

WRITTEN ANSWERS TO STARRED QUESTIONS

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
RAJYA SABHA
STARRED QUESTION No.218
ANSWERED ON 16/3/2021

RESEARCH ON COW AND COW PRODUCTS

218 Shri Bikash Ranjan:

Will the Minister of Science and Technology be pleased to state:

- (a) on what basis Government has decided to conduct research on cow and cow products;
and
(b) whether recommendations of scientists were taken before making such reference, if so,
the details thereof?

ANSWER

MINISTER OF HEALTH AND FAMILY WELFARE; MINISTER OF SCIENCE AND
TECHNOLOGY; AND MINISTER OF EARTH SCIENCES
(DR. HARSH VARDHAN)

(a) & (b): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (A) AND (B) OF RAJYA SABHA
STARRED QUESTION NO. 218 FOR ANSWER ON 16.03.2021 REGARDING 'RESEARCH
ON COW AND COW PRODUCTS'.

(a) India is endowed with the largest cattle population in the world, with a huge biodiversity of 43 indigenous cattle breeds. Indian cattle breed is unique to exotic cattle breed genetically and its adaptation in the concerned local environment. However, the understanding of their uniqueness and the effective use of cow-derived products are confined to traditional knowledge passed on through generations based on their experiences. The indigenous cows are mostly disease resistant, have enhanced heat and drought tolerance, better feed efficiency - adaptation to local conditions, source of clean energy, draft power (save fossil fuel + Green House Gas), provide quality human nutrition, extend gainful livelihoods (rural based bio economy) and facilitate organic agriculture. They are source of high-quality Milk - 80% A2 type (disease free) casein to protect from diseases like Type I Diabetes, Ischaemic Heart Disease etc. Milch breeds of India like Sahiwal, Gir, Red Sindhi, Tharparkar are reported to be 100% A2 type. Understanding the uniqueness of the indigenous cows require evidence-based scientific research.

The translation of the research findings to develop into a product and its validation for public use requires focused, multi-disciplinary, multi-stage approach with partnership and support from multiple organizations. This knowledge will also help in scientifically appropriate utilization of this huge national resource for socio-economic development of the nation especially in rural areas.

Thus, to address aforesaid concerns and challenges, Ministry of Science & Technology (S&T) has taken an initiative to launch a National Program on "Scientific Utilization through Research Augmentation-Prime Products from Indigenous Cows: SUTRA-PIC India " to scientifically investigate the traditional practices, by using modern methodology and tools involving Department of Biotechnology (DBT), Department of Scientific and Industrial Research (DSIR) - Council of Scientific & Industrial Research (CSIR), Indian Council of Medical Research (ICMR), Indian Council of Agricultural Research (ICAR), Ministry of New and Renewable Energy (MNRE) and Ministry of AYUSH.

(b) Yes Sir. In this endeavour, a National Brainstorming-cum-Consultative Workshop on "Scientific Validation and Research on Prime products of Indigenous cows" (SVAROP) with the involvement of various constituents of Ministry of Science & Technology was organized during December 2016 by the Centre for Rural Development & Technology (CRDT), Indian Institute of Technology, Delhi (IITD) and identified the need to start a program to scientifically investigate the traditional practices. During the Workshop, the concept ideas/proposals related to SVAROP (Now called SUTRA-PIC India Program) programme, including R&D component on Cow derivatives were presented and discussed extensively by Scientists, researchers, practitioners from various academic & research institutions besides officials of concerned agencies of Government of India (Ministry of Science and Technology, Ministry of AYUSH, etc.). As per deliberations and recommendations that emerged from workshop, a National Steering Committee (NSC) was constituted under the Chairmanship of Dr. Harsh Vardhan, Hon'ble Union Minister

of Health & Family Welfare, Science & Technology, Earth Sciences – Government of India, which had its first meeting on 30 August 2017 to guide and implement the program, and invite project proposals under the program in the key verticals about the importance of indigenous cows.

Subsequently, a meeting of the program “Scientific Utilization through Research Augmentation- Prime Products from Indigenous Cows: SUTRA-PIC India” was conducted during October 2018 at CRDT, IIT-D, New Delhi involving Nodal officers & researchers from DST, DBT, DSIR, ICAR, ICMR and CCRAS-AYUSH and CRDT-IIT Delhi and decided to invite project proposals in following 5 thematic areas through such consultative process-

- Scientific research on uniqueness of Indigenous Cows.
- Scientific research on *Prime-products from indigenous cows* for medicine and health.
- Scientific research on *Prime-products from indigenous cows* for agricultural applications.
- Scientific research on *Prime-products from indigenous cows* for food and nutrition.
- Scientific research on *Prime-products from indigenous cows-based* utility items.

It was also recommended that a concrete pathway for the program starting from collection of raw materials to processing, standardization, component analysis, product development, testing and commercialization for each of the thematic area to be designed; & ICT application also needs to be explored in each of the verticals i.e. identified thematic areas. Accordingly, in compliance with the recommendations, project proposals were invited in five thematic areas through an open call in March 2020.
