

## Amonia in Yamuna

Yamuna River upon which the capital of the country rely for drinking water is found to contain high amount of Amonia.

The updates shows that Amonia content in Yamuna is about 1.8 parts per million (ppm) which vary upto 3ppm, while safe limit of Amonia ( $\text{NH}_3$ ) is 0.5ppm according to Bureau of Indian Standard (BIS)

There are several reasons behind this such as

- (i) Dependency - Delhi depend for 70% of its drinking water from on Haryana, thus it itself has little roll in Amonia contamination.
- (ii) Agricultural fertilisers - while ideal ration of usage is 4000 kg/ha other elements, farmers uses double of this required amount. Haryana is leading Agriculture producer and also contaminator of Yamuna.
- (iii) Industries -  $\text{NH}_3$  is used in production of dye fertilisers, plastic etc and the water from these industries released untreated into Yamuna.

(iv) capacity of treatment plant - wazirabad, chandawaf  
and okhla plant have capacity to treat Ammonia  
upto 0.9 ppm while water contain double of this amount

Ammonia causes several health problems  
to the biota including Humans. while Fish cant  
tolerate  $\text{NH}_3$  above 1 ppm, human also develop signs  
of sideeffects above 1 ppm such as Blue Baby syndrome  
and damage to internal organs.

Apart from Ammonia, report released by  
National Environment Engineering Research Institute (NEERI)  
last year found high concentration of Toxic metal in  
vegetables grown near Yamuna.

some possible mitigating solutions are :-

(i) enforcement of regulations and law upon industries  
and Agricultural farms to reduce ammonia content  
diversify crop and treat water from their plant.

(ii) Awareness - report published by Last year was  
politicised. such incidents create myths and misconception  
people have the right to know safe condition of  
water.

(iii) ecological flow - to treat water naturally.

(iv) Raising plant capacity to treat water upto 2 ppm  
atleast.