

## **“Here I am for the Change” – The Clean Dhanbad Mission of TOWASO**

ISMites are all set for revolution in Waste Management by their innovative project TOWASO. It stands for Total Waste Management Solution. The brain behind the success of TOWASO is Saurabh Kumar, M.Tech, Environmental Engineering, 2018 and his team.

The budding talent gave a thought of to relieve the Mother Nature. The rate at which the natural resources are being depleted is really a matter of concern. The best way of reduce the rate of depletion is reuse and recycle. With this tip off, the budding environmentalists started their pilot project on waste management.

### **Pilot Project**

The project started on February, 2016 at Jaiprakash Municipal area of Dhanbad selecting 300 household. The team initiated door to door waste collection from individual household and then utilizing the waste product for following jobs-

- 1) to produce bio-gas,
- 2) reduce landfilling
- 3) Leftover manure is used to cultivate mushrooms
- 4) Construction of plastic road.

After the great success of this pilot project, the innovators turned entrepreneurs. Their success story was published on front of national Dailies and they also received awards from Government and private bodies for their innovative technologies developed for waste management.

### **Standard Operating Procedure of TOWASO**

TOWASO is based on waste segregation. The three different categories of waste viz. biodegradable, recyclable and hazardous are separately put in three bins by users. Then these waste is being collected by hired workers to the Plant for further processing. The Rag pickers are also encouraged for waste collection. This will help the informal sector of waste management.



**Fig-1**



**Fig-2**

**Fig 1 & 2- Volunteers busy collecting waste door to door**

### **Major Achievements so far**

The innovators of TOWASO have served Dhanbad and Chas Municipal Corporation of Jharkhand. In their journey of two years, the following are their major achievements -

- 1) Chas Municipal Corporation has succeeded in securing top ranks for the cleanest city in East India and also reaching to 19<sup>th</sup> rank in all over India.
- 2) First ever plastic road under Municipal area of Jharkhand
- 3) Leading landfill reclamation in East India



**Fig-3**

Fig-3 & Fig 4 A tank of full of biogas generated from waste and A plastic road made from the waste under Chas Municipal area of Jharkhand



**Fig – 5**

**Fig-6**

Fig 5 & 6- Landfilling by waste and effect after efforts by TOWASO in cleaning landfilling

### **Awards received**

- 1) Award from Urban Sanitation Hurrah.
- 2) We are the Enterprise Partner of ESRI India, WAIN Connect.

Innovators turned Entrepreneurs are expanding their business to NCR and other region of the nation too. Kudos to these young innovators! IIT(ISM) wishes them a great success for their journey ahead.