

GOVERNMENT OF INDIA  
MINISTRY OF AGRICULTURE AND FARMERS WELFARE  
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO-646**  
TO BE ANSWERED ON THE 08/12/2023

**IMPROVING THE QUALITY OF ACIDIC SOIL**

646. SHRI DEEPAK PRAKSH:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

- (a) especially keeping in view the fact steel plants located in Bokaro and Jamshedpur, Jharkhand produce a large amount of steel and whether a residual waste of 200-250 grams of basic slag is generated with the production of every 1000 kg of steel;
- (b) whether the quality of acidic soils can be improved with proper use and management of locally available basic slag; and
- (c) if so, the details thereof?

**ANSWER**

MINISTER OF AGRICULTURE AND FARMERS WELFARE

(SHRI NARENDRA SINGH TOMAR)

(a) to (c): The integrated steel plants in the country, including those at Bokaro & Jamshedpur, are primarily based on Basic Oxygen Furnace (BOF)/ Linz Donawitz (LD) process. In the BOF/ LD process, the quantum of steel slag generation varies in the range of 180-200 kg per tonne of crude steel.

There is a potential for use of BOF/ LD steel slag as a soil conditioner for treatment of acidic soil. However, there are issues & challenges due to the possibility of leaching of the heavy metals present in the steel slag. Ministry of Steel has funded a R&D project on "Development of Steel Slag based cost effective eco-friendly fertilizers for sustainable agriculture and inclusive growth" by Indian Agriculture Research Institute (IARI) in association with Steel Authority of India Limited (SAIL), JSW Steel & Tata Steel. A part of the objective is also to explore the potential of use of BOF/ LD steel slag as a soil conditioner for treatment of acidic soil and ways & means to minimize the heavy metal leaching within acceptable limits."