

Heavy metal toxicity

March 29, 2020

Why in news?

- According to National Environmental Engineering Research Institute (NEERI) study, vegetables grown on the Yamuna floodplain have been found to contain high doses of lead.

Findings of the report:

- Though, in 2015, the NGT had banned the cultivation of edible crops and fodder on the floodplain saying that such vegetables were highly contaminated, the practice has continued.
- While the **safe limit for lead in vegetables has been set at 2.5mg/kg** by the FSSAI, the level of the metal detected in vegetable samples collected **from the floodplain ranges from 2.8mg/kg to 13.8mg/kg**.
- **Except for cabbage, lead levels were found to be above the standard** in all vegetables collected from vendors, with the **highest level found in spinach** (14.1 mg/kg).
- The heaviest lead contamination was found in coriander collected from east Delhi.
- Even though **only 2% of the Yamuna's stretch passes through Delhi**, it receives around 70% of the Capital's polluted water.
- The source of lead could be industries dealing in automobile parts, batteries, paint and polythene.

Effects:

- Lead overexposure may cause children to be less playful, clumsier, irritable, and sluggish.
- They experience learning or behavioral problems such as mental retardation and selective deficits in language, cognitive function, balance, behavior, and school

performance.

- In adults, overexposure to lead may cause high blood pressure and damage to the reproductive organs.
- Low levels of iron in the red blood cells (anemia), peripheral neuropathy, and, in some cases, brain damage (encephalopathy).