

GOVERNMENT OF INDIA  
MINISTRY OF AGRICULTURE AND FARMERS WELFARE  
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION

**LOK SABHA**  
**UNSTARRED QUESTION NO. 3097**  
TO BE ANSWERED ON 21/03/2017

**CHEMICALS IN VEGETABLES**

3097. SHRI Y.V. SUBBA REDDY:

Will the Minister of AGRICULTURE AND FARMERS WELFARE  
कृषि एवं किसान कल्याण मंत्री be pleased to state:

- (a) whether it is a fact that ICAR has found high quantity of arsenic content in potato, brinjal, arum, amaranth, radish, lady's finger, cauliflower, etc., recently which affected more than 7 crore people and more than 3 lakhs of people are also affected with arsenic-related diseases due to use of arsenic-laden water for irrigation, if so, the details thereof;
- (b) whether it is also true that 100 out of 640 districts in the country are affected with arsenic contamination/poisoning;
- (c) if so, the action taken by the Government thereon;
- (d) whether the Government is also aware that crops in 48 mandals out of 56 mandals in Prakasam district of Andhra Pradesh have been affected due to high quantity of fluoride and arsenic in ground water; and
- (e) if so, the corrective steps taken by the Government in this regard including short term and long term measures?

**A N S W E R**

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE  
कृषि एवं किसान कल्याण मंत्रालय में राज्य मंत्री  
(SHRI SUDARSHAN BHAGAT)

**(a) & (b):** Studies conducted by Bidhan Chandra Krishi Viswa Vidyalaya, Kalyani under ICAR funded projects during 2006-2012 revealed that there is considerable accumulation of arsenic in vegetables grown with arsenic contaminated groundwater. It has been found that edible parts of leafy and underground vegetables contain higher arsenic as compared to fruit bearing vegetables.

As per 19<sup>th</sup> Report of Committee of Estimates (2016-17), Ministry of Water Resources, River Development and Ganga Rejuvenation, nearly 70.4 million population is affected with arsenic contamination and 2 to 3 lakhs of confirmed cases of arsenic illness have been identified.

The arsenic contamination in groundwater, presently, spread over 96 districts in 12 States.

(c) The ICAR has recommended conjunctive use of fresh surface water and poor quality groundwater along with other agronomic measures such as application of vermi-compost, FYM, Green manure, and Zinc sulphate to minimize the adverse impact of irrigation with arsenic rich groundwater.

Remedial measures undertaken in arsenic contaminated areas include sharing of groundwater quality data for creating awareness; exploratory drilling carried out for tapping contamination free aquifers in the contamination affected areas; and undertaking the National Aquifer Mapping Programme including construction of tube wells for tapping arsenic safe deeper aquifer.

(d) Yes, Madam. As per Central Ground Water Board (CGWB), Ministry of Water Resources, River Development and Ganga Rejuvenation, groundwater of Prakasam district, Andhra Pradesh contains fluoride above the permissible limit ( $1.5 \mu\text{g L}^{-1}$ ) but arsenic concentration is within the safe limit.

(e) Measure such as recharging the groundwater by rainwater harvesting for irrigation purpose need to be practiced to improve the groundwater quality in this area.

The Government has formulated a National Water Quality Sub-Mission for focus funding to schemes meant for mitigating arsenic and fluoride contamination on cost sharing basis between centre and state. Under this mission, the goal is to provide safe drinking water to arsenic and fluoride affected habitations from sustainable water sources.

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