

Water Pollution: - Save River Ganges (for first years only)

Scientists from the Agricultural Research Service (ARS) have developed a new "super sock" technology that helps to prevent pollution from flowing down storm drains and back into water supplies. These socks wrap around storm drains and trap pollutants like pesticides, heavy metals and petroleum products from making their way into oceans and rivers.

Published in the *Journal of Environmental Quality*, the study on these socks found that these compost-filled mesh tubes remove most of the clay, silt and other particles that are present in surface waters. In tests, the socks captured 17 percent of ammonium nitrogen, 75 percent of *E. coli* bacteria and up to 72 percent of heavy metals.

The socks also reduced gasoline runoff by 43 percent, motor oil runoff by 84 percent and diesel fuel runoff by a whopping 99 percent.

However, researchers tried added flocculation agents to the mesh to see if they could get even better results. Flocculation agents help substances to clump together so they are more easily captured by filtration devices.

With added flocculation agents, the socks captured 27 percent of ammonium nitrogen, up to 74 percent of heavy metals, and about 99 percent of *E. coli bacteria*. They also captured more than half of gasoline runoff, and nearly all of motor oil runoff.

Eliminating the chemicals those wash down our drains and into our water supplies are clearly beneficial to both environmental and human health.

Considering the above example of “super sock” technology to reduce the water pollution, suggest more new and innovative methods through which we can save our river Ganges from day by day increasing water pollution.

The proposed idea should be **innovative and practical**, which can be implemented in the Indian scenario.

The following are the bare minimum things that the participant should incorporate while giving their ideas:-

1. Practicality of the idea.
2. **Idea should be original ,it should not be copied from any source.**
3. The idea must be given keeping the Indian conditions in mind.
4. All the feasible technology/method can be discussed but all the steps must be lucidly explained.
5. Participants can also give multiple ideas.

Judging criteria:-

1. How innovative the idea is.
2. Originality of the idea.
3. Applicability of the idea on Indian conditions.
4. The idea should be economical.

Rules and Regulations of Abstract Submission: -

1. Submit your abstract latest by 23:59 hours on 15th September, 2011.
2. Submission should be in hard copy and not more than 6 pages (Font size:-12, Line spacing 1.5) excluding the cover page and also the hard copy at thematica.mechrocosm2011@gmail.com.
3. **The problem is made only for first years and it is open for all the branches of the first year.**