now: ***There is thin solid material all over the place that has to become absent at no cost by people picking it up free and with minimal changes to system.***
Now if we were to have a magic wand that can grant a wish to convert the initial situation to a Most Desirable result what would be the answer people are picking up the thin solid material that is all over the place without any fuss.

Sixth, Lets investigate if all the people are picking up the solid material all over the place (in fact fighting to pick it up).
What is the Barrier? Or why are people not fighting to pick up the thin solid material?
For people to fight and pick it up the thin solid material should be valuable but it is currently not valuable at all.
That is consequence of the Exaggeration model.
So the contradiction is the ***thin solid material has to be extremely valuable and not be valuable.***

Seventh, now can you solve this contradiction, notice the application at each stage.
What is extremely valuable? Gold, Money of large quantity, etc.
So the Contradiction can be written as " ***The solid material has to be Gold (or money) so that people will pick it up and not be gold so that it serves the purpose of play"***

If you try to resolve this contradiction in time, when should it be Gold or a large amount of Money and when should it be like a plastic bag? ***The answer is it should be Gold or Large money later and not be gold or large money when using to play.***

Can you now think what can be done? Do you see that TRIZ is a powerful way to solve a problem just like mathematics; hence we say that TRIZ is thinking model not only a tool.

Eighth, write a simple solution. The key to think here was a large amount of litter to be converted in money Millions. ¿Do you know of a method where people get Millions with nothing? Well…….. Lottery is a simple and possible answer.
People use plastic bags and after Holi festival they participate in a lottery concourse because is print a lottery ticket on the bag front. We have improved the situation with a minimum cost.
TRIZ is simple and cost effective.

So it is printed a lottery ticket on the bag, that way we get two benefits, first people will be hesitant to throw and then after thrown it will be collected by people thus stopping the problem of drain choking.
A 13-year-old boy, using TRIZ concepts had developed this solution.

Finally, the exercise objective was to show you how strong thinking works in a systematic way always.
This is what TRIZ is and unfortunately people have misunderstood it to be only 40 principles, we never used any principles, neither did we brainstorm randomly, yet we developed a strong solution with minimal changes to the system.

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