Context:

World Lead Prevention Week started on October 20, 2019.

On the sidelines, the United Nations Environment Programme (UNEP) has released a report on lead concentration in items like paints.

Permissible limit:

90 ppm is the concentration limit recommended by the Model Law and Guidance for Regulating Lead Paint published by the UNEP in 2018.

It is the lowest and most protective regulatory limit for lead paints that has been set in India and some other countries.

Key points:

Only 13 countries have laws which prescribe that lead concentration should not be more than 90 particles per million (ppm).

These 13 countries are part of 73 countries out of the UN’s 193 members, which, as of September 30, 2019, had confirmed that they had legally binding controls on lead in paint, according to the UNEP report.

The largest economic burden of lead exposure was borne by low- and middle-income countries.

Lead and its concentration:

Lead is added to paints for various reasons, including enhancing the colour, reducing corrosion and decreasing the drying time.

However, lead can reach soil, dust and groundwater through weathering or peeling of the patin.

Health impacts:

Lead exposure accounted for 1.06 million deaths from long-term effects and 24.4 million disability adjusted life years known as DALYs in 2007.

Lead can cause permanent damage to the brain and nervous system, resulting in decreased IQ and increased behavioural problems.

It can also cause anaemia, increase the risk of kidney damage and hypertension, and impair reproductive function.

Young children and pregnant women (whose developing foetus can be exposed) are especially vulnerable to the adverse effects of lead. Even relatively low levels of exposure can cause serious and irreversible neurological damage.

Solutions:

The cost of eliminating the use of lead compounds in decorative paint is much lower than removing these paints from surfaces in homes.

By contrast, the economic cost is low for eliminating the use of lead compounds in new decorative paints. In fact, many manufacturers have already successfully reformulated their paint products to avoid the intentional addition of lead.

According to the paint industry, the reformulation of residential and decorative paints to eliminate lead additives is feasible, and the technical and cost impacts are manageable.

Way Forward:

Hence, there is a need to establish laws and informing people about the hazardous effects of lead in paints remained key
measures to curb its growing menace.