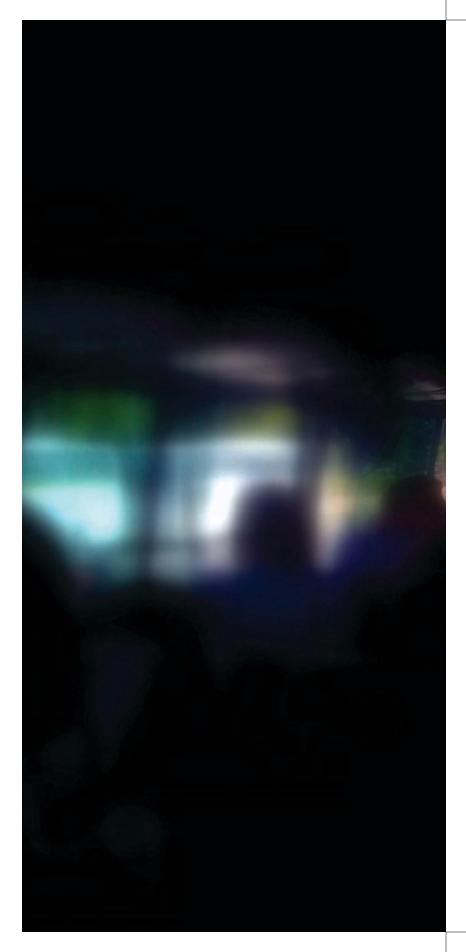
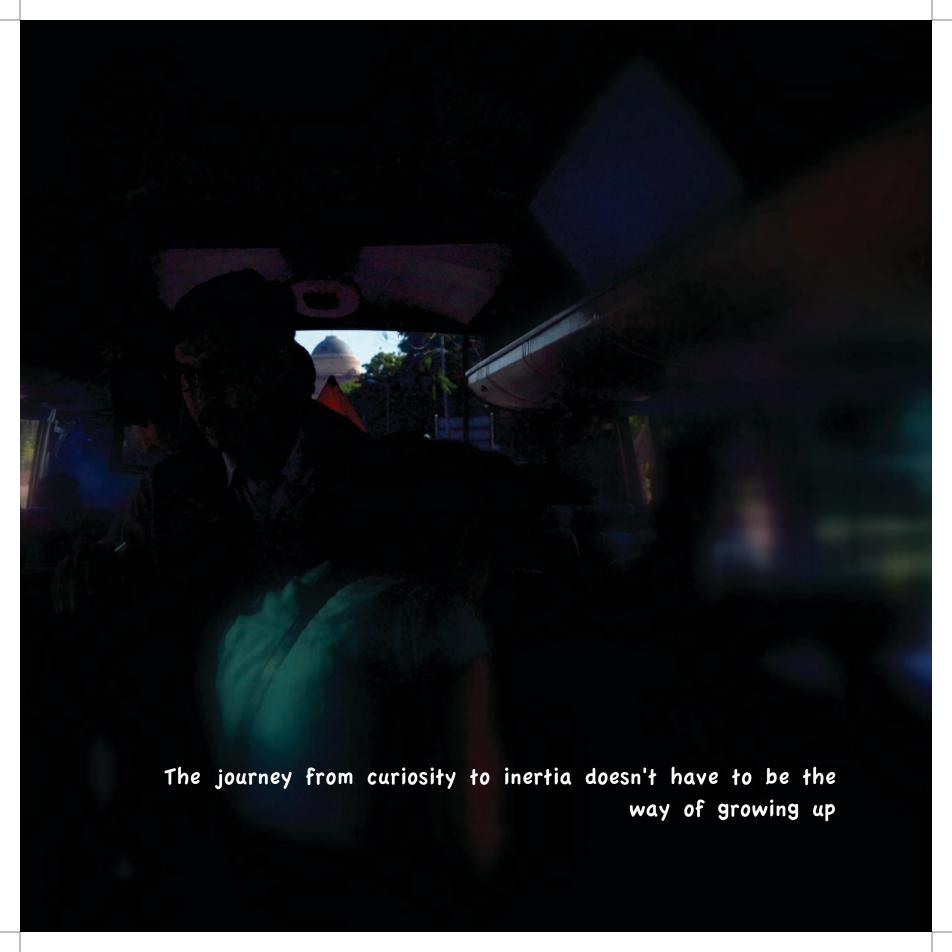


SRISTI extends deep appreciation and gratitude towards UNICEF, National Innovation Foundation-India, and the Office of the President of India for facilitating the organization of the Children's Creativity Workshop during the Festival of Innovation (FOIN). We also thank Pardada Pardadi Inter College, Anupshahar, Uttar Pradesh, The Aga Khan Foundation, The Dil Se Campaign, Rainbow Homes for homeless shelter for girls, Ummeed Aman Ghar homeless shelter for boys, St Paul's Diocesan School, Delhi, Salma Public School, Rataul, Uttar Pradesh, Jamghat, Deepalaya, Katha Lab School, Diksha Foundation, by Dr. Rajendra Prasad Sarvodaya Vidyalaya for their help and support in organizing this workshop.

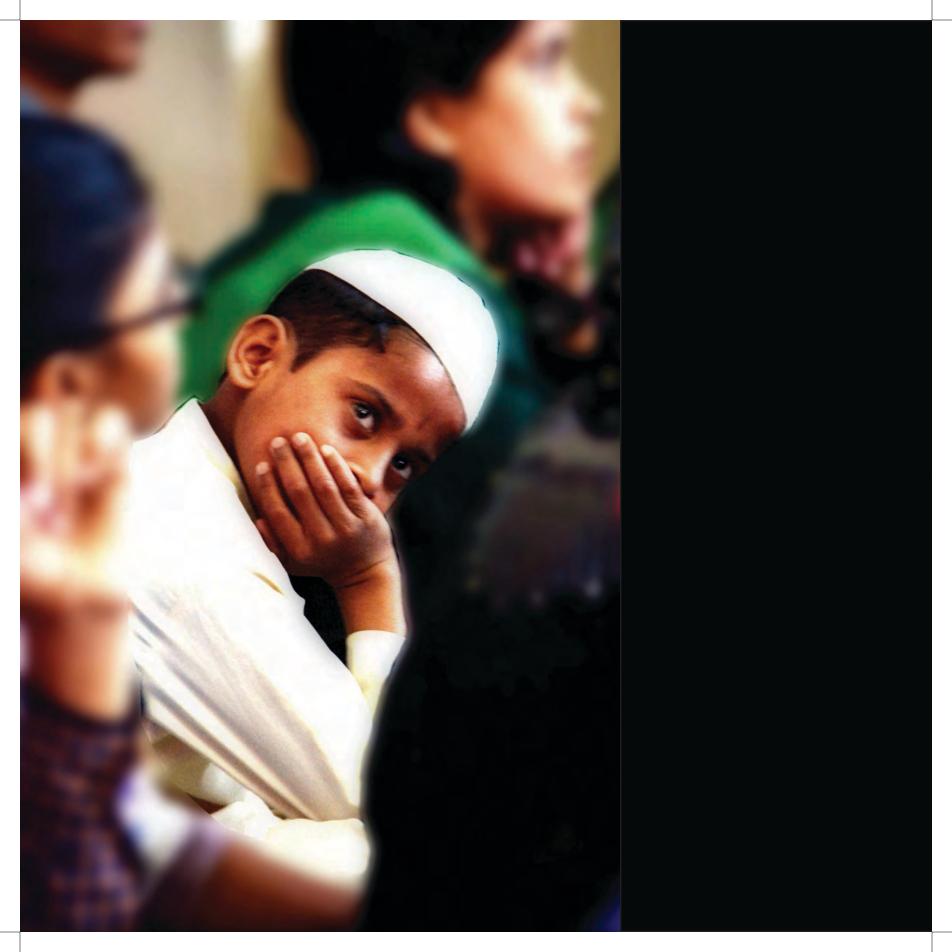




'There are people in the world so hungry, that God cannot appear to them except in the form of bread.'

- Mahatma Gandhi





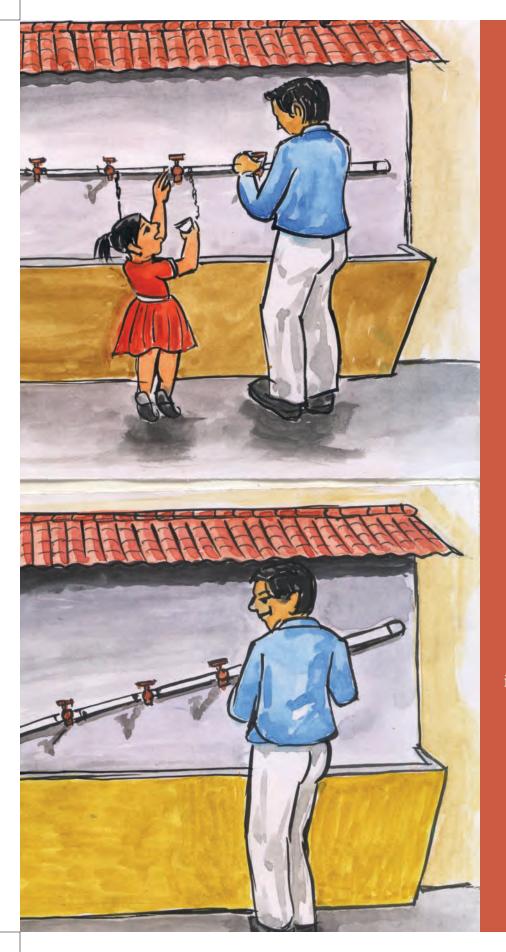
Your children are not your children
They are the sons and daughters of Life's longing for itself
They come through you but not from you
And though they are with you yet they
belong not to you

-khalil Gibran

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### Chhaya Sambhoji Thakor Class VIII

Vidyadham Boru Primary School Gandhinagar

Her innovation: Water taps at schools and other public places installed in an inclined manner.

In almost all the schools, water taps are at the same height from the ground. Taller and shorter children have to face discomfort in drinking water. Chhaya's idea is to have taps arranged at an incline instead of present horizontal arrangement so that a student can use the tap suitable as per his/ her height.

http://nif.org.in/innovation/inclined-installation-of-water-taps/719



नवप्रवर्तन का उत्सव ७-१३ मार्च २०१५ का उद्घाटन श्री प्रणब मुखर्जी भारत के राष्ट्रपति द्वारा

FESTIVAL OF INNOVATION 7-13 March 2015

Inaugurated by

SHRI PRANAB MUKHERJEE
PRESIDENT OF INDIA

At

Rashtrapati Bhavan, New Delhi

## Genesis

In a world where children are often treated as a sink of sermons rather than as a source of ideas, the Children's Creativity Camp was organised by Honey Bee Network to explore the viability of reverse paradigm of learning and sharing. Honey Bee Network tried to explore synergy between privileged and disadvantaged children to solve the problems faced by the economically poor children and their families.

The camp was organised during March 9-10, 2015 at Rashtrapati Bhawan, the President of India's house, during Festival of Innovations (FOIN), March 7-13, 2015, New Delhi). **>2** 

The camp was organised during March 9-10, 2015 at Rashtrapati Bhawan, the President of India's house, during Festival of Innovations (FOIN), March 7-13, 2015, New Delhi).

The workshop was held over two days. The first day involved brainstorming, visiting the displays in the Festival of Innovation exhibition and meeting grassroots innovators, a briefing on field work and then visits to the slums. On the second day the children worked in groups, sketching the problems and presenting their ideas to solve them.

Idea was to encourage innovations by children, for children and their families from the underprivileged section of the society. We had 35 privileged children from the privileged background and equal number of underprivileged children who together tried to seek solutions to societal problems in the slums around Delhi. The privileged children were the winners of IGNITE, which is a national award organized by

National Innovation Foundation, an integral part of the Honey Bee Network. Most of the IGNITE Awardees come from privileged section of the society. This might be just a coincidence or a result of their differential access to information and institutions and not because of their inherently superior cognitive capabilities. This contention was proved right when we saw them working together on similar problems. Children bonded with each other beyond all boundaries of class, caste, creed or age. We learnt so much from them that we want to continue this activity through AASTIIK (Academy for Augmenting Sustainable Technological Inventions, Innovations, and Traditional Knowledge) at SRISTI. In due course of time, AASTIIK should evolve into A Global Centre of excellence for research, education and capacity building in harnessing community innovations and knowledge for the larger social good. We deeply appreciate UNICEF for supporting this cause and look forward to its continued support and encouragement in the future.

<sup>1</sup>The First Festival of Innovation organized by the Honey Bee Network comprised several events at the Rashtrapatri Bhavan( The President of India's House), New Delhi: the 8th biennial awards to National Grassroots Innovators and exhibition, SRISTI Sanman awards to outstanding Traditional Knowledge holders, the 4th Gandhian Young Technological Innovators awards and exhibition, the 2nd Children's Creativity and Co-Creation Camp, exhibitions on medical technical knowledge for social good, sanitation innovations, the Global Roundtable Discussions on Inclusive Innovation, and a National roundtable on Financing of Innovation and more. The President of India, the Honourable Shri Pranab Mukherjee kindly gave away the awards to grassroots innovators on March 7, and addressed the global Roundtable on Inclusive Innovation same day. While concluding the FOIN, he also addressed the bankers and other policy makers in the workshop on Financing of Innovations, March 13, 2015.

<sup>2</sup>Ignite awards organised by National Innovation Foundation in collaboration with Honey Be Network are given every year by Dr A P J Abdul Kalam, former President of India.

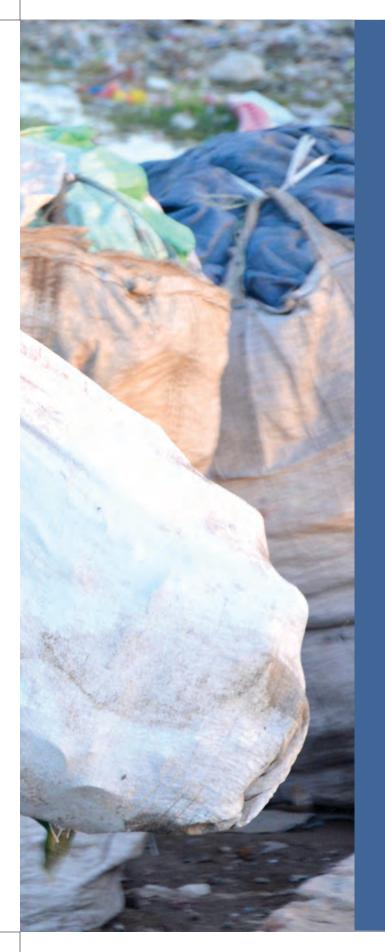
#### What did we do?

- \* We invited some of the winners of IGNITE Awards which is an annual national competition to harness the creative and innovative spirit of school children. The winners are given awards at the hands of The former President of India, Dr APJ Abdul kalam.
- \* We collaborated with local organizations who work with children from the underprivileged sections.

#### What can you do?

- \* You may invite the IGNITE winners.
- \* Invite students from schools, if you plan it during the holidays, more students can get involved.
- \* You may announce an Idea Competition and the winners can be invited to the workshop
- \* You may collaborate with local organizations who work on children related issues





'Listen to the mustn'ts, child. Listen to the don'ts. Listen to the shouldn'ts, the impossibles, the won'ts. Listen to the never haves, then listen close to me... Anything can happen, child. Anything can be.'

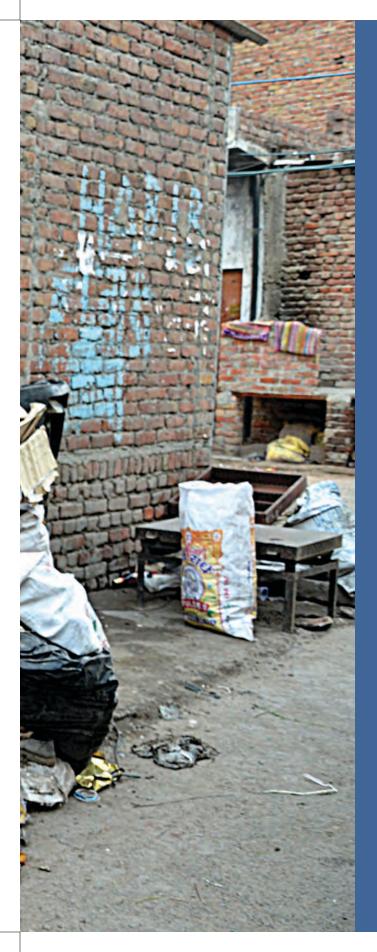
-Shel Silverstein

### Day 1

Children were inspired to search for innovative solutions through interaction with IGNITE winners and grassroots innovators.

They were divided into four groups who went to four slum areas.





## The purpose

To develop an operational framework for empowering children to not only articulate their problems but also to find solutions both individually and collectively 22

We also tried to understand how young children can be a significant part of the national innovation value chain. It was thus an attempt to demonstrate viability of the Inverted Model of Innovation implies that children ideate/innovate; fabricators design and companies/agencies diffuse commercially or socially. Involvement of children in solving their challenges will help us understand micro and macro strategies, which can mobilize the creative potential of children around the world for overcoming persistent social inertia in developing countries.

## Exposure & Motivation

The children tried to address:

a) The challenges faced by themselves or other children in the slums they visit (even if these problems are not articulated explicitly), b) The Challenges that the society (women, families of affected children youth) around them faces and c) Other problems that inhibit the unfolding of their potential.

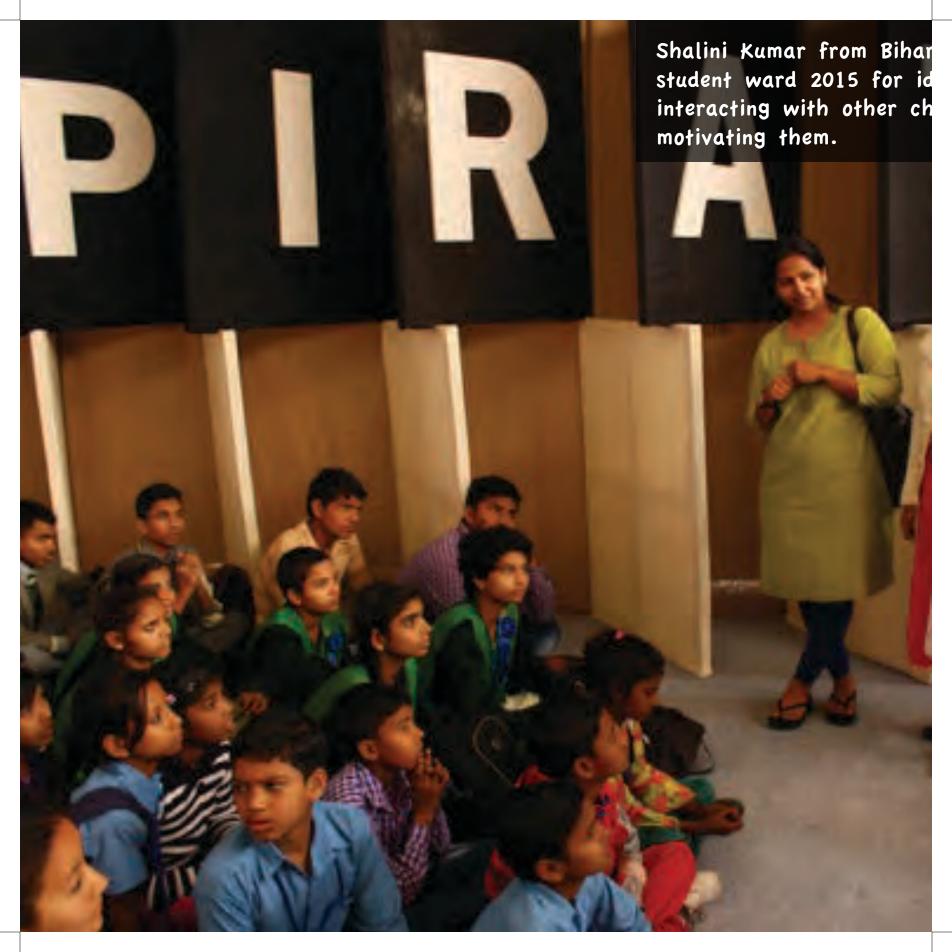
Exposure to some of the prior solutions by grassroots innovators and winners of Ignite awards for innovations by children triggered curiosity of the participants. It also boosted their enthusiasm before engaging with new challenges that were to be faced by them during their field visit. They did not seem to have any anxiety about their ability to spot problem or even find their solution. Will they be able ot find problems and if so, will they be solve it?

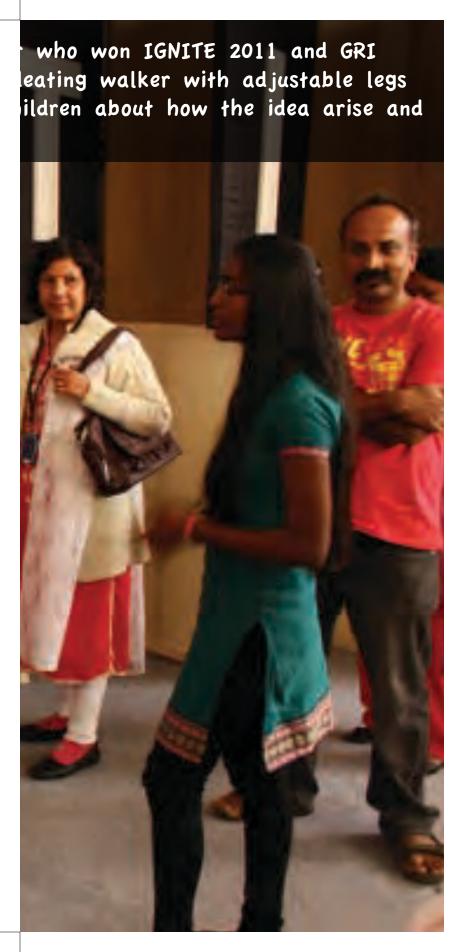




The overall objective of the programme was to develop an operational framework for empowering children to not only articulate their problems but also to find solutions individually and collectively. This programme helped us to understand how young children can be a significant part of the national innovation value chain. The Inverted Model of Innovation implies that children ideate/innovate; fabricators design and companies/agencies diffuse the products so made commercially or socially. Involvement of children in solving the social challenges faced by them and others would help us to understand how to tune micro and macro strategies to mobilise the creative potential of children around the world. This might help in overcoming persistent social inertia in developing and sometimes, even in developed countries.

The workshops aimed at tapping the dormant creative potential of underprivileged children who probably did not have the courage or opportunity or a platform to articulate their ideas. Likewise, those awarded and privileged children and youth who have innovated in some areas were expected come out with creative ideas in other domains as well.





## Interactive session

The session was an attempt to inspire, motivate and encourage children to become communitarians for a better society. Some of the children who got awards shared their journey of innovation.

Sarthak Shukla, a class 8 student from Indirapuram Public School, Ghaziabad, has designed a cylindrical shaped refrigerator with rotatory trays. He had won IGNITE 2014 and Scholar-in Residence Award for Rashtrapati Bhawan 2015.



It had long since come to my attention that people of accomplishment rarely sat back and let things happen to them. They went out and happened to things.

-Leonardo Da Vinci



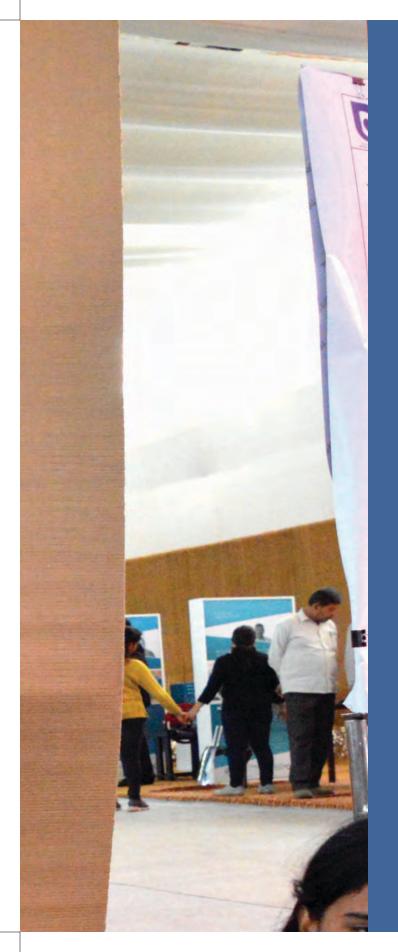
## "LEARNING GIVES CREATIVITY

CREATIVITY LEADS TO THINKING

THINKING PROVIDES KNOWLEDGE

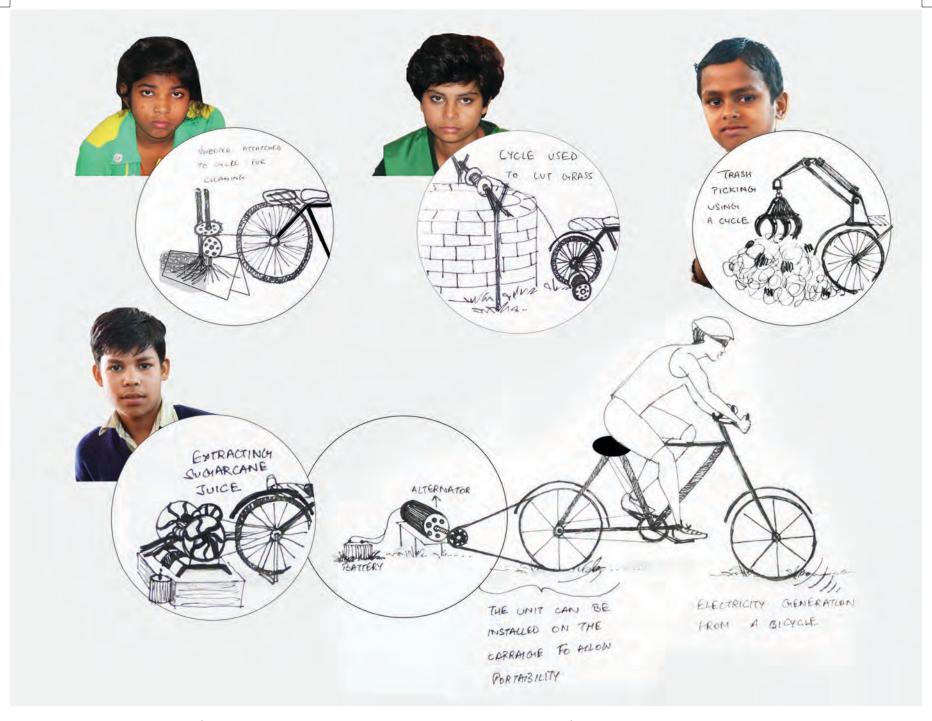
KNOWLEDGE MAKES YOU GREAT"

DR APJ ABDUL KALAM

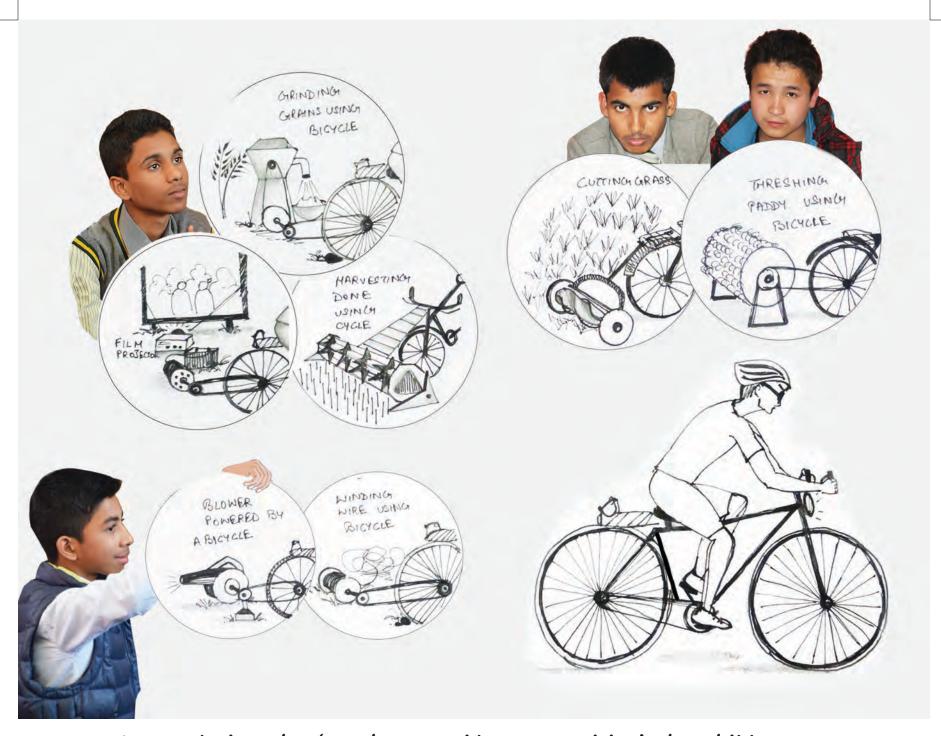


## Brainstorming

Prior to the visits to the slums, the discussion focused on developing creative ideas and gaining confidence in generating solutions. During an 'on the spot idea competition' the children came up with brilliant ideas considering bicycles. Where we normally consider a cycle only as a tool for transportation, these children saw it as a livelihood and multi-functional subsistence tool. What we adults regard as normal, children looked at with very interesting perspectives. Once their curiosity is triggered there is no looking back.



One of the most fascinating features of the idea competition was the perspective of the children. What we adults regard as normal, children look at with different and interesting perspectives. Once their curiosity is triggered there is no looking back.



Hence, during the 'on the spot idea competition' the children came up with brilliant ideas especially considering cycles. Where we normally consider a cycle only as a tool for transportation, these children saw it as a tool of livelihood and subsistence.

Cycle can be used to wind wires –Affan Siddiqui

Cycle can be used to grind grains

Cycle can be used as a plough

Harvesting can be done by a cycle and -Kajal Verma

Cycle can be used for film projection - Ashu Chandra

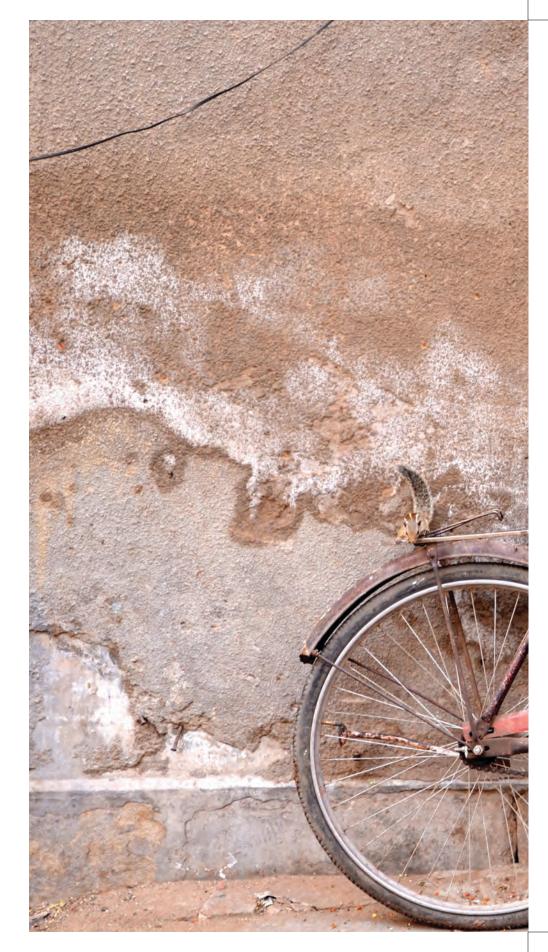
Cycle can be used for cutting grass -Vivek Kumar

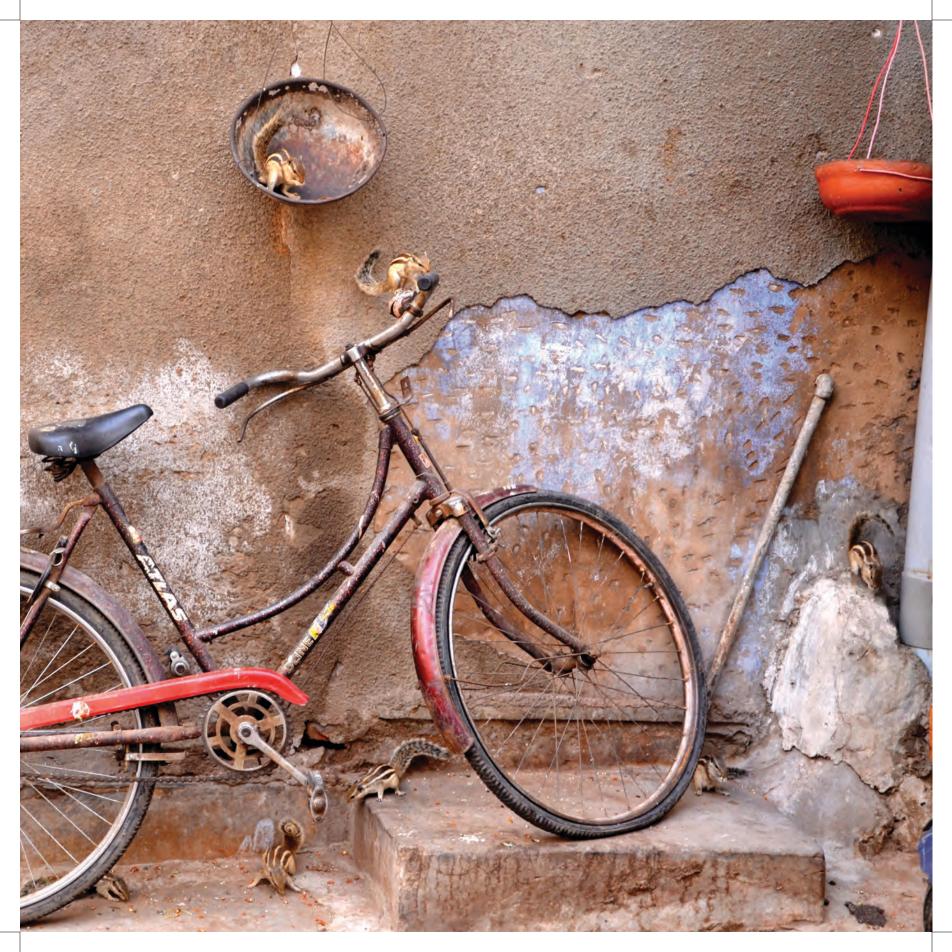
Cycle can be used for thrashing paddy - Mayal Lepcha

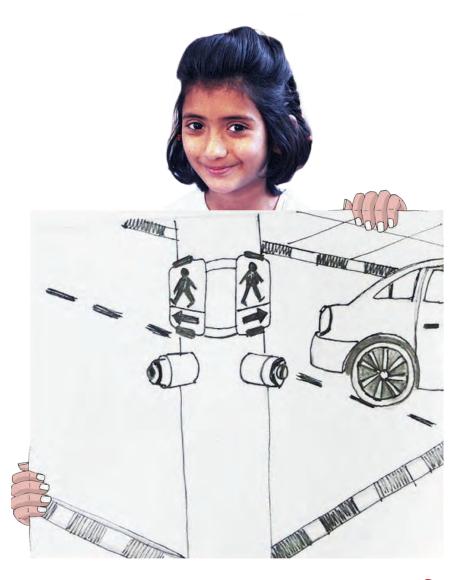
Cycle can be used to break-up soil clods in the field - Abu Sufiyan

Cycle can used to draw water from a well - Richa Kumari

Trash picking machine can be attached to a cycle - Ahmad Raza







## IDEAS

Donate organs to the needy after death; A button on pedestrians crossing poles to stop the traffic.

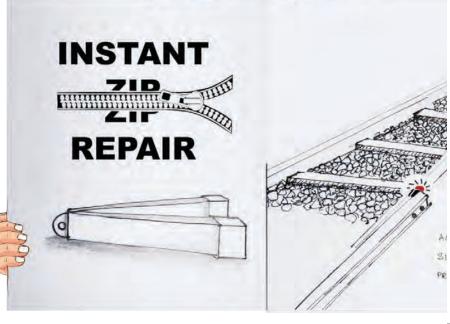
Bhumika, Class 4, Dr. R.P. Sarvodaya Vidyalaya, New Delhi

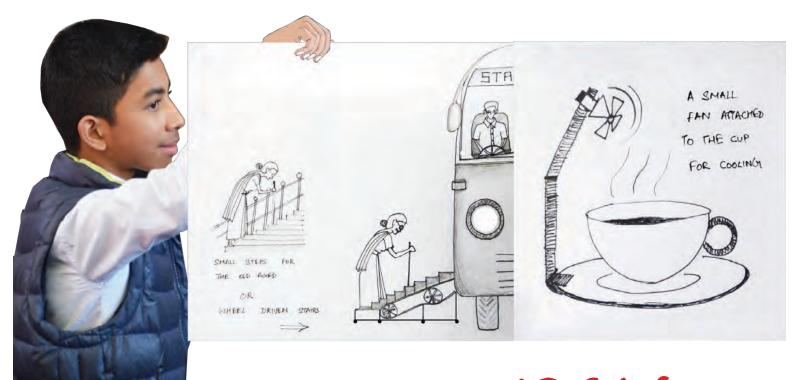
### IDEAS

Alarm for motorman signaling of problems on railway tracks; Instant zip repair; Flat bottom crutches to avoid getting stuck in mud etc.

S. Vinotha, Pursuing B.Sc., Thiruvarur, Tamil Nadu



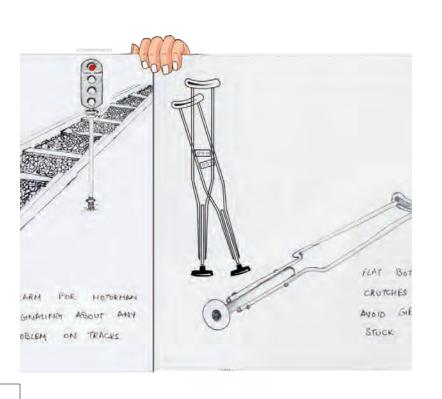


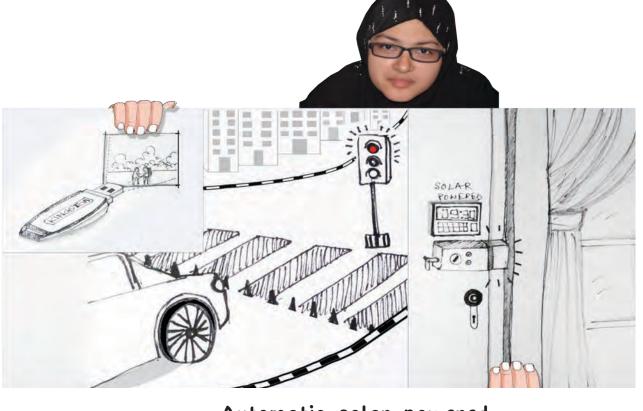


## IDEAS

Bus steps at a low height to aid elderly people and others to get on and off buses; Retracting moving steps, i.e. like an escalator, to aid getting on and off buses; Fan attached to a saucer to cool hot liquid in the cup.

Affan Siddiqui, Class 8, The Indian School, New Delhi





Automatic solar powered school bell; A device which can locate the position of a crime scene.

Sonia Prabhusingh, Damla, Yamunanagar, Haryana



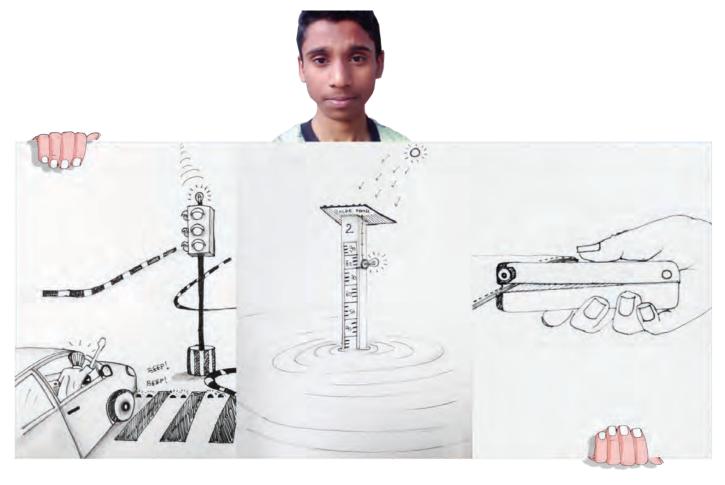
# IDEAS

### IDEAS

Solar powered
self locking door;
Projector pen drive;
System which
stops vehicles
from moving at
red signals.

Laila Banu, Pursuing B.Sc. Thiruvarur, Tamil Nadu





IDEAS

Safety strap inside bag to keep books and other things intact.

Nisha Khan, Class 11, Pardada Pardadi Inter College, Anupshahar, Bulundshahar, Uttar Pradesh(UP)

IDEAS

Mobile sewing machine; Solar powered flood level indicator; Alarm against cars on the zebra crossing when there is a stop signal.

Ashu Chandra, Class 9, Deepalaya School, Kalakji Extension, New Delhi

BAG TO
P BOOKS
L
HER THINGS
N7 ACT





Ahmad Raza, a class 4 student from SDMC Primary PratibhaVidhyalaya, Nizamuddin West, is a very keen child who was always ready to give ideas and at times during the discussions, he would raise hands even before the question. He not only made us laugh, but also bared the fact that one should not shy of sharing or saying whether it's wrong or right. For instance when Chetan Patel from SRISTI asked what everyday problem does he faces?

He said that with the most puzzled face that whatever he sees during the day, he dreams about that in the night too. In his own words,

जो हम दिनमें करते हैं, वही रात में सपने में आता है!

(What ever I during the day, I see it in my dreams at night)

As soon as he said that, the whole tent burst into laughter.

Bhumika,a Class 4 student from, Dr. R.P. Sarvodaya Vidyalaya amazed us all by her empathy towards people suffering from various kinds of handicap. She asked why are the dead people cremated or buried, why can't their organs be donated to the needy. Where we adults adorn to the rituals and norms, we were exasperated by the very fact that they were ready to change and challenge it, for the better of the society.





# Interaction with Grassroots Innovators

The objectives of exposure to grassroots innovators prior to the visit to the slums:

- 1) children would get exposure to the different solutions to real life problems tried by innovators;
- 2) they would gain confidence when they see that other children and common people have developed innovative solutions to everyday problems.



After a very simple briefing on how to conduct the fieldwork and document the problems but also the local innovations, the children were divided into four groups of 14 to 25 children. Each group comprised privileged and underprivileged children, led by SRISTI staff and volunteers from NGOs in Delhi. They visited one of the four slum areas of Delhi viz., Bhalaswa, Yamuna Pustha, Batla House and Kusumpur Pahari to interact with the local communities and children and to observe and study their day to day problems.



Every child got a kit which had an GNITE award book, The Honey Bee Newsletter (English and Hindi verson), a note book, pencil, eraser, sharper, pen, sketchpens and a T-shirt, so that children can be easily traced when they go for fieldwork

#### What did we do?

- \* The IGNITE winners shared their experience, how they sensed an unmet need, ideated and perceived solutions.
- \* We provoked their curiosity and boosted their confidence by showing them innovations done by other students and grassroots innovators.
- \* Professor Gupta asked them the possible other uses of bicycle apart from transportation and carrying loads. This triggered their imagination and they came out with outstanding answers.

#### What can you do?

- \* Invite innovative children who have given solutions to unmet social needs
- \* You may show the IGNITE Award books (available at http://nif.org.in/ignite\_ books to show them the different solutions that students have given
- \* Trigger their imagination by asking them to think of possible uses of common contraptions which is markedly different fro their present use.



### Visit to Slums at

Kusumpur Pahari

Batla House

Bhalswa Lake

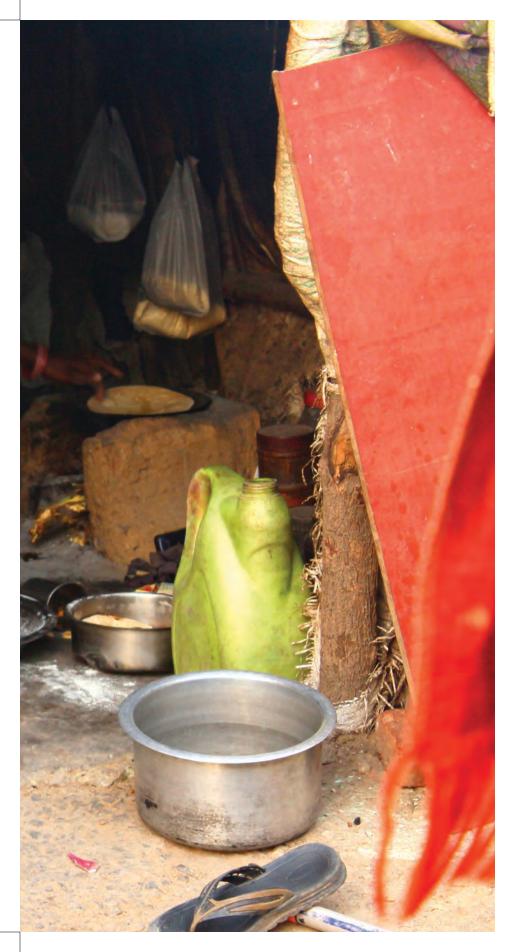
Yamuna Pushta

#### Field Visit

There are about 2.15 million slum dwellers in Delhi (14% of the population), most (70%) of whom come from economically backward districts of Uttar Pradesh and Bihar. Hence poverty, unemployment and deprivation have compelled these people to migrate to slum life in Delhi.

- more than 99% of the households do not have a kitchen
- nearly 97% do not have a toilet,
- 63% have access to running water supply from taps
  - 96% have electricity connection to their slum house
- about two thirds of the households have been living
  - like this for 16 to 30 years. (CGDR, 2011)

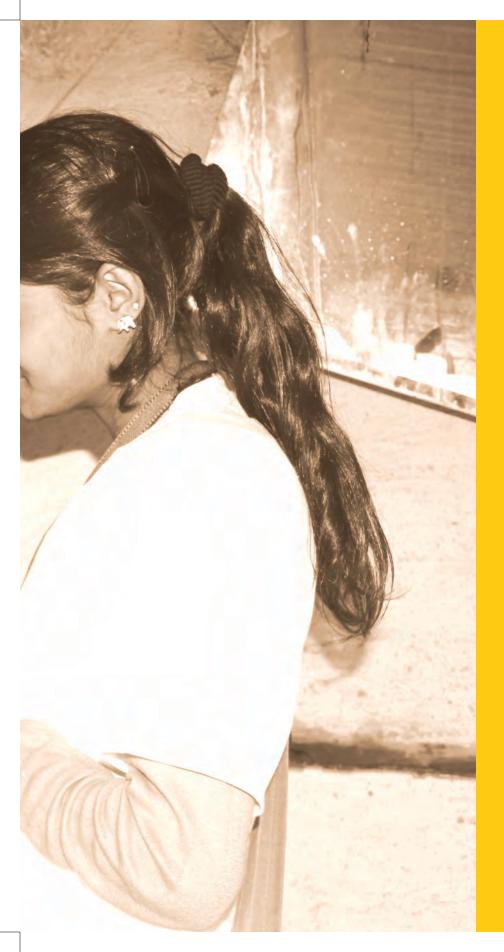




### Group 1

Kusumpur Pahari, in SW Delhi is Delhi's largest slum of about 100,000 residents. Many of the slum dwellers are servants, drivers, gardeners, sweepers who work for the wealthy people living in nearby Vasant Vihar.





### Members

Manisha Chauhan

Nisha Chauhan

Iqra Khan

Sufiyan

Noor Mohammad

Nazim Ali

Nisha Khan

Rahila Sultana

Affan Siddiqui

Liyangsung Lepcha

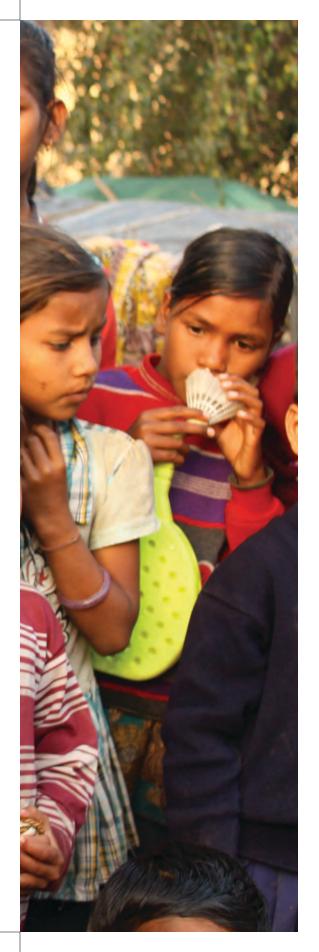
Shalini Kumar

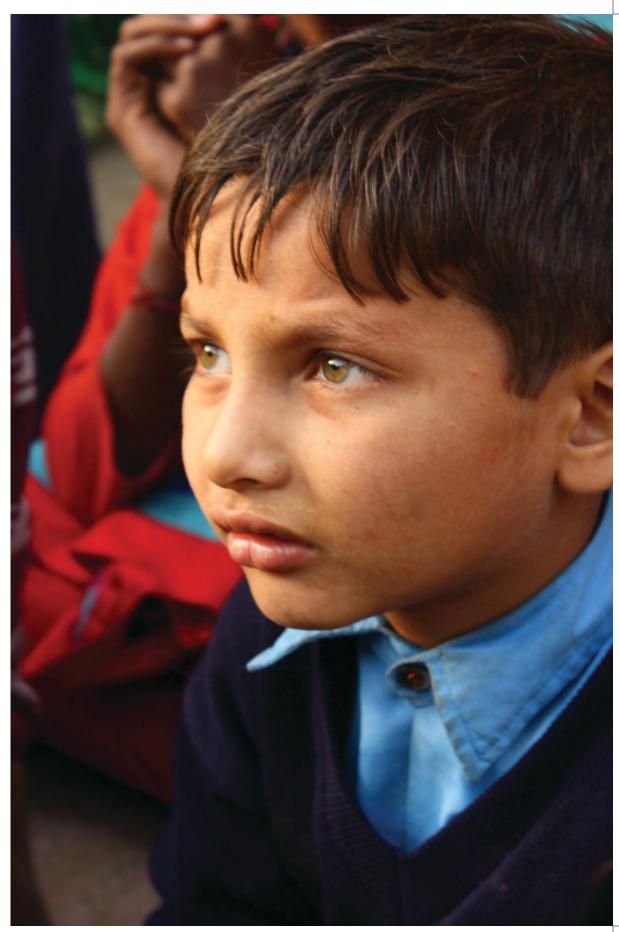
Vinodha

Laila Banu

Aman S. Masih



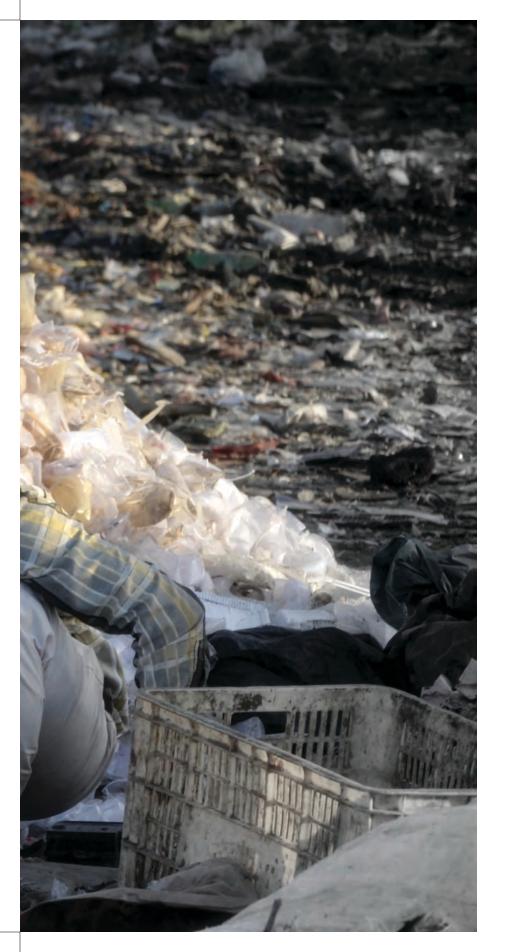




## Problems sensed

Water shortage, garbage disposal (where wet and dry waste were not segregated), no proper playground for children to play. Pigs and children roamed around in the same playing ground. There was only one municipal water connection which provided water in the slum area and people had to wait in the long queues.





### Group 2

Bhalaswa is low income housing colony built on landfill of Bhalaswa Horsehoe Lake, northwest Delhi





### Members

Naushad Ali

Ali Mohammad

Ahmad Raza

Sheeren Sheikh

Neeshu Sharma

Kajal Varma

Sakib Mohammad

rfan Khan

Imrana Zakir

Mohini Singh

Misaba Kayamuddin

Alam Ansari

Rachana Rajan

Priyansh Nagpal

Ashu Chandra

Bhaskar Jha

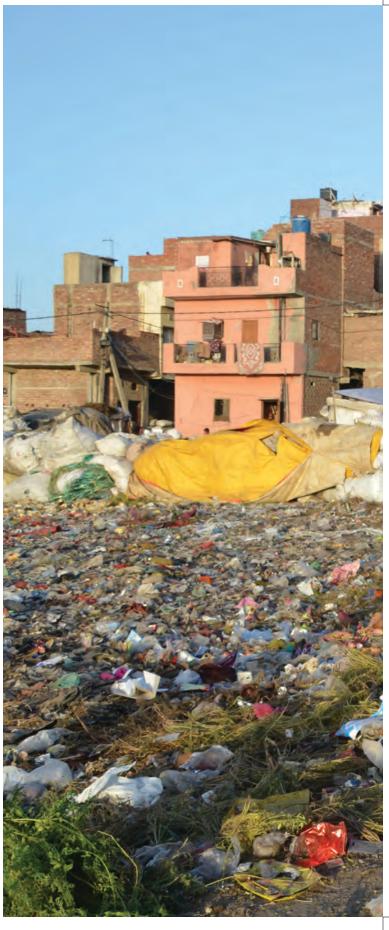
Preeti Kumar

Sony

Rafi Khan

Aman Sharma







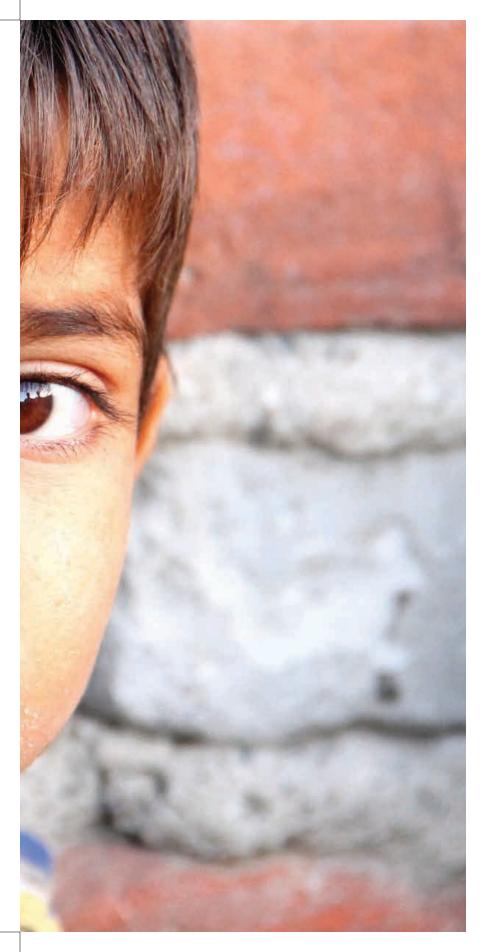




# Problems sensed

The huge garbage dumps lying in the area! They were making the area uninhabitable and the atmosphere full of foul smell. The other major problem was of the teachers in government schools who didn't teach properly and were spending their time elsewhere instead of teaching. Girls were not allowed to study and there was a shortage of safe drinking water. People did not follow the rules at red light and railway tracks.





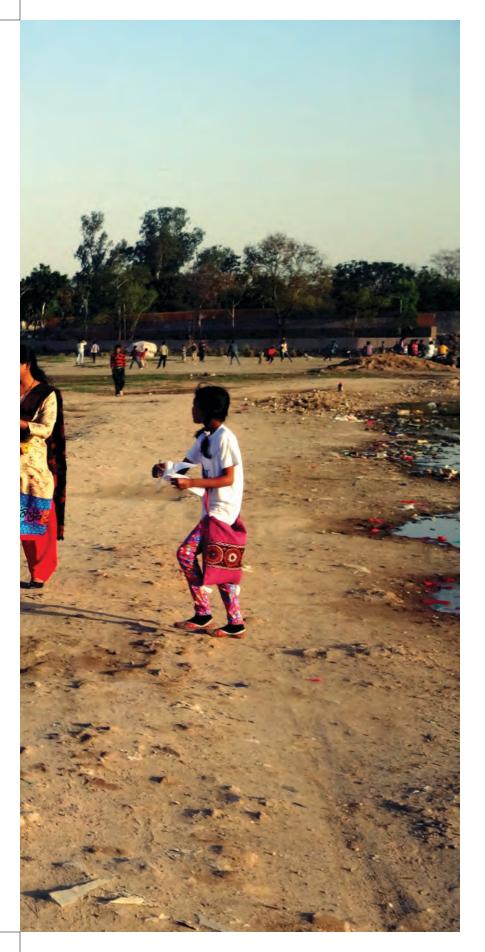
### Group 3

Batla House, Jamia Nagar, Jamuna in SE Delhi, is close to the Yamuna River and is inhabited by mainly The Muslim community









### Members

Priyanka

Richa Chowdhary

Manshi Chauhan

Kiran Devi

Jyoti Jainwal

Gunjan Jainwal

Tanu

Anurag Singh

Vivek Kumar

Nisha Sharma

Barkha

Anjali Rena

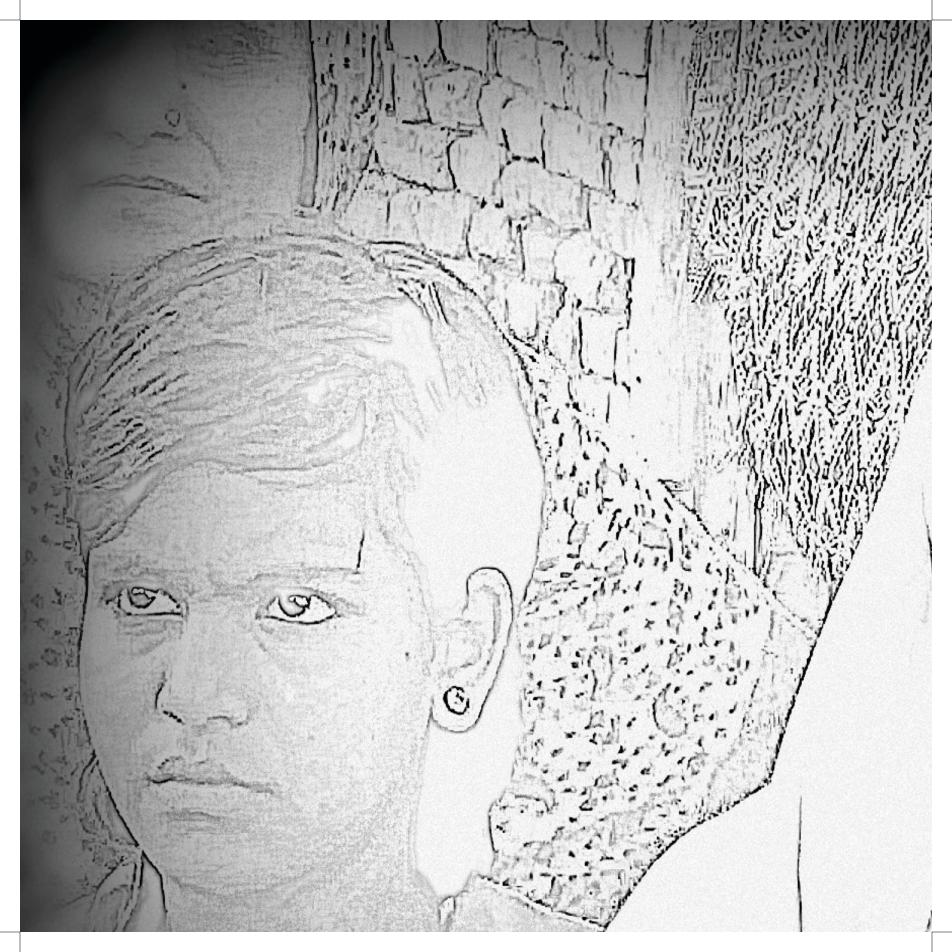
Fiza

Sara V Skaria

Aswaty George

Soring lepcha

Mayal Lepcha

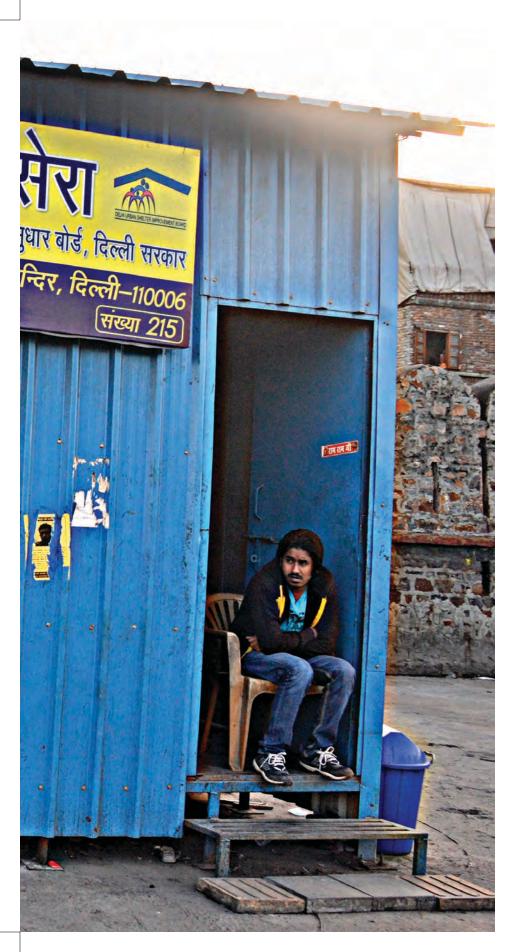




# Problems sensed

The temporary houses were built from scrap, hay and other available material. They had to be re-made after every rainy season. The security was a problem. Stagnant and dirty water surrounded the whole area. No proper toilets existed so people practiced open defecation. Parents were very keen to teach their children but no proper schools were available. Safe drinking water was not available, garbage heaps around the area lead to foul smell. Electric supply was erratic.





Yamuna Pushta on the banks of the Yamuna River, north of Old Delhi. This area has been subject to slum clearances, the last being in 2004 in preparation for the Commonwealth Games.

### Members

Daksh Kumar Aayush Prakash Shewta Rani Aditi Vanshika Sharma Nandini Kumari

Saniya

Shabnam

Bhumika Thakur

Bhumi Kanojiya

Khusboo Kumari

Aachal

Parul prakash

Anjali dayal

Vishal yadav

Vishal Sharma

Rajat Thakur

Mohit

Nikhil rathor

Ankur

Karan Arya

Rahul Arya

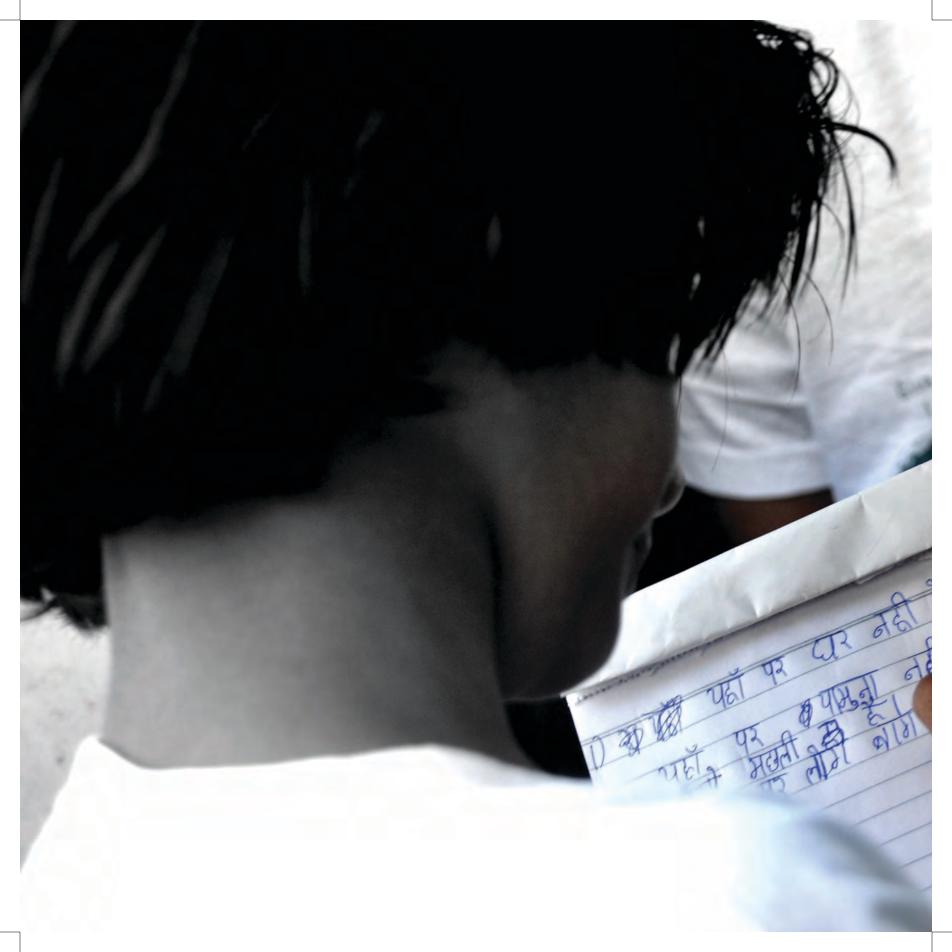
Omkar Pal

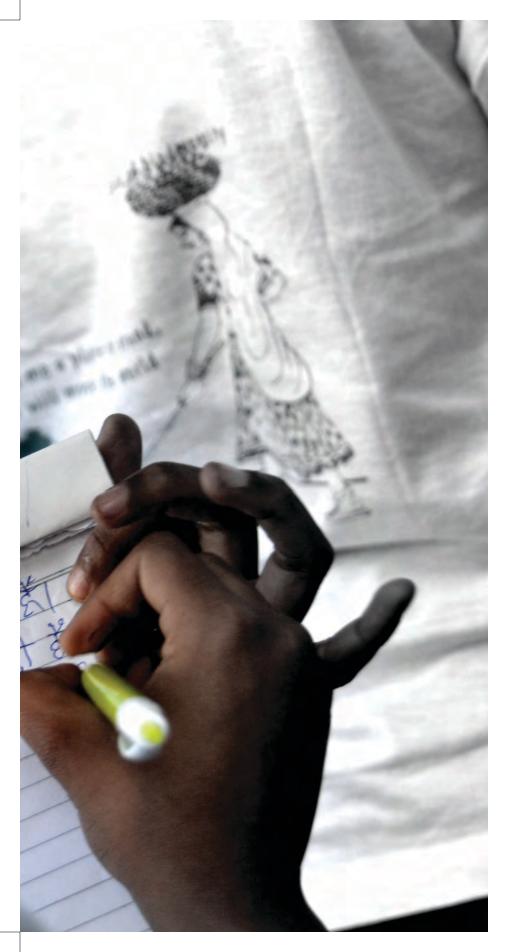
Ritika Rajoriya

Gungun Rajoriya









A participant notes

'यहाँ पर घर नहीं हैं'

(Here there is no home)







# Problems sensed

Sanitation was improper and toilets were dirty. Safe drinking water was not available. The area on the bank of the Yamuna River was filthy and dirty. TB patients living there had to bear with it. People were not getting proper electricity supply. Many lacked proper clothing.

### What did we do?

- \* We collaborated with local organizations who work in slum areas or with children from the underprivileged sections to identify four slum locations.
- \* Each team was accompanied by our team of volunteers
- \* The children had their lunch before leaving.
- \* Water, hand sanitizer, napkins and first aid boxes were provided to all the teams
- \* The participants were given same coloured T-shirts so that communities perception is sanitized to some extent and also the children are easily traceable

### What can you do?

- \* Collaborate with local organizations who work with the underprivileged sections
- Identify locations yourself if you are doing the workshop in the same city where you are based
- \* It is advisable that kids follow proper hygeine to avoid any kind of infection
- \* As the group has both privileged and underprivileged children, it is better that they are given some kind of uniform. Volunteers should be careful not to use any kind of discrimatory language or behavior

### Day 2

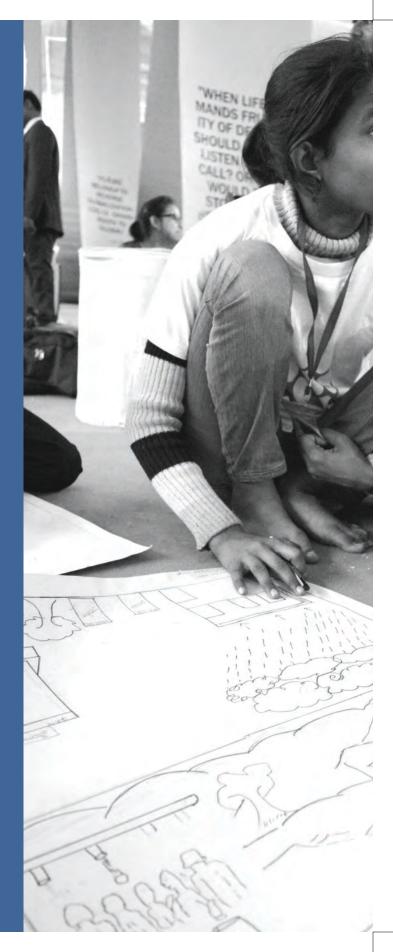
Children worked in groups in exhibition tent, sketching the problems and presenting their ideas to solve them.

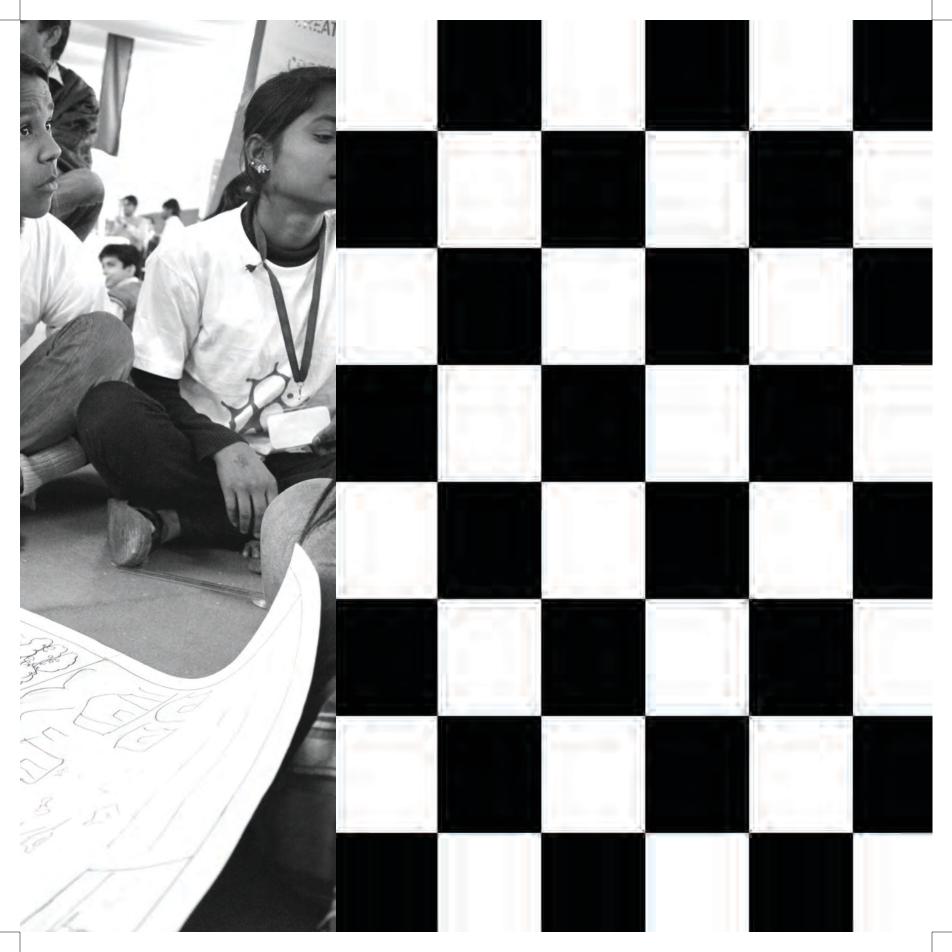
The wet garbage then can be used to make manure while dry garbage can be further segregated and materials such as clothes pieces in it can be used to make soft toys for children. 22

Manisha, class 9, from Kusumpur Pahari and Liyangsung Lepcha from Sikkim

Problem: one of the main problems in Kusumpur Pahari slums was of garbage disposal. Wet and dry garbage were not segregated.

Solution: Manisha and Liyangsung both found a solution to the problem; they made a sketch showing proper disposal of garbage by segregating wet and dry garbage, from the source itself





Nisha Chauhan, class 11 from Anupshahar, UP

Problem: Water shortage in the area

Solution: Houses should be made in such a way that rain water can be harvested so that more water is available for daily use.

Iqra Khan class 5, SDMC primary school, Nizamuddin West and Abu Sufiyan, Madarsa Jamia Arabia, Madina Masjid

Problem: There was no playing area as such for children, garbage was collected in the playground.

Sufiyan observed that people in Kusumpur Pahari live in small houses with neither electricity nor water connections, some children go to school while others stay at home and help their parents.

Solution: A clean area for children to play should be made with a dustbin at the corner so that garbage is collected in it.

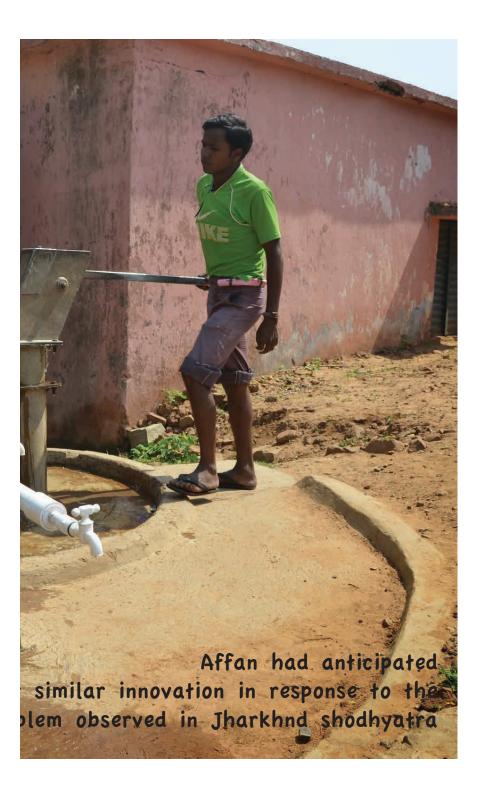
Sufiyan suggested that big houses should be made for the people living in Kusumpur Pahari. Electricity and water connections should be provided to all. All children should be made to go school.

Nisha Khan, class 11, and Rahila Sultana, class 9, both from Anupshahar

Problem: There was small open area where at one corner garbage was disposed and pigs were roaming around in the playground.

Solution: The play area for children can be segre-





gated so that they can have a clean playing area and garbage can be disposed of in the dust bin. Pigs that were roaming around in the playground can be kept separate in a fenced area.

Affan Siddiqui, class 9, The Indian School, Josip Broz Tito Marg, New Delhi, observed that normally public water taps have only one opening to draw water and people have to wait in a long queue for their turn. So he suggested an innovative approach to water supply by attaching pipes to the main tap like a 'tap-root system, so that everyone is able to receive water. He also suggested knee caps for people who cannot walk and do not have the proper equipment for walking and have to drag their bodies. He proposed the provision of cheap portable sewing machines to slum families for making clothes for underprivileged children. A small portable sewing machine should be made so that these people can stitch clothes easily. Sufiyan suggested that big houses should be made for the people living in Kusumpur Pahari. Electricity and water connections should be provided to all. All children should be made to go school. Iqra Khan class 5, SDMC primary school, Nizamuddin West and Abu Sufiyan, Madarsa Jamia Arabia, Madina Masjid

# Ideas of Children from Kusumpur Pahari

How to improve the use of a matchstick and other ideas

Kavita and Khushi: apply inflammable substance to both ends

Sohail: apply flammable substance again after using Golu: break the matchstick and use it efficiently

#### Other ideas:

Sohail and Golu: a broom should be modified so that by one end we can wipe and from other we can sweep.

Multiple uses of cycle:

Durgesh: cycle can be used for grinding grain, as a chaff

A multipurpose box can be made that can be transformed into a plank which can be used to cross the gutter and when opened can be used as a ladder to climb trees. When closed, it becomes a box. 22

Vinodha observed while interacting with the children in Kusumpur Pahari, that their houses had low ceiling. It might be a problem when children grow taller than their parents.

Solution: Houses in slums should be constructed in such a way that their height can be adjusted when required







Problem: The hill of dirt and waste in Bhalaswa is very dangerous. Students have died after playing there.

Solution: The waste could be converted into some useful material or else into gas which could be used for power generation or making fertilizers for plants. **22** 

Naushad Ali, 10th NIOS, Jama Masjid

Problem: Waste in Bhalaswa.

Solution: Small waste picking machine should be used by all people living in the slum.

Ali Mahummad, class five, SDMC primary school, Nizamuddin West highlighted the fact that children who accidently enter the garbage heap have died of asphyxiation. He suggested that some kind of safety gear should be available if children are employed (actually, they should never be), and proper barricading of the area to stop further accidents.





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Ahmad Raza, an extremely cheerful class four student, from SDMC Primary Pratibha Vidhyalaya, Nizamuddin West, Delhi came up with the idea of collecting disposable cups. A box normally holds 150 cups; Raza's idea can take up to 750.

Nishu Sharma, class nine, Anupshahar

Problem: Gutter contains a lot of waste in Bhalaswa. It is also not cleaned properly.

Solution: Waste can be collected directly from gutter and disposed of.

Sheeren Shekh, class five, SDMC primary school, Nizamuddin West

Problem: Children do not wash hands before eating lunch in schools.

Solution- Have a printed sticker inside and outside the lunch box which states "Wash your hands before having lunch". It will remind the children to wash their hands.

Preeti Kumar, a class 11 student from Katha Lab School, Sarvodaya Enclave, Sri Aurobindo Marg, New Delhi felt that because of dirty hands, a lot of diseases are spread. So, she came up with six inspiring and fun steps to keep hands clean.

Bhaskhar Jha, Deepalaya Kalkaji Extension, Delhi He is in class 8. His father is an engineer, mother a housewife. He has one sister. He hails from Bihar and resides in Tughlaqabad village, Delhi.

The group together gave following recommendations to improve conditions in Bhalaswa:

Problem: In cities the vehicles create a lot of pollution. Solution: Solar system should be used in the vehicles to prevent pollution.

Problem: During rainy days bikes slip and people are injured. Solution: Something should be placed in the tyre so that they do not slip in the rainy season.

Problem: Used water from industries leads to a foul smell in the surrounding areas

Solution- Effluents should be treated properly before discharge

Solutions: Schools should have regular inspections.

Self study is very important.

School needs centralized water purification system.

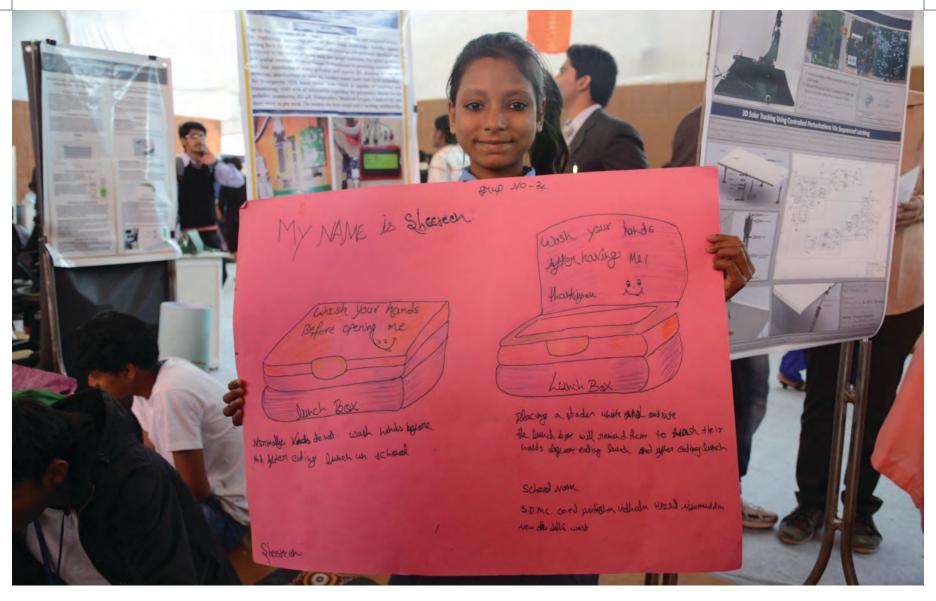
Non performing schools should be closed and the students studying there should be shifted somewhere else.

Each and every school needs a complaint box along with a centralized punching system.

Alam Hansari, Nur Was Public School near, Jama Masjid

He is a class two student. His father is an auto driver. He has nine siblings. Alam resides in Kaputar Market of Delhi and hails from Bihar.

Problems:: No study happens in the school, after taking attendance the teacher goes to the office and takes a rest. Teachers also collect money from students for different purposes.



Only one teacher is available for many students. Mid-day meal given to them is often of bad quality and sometimes causes stomach problems. Safe drinking water is also a problem in government schools.

**66** Problems identified in Bhalaswa by Bhaskhar Jha, class 8

- Safe drinking water is not available
- Play ground is not proper
- Tanker water is impure with foul smell
- Sewage has no drainage system.
- There is no street lighting
- No security and cleanliness
- No proper school

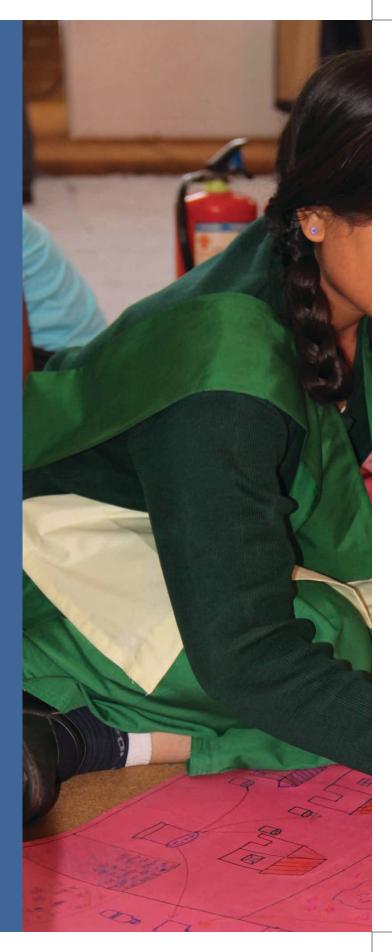
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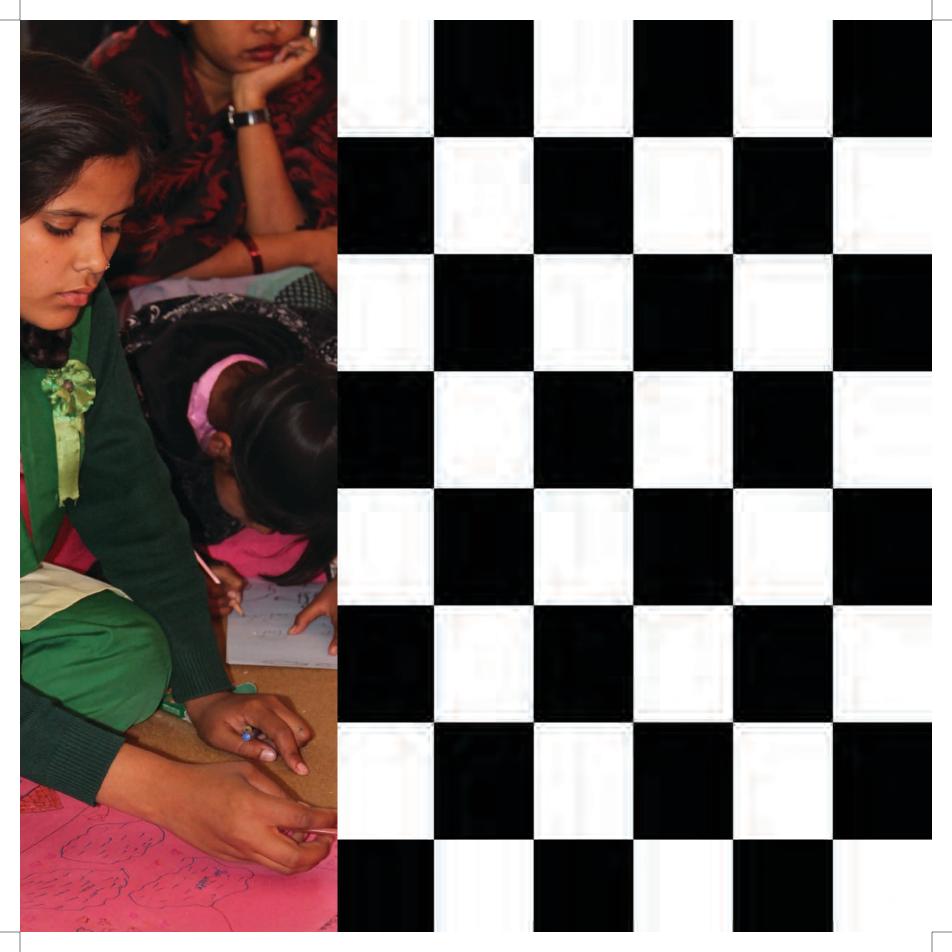
Solar panel works with sunlight. Can somehow moonlight be put to some use like that?

-Anurag Singh ??

Manshi Chauhan, a student of class eleven, from Pardada Pardadi Inter College, Anupshahar, Bulandshahar (UP), realised that a lot of problems are caused by plastic waste. So, she suggested re-cycling plastic material to make plastic slippers

Soring, a class five student from Sikkim, suggested that a Community Water Filter should be installed, so that each and every household does not require an individual water filter.









Vivek Kumar, a class eight student from Deepalya School, Kalkaji Extension, New Delhi tried to find solutions for all the problems faced by slum communities. For counteracting load shedding he suggested the use of solar and wind panels; for water scarcity he suggested to store rain water and utilise it. For defecation and sanitation problems he suggested that communities should take responsibility by forming committees, instead of always relying on help from outside.

Anjali Rena, Rashtrapati Bhavan Problems:

There is water scarcity.

There are no good schools in the locality.

Solutions:

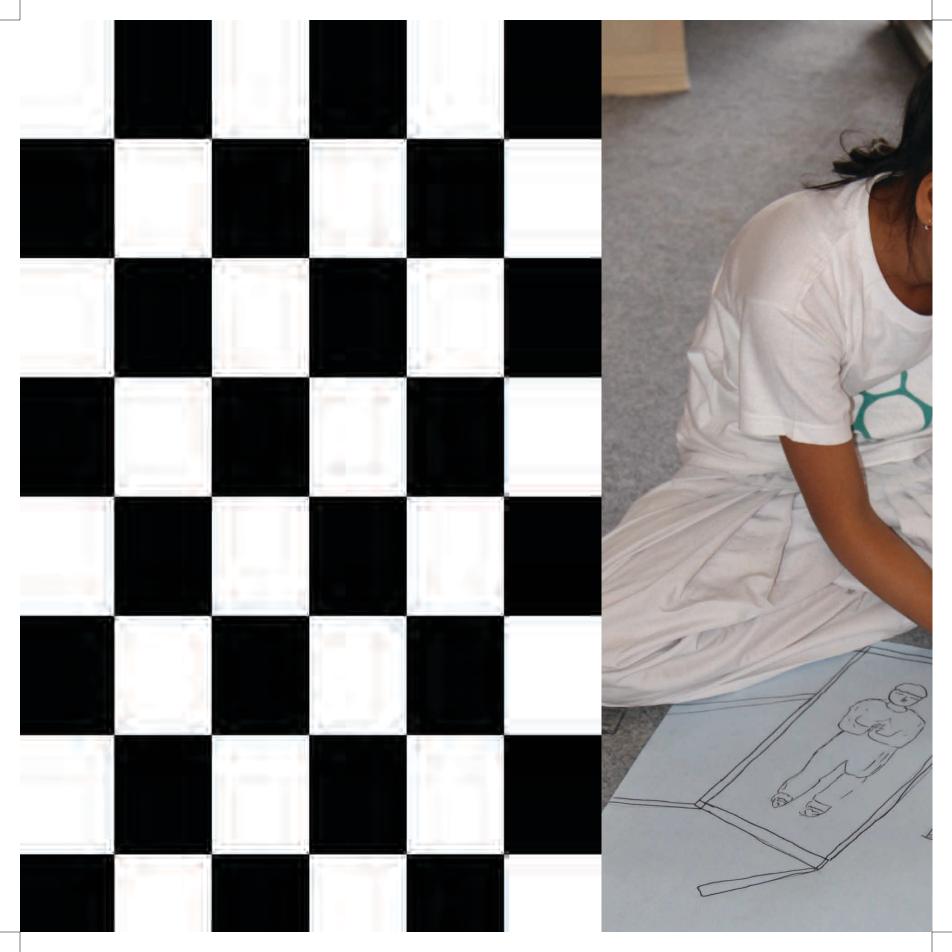
Each house should have two dustbins, one for the food waste and the other for the plastic waste.

The food waste can be utilised as fertilizer and the plastic waste can be recycled and used.

Anurag Singh, class eight student from Deepalaya School, Kalkaji Extension, New Delhi came up with an interesting idea to generate electricity through walking trousers and use of solar panels.

Richa Kumari, class nine, from Pardada Pardadi Inter College, Anupshahar, Bulandshahar (UP

Problem: There is a lot of stagnant and dirty water in Batla House which paves way for water borne diseases. Solution: A Waste Water Treatment Plant to be built up in the locality, where the water can be re-supplied to the locality after its purification.





18,000 unidentified bodies were found on the streets of Delhi from 2009 to 2014.

(Asian Age and New York Times study)

The visit to Yamuna Pushta was led by Dinesh Kumar. He works for Aman Biradari which runs the Dil Se Campaign for children who live and work on the streets. They also run a health recovery shelter and mobile street medicine clinic in Yamuna Pushta for male patients and for female patients in Jama Masjid. Founded in August 2013, by January 2015 100 patients a night were being treated, including 25 tuberculosis patients, four HIV and 20 physically injured patients. Trained medical staff offer medical and referral services, food and counselling support offered to help reintegration with families or employment. Ref: www.forum/m/%23!topic/aman-biradari-friends/bt\_yZzTk0r4

The children found that there were 26 beds in two different tents, one specialising in TB patients brought by the local police and the people of Delhi.

Parul Prakash, class 12; Ankur, class 8; Anjali Dayal, class 6; Ayush Prakash, class 4; Karan Arya, class 6; Rahul Arya, class 9; Rajat Thakur, class 7; Omkar Pal, class 9 from Dr. R P Sarvodaya Vidyalaya, President Estate, New Delhi, suggested the idea of separate water supplies in shelters for patients with infectious and non infectious diseases.

By oversight, the shelters were built separately for two kinds of the patients but there was a common water point for them. It is this anomaly which led the group of children to ask, will not the infection spread if the patients might interact at common water point? Hence, each shelter ought to have separate water point.

### Suggestions

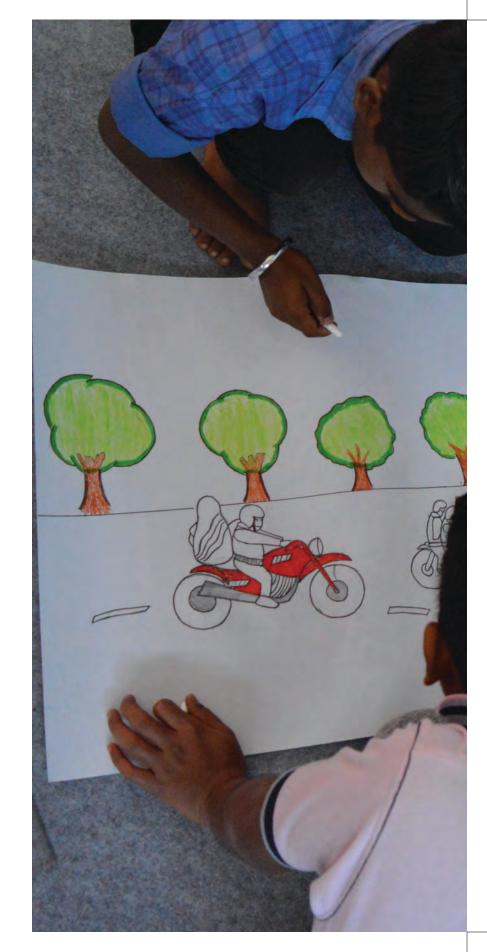
Solar panels should be installed on the tents to provide sufficient electricity.

Sanitary place and the toilet should be cleaned once a day and to be opened for all.

A pure drinking water supply should be provided to all residents and patients.

The surrounding area and the bank of the Yamuna River should be cleaned.

Walkers should be provided to patients with fractures. Can't the rich people and other Delhi residential people give their old clothes and foods to these people?





## 66

- Why doesn't the government take any action against poverty?
- Why are sick people discarded by society?
- Why doesn't the government start their NGO, if the NGO can do this type of good work?
- Why is the government not taking are of poor people and giving them resources?
- How can we help these poor sick patients?
- Why is the government not taking care of the Yamuna river, why is this area is so dirty where the patients were also living? **)**

<sup>-</sup> The children observed the surrounding area and the tents and found bundles of problems and questions which they asked to the head of the shelter and the doctor.

## What did we do?

- \* Children were encourage to discuss their ideas amongst themselves
- \* Each team was mentored by our team of volunteers
- \*They were given the liberty to expres in whichever language they wanted, in whichever media they wanted
- \*They were encourage to work in teams but also given the freedom to work individually
- \*They were asked to present their ideas in front of others.

  The audience was encouraged to give feedbacks

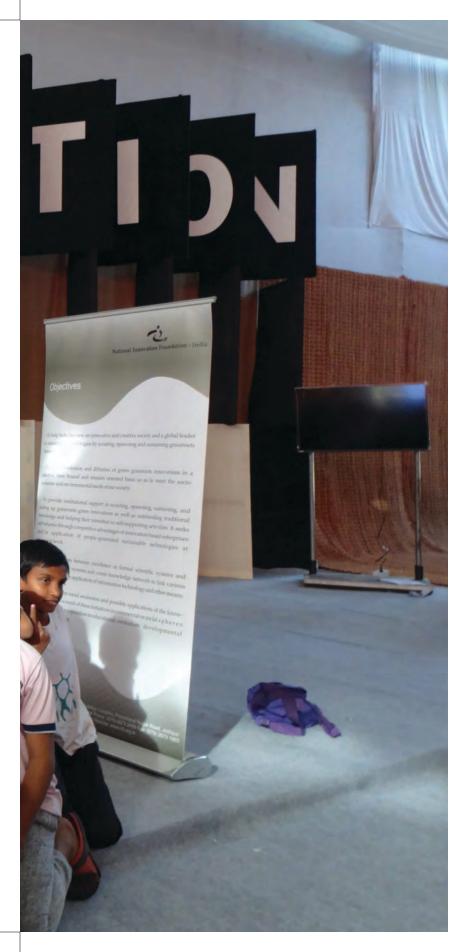
# What can you do?

- \* Don't insist that they come out with ideas similar to yours!
- \* Don't dismiss seemingly weird ideas, take them as figment of their imagination
- \* Do appreciate the ideas that surprise you



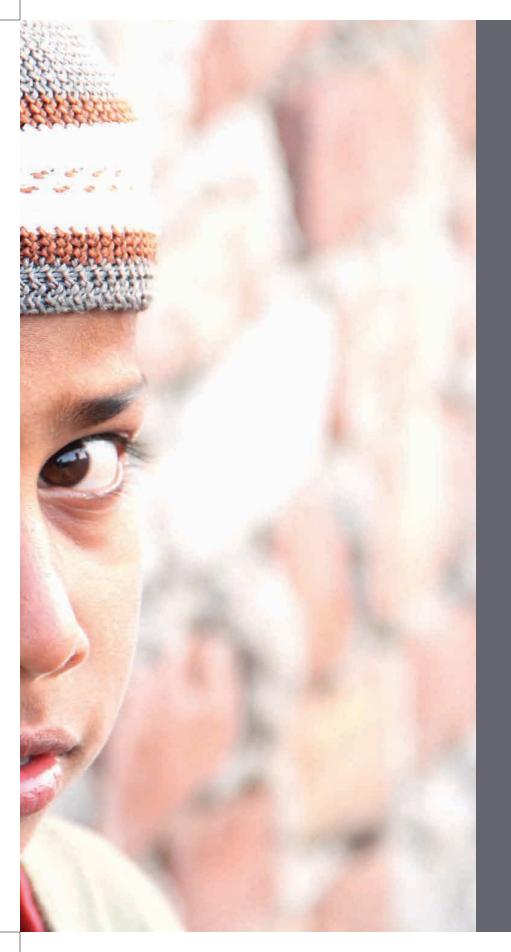




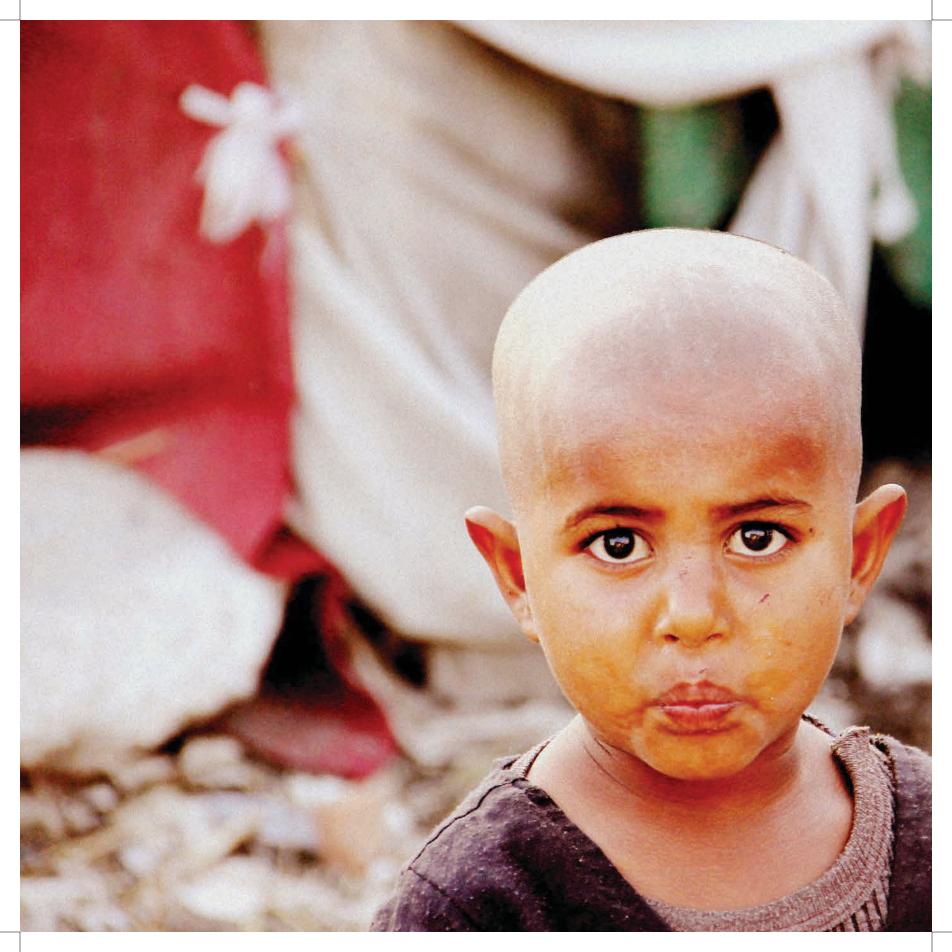


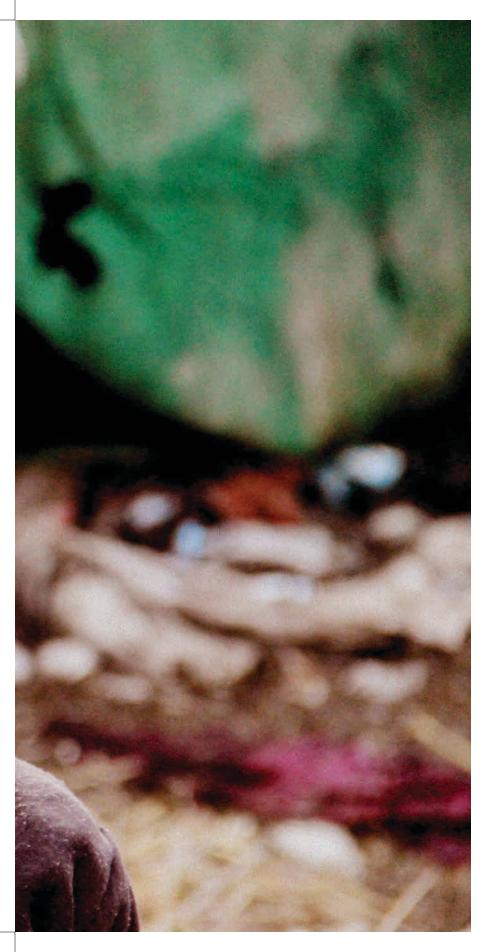
The children were asked to decipher the meaning of the ideas of children who won IGNITE 2014 which was followed by felicitation of children by Prof. Gupta and closing of the workshop.





'It's the children the world almost breaks who grow up to save it'
-Frank Warren





# Lessons

Children were at liberty to articulate their ideas in words or graphically and in any language. Graphic presentation of ideas brought precision and also in many cases, the diversity of the children's idea. Children tend to describe much less in the narrative form than in the graphic form. **22** 

Close to 80 children, including a handful of experienced young innovators (who were at Rashtrapati Bhavan to collect Grassroots innovation Awards) were given orientation on the first day in generating innovative ideas, building on their innate capacity to identify problems and find relevant solutions. On both the days, they learnt the importance of presenting and critiquing ideas to stimulate production of better quality solutions and to define problems more accurately. They learnt the importance of empathy and imagination for generating innovative solutions, and to have confidence in their ability to challenge the status quo. An example is the idea of a separate water supply in shelters for patients with infectious and non-infectious diseases which was so obvious to the children but not perhaps to the developers of the shelters.

We learnt that exposure to societal problems first hand and some prior solutions by ordinary children and grassroots innovators can trigger empathy and fertilize imagination of children for generating innovative solutions in a very limited time period. It is important to make them realize their potential of finding solutions, boosting their confidence by giving them simpler problems to solve. Once they are confident that they can innovate and their ideas are appreciated they can come out with outstanding solutions to actual real life problems.

We could see how peer pressure or simply coaxing worked for some while others were probably born ideators. When Professor Anil Gupta asked them to imagine uses of bicycle other than for transportation or carrying loads, more than a dozen alternative uses of a cycle were triggered in less than five minutes. This showed that just a

trigger in the form of an earnest question could unfold the innovative and empathetic potential of children. We could also see that the region or the background that the children came from influenced their idea of potential uses. For example for Mayal Lepcha, who hails from Sikkim, threshing rice by bicycle came naturally while another Abu Sufiyan from a slum area in Delhi where labourers and people who do odd or menial jobs live, gave the idea of breaking mud clods with it.

We realized that Initiatives for institutional policy changes can indeed be designed based on children's ideas. After all, the idea of a separate water supply in shelters for patients with infectious and non-infectious diseases was so obvious to children like Parul Prakash, class 12; Ankur, class 8; Anjali Dayal, class 6; Ayush Prakash, class 4; Karan Arya, class 6; Rahul Arya, class 9; Rajat Thakur, class 7; Omkar Pal, class 9; while the much more senior designer and development agents had ignored it.

We saw some very simple frugal solutions apt for contemporary problems like effective waste management. Ahmad Raza, a class 4 student designed instinctively such a simple solution to stacking plastic cups that one wonders why did it take so long. His solution makes collation, packing and transportation far easier and space use more efficient than available solutions.

We are happy to see that the next generation is much more compassionate and impatient than us. Things like organ donation for saving lives of affected people has still not found wide acceptance amongst our generation. But, Bhumika, a class 4 student suggested that everybody should contribute his organs and bodies for others rather than being buried or cremated.



We felt that if we could mobilize children of the world for solving the persistent problems around us, the world would change at a faster space because 'impossible' is often not the word that they reckon with. They are much more perceptive of other's problems and feelings, they are not victims of "learned helplessness", they are far more impatient to bear with idiosyncrasies and etiquettes of the 'patient and civilized' world. They are like little maverick matchsticks waiting to be ignited with purpose of doing good, being good, being just, being innovative. **22** 













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