

GOVERNMENT OF INDIA
MINISTRY OF SOCIAL JUSTICE & EMPOWERMENT
DEPARTMENT OF EMPOWERMENT OF PERSONS WITH DISABILITIES
(DIVYANGJAN)

RAJYA SABHA

UNSTARRED QUESTION NO-453

ANSWERED ON- 22/07/2026

**RESEARCH, DEVELOPMENT AND MANUFACTURING OF ASSISTIVE DEVICES
AND IMPLANTS**

453: Smt. Sumitra Balmik

Will the Minister of Social Justice and Empowerment be pleased to state:

- (a) the steps taken to strengthen domestic research, development and manufacturing of assistive devices and implants, including through the Artificial Limbs Manufacturing Corporation of India (ALIMCO) and the national institutes under the Department;
- (b) whether Government proposes to further support indigenous innovation in assistive technology through partnerships with startups, academic institutions and industry;
- (c) if so, the details thereof; and
- (d) whether any dedicated incentive or fund is envisaged to promote 'Make in India' assistive devices?

ANSWER

MINISTER OF STATE FOR SOCIAL JUSTICE AND EMPOWERMENT
(SHRI B. L. VERMA)

(a) The following steps has been taken by the Department to strengthen domestic research, development and manufacturing of assistive devices and implants:

I. Artificial Limbs Manufacturing Corporation of India (ALIMCO) has undertaken several initiatives to strengthen domestic research, development, and manufacturing of assistive devices through strategic collaborations with premier academic institutions, research organizations, start-ups, and industry partners/Original Equipment Manufacturers (OEMs) under Transfer of Technology (ToT), Memoranda of Understanding (MoUs), and Expressions of Interest (EoIs).

Major initiatives include the indigenous development of advanced mobility and prosthetic solutions such as Mechanical Polycentric Prosthetic Knee Joints; AI-enabled Microprocessor-

Controlled Smart Prosthetic Knees for above-knee amputees in collaboration with the Indian Space Research Organisation (ISRO); AI-enabled 3D printing technology for customized prosthetic devices; motorized wheelchairs and other intelligent mobility solutions; and a partnership with a start-up for the production of an AI-enabled Myo Hand.

In the field of hearing rehabilitation, ALIMCO has collaborated with the Centre for Development of Advanced Computing (C-DAC) and start-ups, including for chip manufacturing through a Surface Mount Technology (SMT) line, as well as with All India Institute of Speech and Hearing (AIISH), Mysuru for the development of AI-based algorithms for hearing aids. For assistive technologies for persons with visual impairment, ALIMCO has undertaken collaborations for the development of smart vision glasses, refreshable Braille displays, accessible scanning and reading devices, and with Central Scientific Instruments Organisation (CSIO)- Council of Scientific & Industrial Research(CSIR), Chandigarh for the development of high-power low-vision lenses.

II. The major collaborations/MoUs undertaken by the National Institutes to strengthen assistive devices and allied technologies are as follows:

- i. Swami Vivekanand National Institute of Rehabilitation Training and Research (SVNIRTAR) has developed a low-cost myoelectric hand and a dynamic response foot using polymer composites in collaboration with the Central Tool Room and Training Centre (CTTC), Bhubaneswar, and the Central Institute of Plastics Engineering and Technology (CIPET), Bhubaneswar, respectively.
- ii. An indigenous microprocessor-based artificial knee is being developed in collaboration with Vikram Sarabhai Space Centre- Indian Space Research Organisation (VSSC-ISRO), Pandit Deendayal Upadhyaya National Institute for Persons with Physical Disabilities (PDUNIPPD), National Institute for Locomotor Disabilities (NILD), and ALIMCO.
- iii. PDUNIPPD is developing footwear for diabetic neuropathy patients in collaboration with Footwear Design & Development Institute (FDDI), Noida.
- iv. NILD has developed the Bend Knee Prosthetic Device. NILD has also collaborated with the following organizations for the development of assistive devices:
 - (1) Functional Electrical Stimulation Device with Indian Institute of Technology (IIT) Kharagpur.
 - (2) Indigenous Pressure Mat-Based Low-Cost Gait Analyzer with Department of Science and Technology (DST) and Indian Institute of Engineering Science and Technology (IIEST), Shibpur.
 - (3) Intelligent Lower Limb Prosthesis with ISRO, Thiruvananthapuram.

(b) and (c): In Para 86 of the Union Budget 2026–27, the Government announced the *Divyang Sahara Yojana* to support ALIMCO in scaling up the production of indigenous assistive devices and promoting research & development (R&D) and AI integration.

(d): No dedicated incentive or fund has been envisaged to promote 'Make in India' assistive devices.
