GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY LOK SABHA UNSTARRED QUESTION No. 4532 TO BE ANSWERED ON 20/03/2020

R&D ON PRODUCTS FROM INDIGENOUS COWS

4532. SHRI ACHYUTANANDA SAMANTA:

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:

- (a) whether the Government has invited proposals for research and development on prime products from indigenous cows (SUTRA-PIC), if so, the reasons therefor;
- (b) whether any proposals in this regard have already been received and if so, the topics of such proposals; and
- (c) if so, the details of the steps taken/being taken by the Government to ensure that unbiased and impartial indigenous bovine research reaches the Government without undermining its effectiveness?

ANSWER

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

स्वास्थ्य और परिवार कल्याण मंत्री, विज्ञान और प्रौद्योगिकी मंत्री और पृथ्वी विज्ञान मंत्री डॉहर्ष वर्धन

(a) & (b): Yes Sir. 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 Program" as a collaborative program of Department of Science & Technology (DST), Department of Biotechnology (DBT), 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.

This coordinated program aims to work towards convergence of expertise, resources and funds to meet the common objective – Scientific research on prime products of indigenous cows and its application in health, food, agriculture, nutrition etc. It provides a platform to take research towards its logical conclusion with scientific validation and certification of utility products.

In this endeavor, project proposals have been invited through open call by Department of Science & Technology (DST) from scientists/ academicians of Research Institutions, Academies, S&T capable voluntary organizations (NGO's) active in India with

proven record of accomplishment in executing S&T based R&D projects covering following thematic areas:

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

Under open call, total 321 project proposals have been received to carry out research & developmental work. The topics include, inter alia:

- 1. Development of eco-friendly cow dung based herbal mosquito repellent sticks/coil
- 2. Chemical profiling and identification of bioactive principle in Go-mutra ark responsible for bio enhancing activity of antibiotics and anti-cancer drugs
- 3. Development of technology for the preparation of probiotic fermented milk from indigenous cow of Meghalaya North-Eastern part and Gujarat Western part and evaluation of its bio-functional properties
- 4. Biotechnological approaches to enhance seed quality and productivity of pulse crops using prime product of indigenous cow
- 5. Development of targeted mass spectrometry-based prototype assay to estimate A1 and A2 milk of Deoni, Malnad Gidda and Holstein Friesian cattle
- 6. Bio-prospecting therapeutic potential of Himachali Pahari Cow Milk
- 7. Processing and characterization of Bovine colostrum of Indigenous origin of cow and its pharmaceutical and food products for pre-term Infancy, and Malnutrition Solution.
- (c) To ensure that unbiased and impartial indigenous bovine research reaches the Government, new and innovative projects will be selected in competitive grant mode under SUTRA PIC program without undermining its effectiveness. Such process mechanism will involve screening, finalization and implementation of projects involving subject experts from related Ministries/Departments and S&T knowledge institutions/R&D Labs at National level.

Besides, National Innovation Foundation(NIF), Ahmedabad reinforces bovine health through valorization of indigenous veterinary medications for livestock ailments such as mastitis, ephemeral fever, bloat, enhancing milk yield, treatment of ectoparasite, endoparasite infestation and gynaecological disorders like anestrus, retention of placenta. NIF had value added sustainable indigenous technologies as general management practices among farmers for quality livestock health care in an economical manner.
