HELPUSGREEN: FLOWER POLLUTION TO ORGANIC

• **Background**
The Ganga River originates in the Himalayan region through melting glaciers and traverses more than 2500 km through central Indian states such as Uttar Pradesh, Bihar and West Bengal before entering Bangladesh. On its journey it is joined by Ramganga, Yamuna, Sai, Gomti, Ghaghara, Sone, Gandak, Kosi and Damodar along the way, along with many other smaller rivers. The Ganges, which is virtually synonymous with Indian civilization, is dying. Pollution, over-extraction of water and emaciated farm canals are killing the mighty river.

In the plains this river is polluted by effluents from the numerous factories that line its banks, open defecation, human dead bodies released into the water for religious reasons, and sewer waste released directly into the river. The polluted water not just poses grave danger to human health but to the environment at large as well. Every year 80,000,000 metric tonnes of waste flowers are dumped into river Ganges. Toxic Arsenic, Lead and Cadmium from the harmful farm-runoff, pesticides and insecticides used to grow flowers mixes with the river water making it highly poisonous (PH 6-8.5). These major pollutants affect lives of 400 Million people -linked to contracting dysentery, cholera, hepatitis and severe diarrhoea – which are the leading causes of child mortality across India and Bangladesh. Thus, saving Ganga is the call of the time and future as well.

• **Location, Date**
  Kanpur, Uttar Pradesh; 2016

• **Areas**
  Rural and Urban

• **Stage/Scale**
  The project is in its developing phase.

• **Objective of the assignment**
  With over more than 420 million people who rely on the river for food, water, bathing and agriculture and not to mention the tens of Millions of pilgrims who venture to India's most holy of rivers each year to bathe and worship - Saving the Ganges is crucial.

• **What was done**
  At HelpUsGreen collection of floral waste from the temples in Uttar Pradesh, India is done thus preventing 7600 Kgs waste flowers and 97 Kgs toxic chemicals from getting into the
This case study was curated by the India Sanitation Coalition.

The waste is handcrafted by rural women Self-help groups into patented organic fertilizer and incense sticks. The project is self-sustaining and brings a hope to revive Ganges.

- **Impact**
  - 3,35,000 Kilogram of flowers we have collected form Temples and Mosques and flowercycled® into organic products
  - 997 Kilograms of poisonous Arsenic, Lead and Cadmium from the harmful farm-runoff, toxic pesticides and insecticides used to grow flowers that we prevented from getting into the river Ganges
  - 1219 Rural women we have been able to help earn their living and fighting the societal dogmas
  - 13 temples and three mosques.

- **Challenges and Issues**
  - Collection of such a vast number of flowers is a huge challenge
  - Finding land for decomposition on large scale
  - With the new and unique project finding partners for financial collaboration is also a challenge.
  - For self-sustainability selling of organic products in Indian market is another issue.

- **Innovation**
  - Encouraging entrepreneurship among local women.
  - Recycling toxic waste into eco-friendly products.
  - 17 recipe’ (17 natural ingredients) for composting flowers with the help of earthworms.
  - One of the ingredients in the recipe is coffee residue. coffee residues help boost the nitrogen level in the vermicomposting.

- **Lessons learnt**
The project is limited in the scope of its execution to a few locations on the banks of the river. Hence it is too soon to assess the impact of the project on solving the Ganga pollution. Having said that, the flower recycling system is not a replacement for systematic civic planning and public health and sanitation system. The large amount of sewage and other waste and toxic material that is released into the river is still not treated. For a clean river, these systematic problems need to be solved.

- **Financials**
The total organic market of the world amounted to INR 48,743 crores. The incense sticks market alone is around 3,000 crores worldwide.

- **Economic sustainability/Revenue Model**
  2% of the profit generated is paid on a quarterly basis to HelpUsGreen.
• **Implementer Contact Persons**
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• **Sources and References**
  - **Company Website**
  - [https://www.google.co.in/amp/s/yourstory.com/2016/01/help-us-green/amp/](https://www.google.co.in/amp/s/yourstory.com/2016/01/help-us-green/amp/)