India's first-ever steel road

April 2, 2022

<u>In news</u>—The <u>Diamond City of India</u>, <u>Surat</u>, has recently become the first in India to get a road that is made out of steel slag.

Key highlights-

- It was built by ArcelorMittal Nippon Steel India with CSIR India (Council of Scientific and Industrial Research) & CRRI (Central Road Research Institute) along with the government think tank NITI Aayog.
- Laid in the Hazira Industrial Area, the road consists of 100% processed steel slag.
- The 6-lane 1-kilometer long road is an experimental project that may solve the waste material issue.
- The thickness of the road has been reduced by 30%.

About steel slag-

- Slag is a byproduct of steel production and is similar in character to volcanic rocks such as basalt and granite.
- It is produced during the separation of the molten steel from impurities in steel-making furnaces.
- It consists of silica, alumina, calcium oxide, and iron oxide.
- Slag is primarily used in the cement and construction industries, and largely in road construction.
- Steel slag is a major concern for steel industries as it is considered a waste material.
- The disposal of metallurgical and metal-processing waste in landfills is particularly hazardous for the environment.