



**MEMORANDUM OF UNDERSTANDING AMONG
THE DEPARTMENT OF SCIENCE AND TECHNOLOGY AND THE DEPARTMENT
OF BIOTECHNOLOGY OF THE GOVERNMENT OF THE REPUBLIC OF INDIA
AND THE NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL
OF CANADA CONCERNING COOPERATION IN SCIENCE AND TECHNOLOGY**

THE DEPARTMENT OF SCIENCE AND TECHNOLOGY (DST) AND THE DEPARTMENT OF BIOTECHNOLOGY (DBT) OF THE GOVERNMENT OF THE REPUBLIC OF INDIA (INDIA) AND THE NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA (NSERC), hereinafter collectively referred to as the “Participants”,

CONSIDERING the *Agreement for Scientific and Technological Cooperation between the Government of the Republic of India and the Government of Canada*, (the “Agreement”), done at New Delhi, India on 18 November 2005;

CONSIDERING that the Network of Centres of Excellence (NCE) program, discontinued in 2018, has created and funded the India-Canada Centre for Innovative Multidisciplinary Partnership to Accelerate Community Transformation and Sustainability (IC-IMPACTS) through a competitive process in 2012 and that the currently-funded networks, including the IC-IMPACTS, will continue to be funded until the end date of their grant;

CONSIDERING that IC-IMPACTS is the first and only NCE designed to strengthen research and commercialization ties between their countries in order to work hand-in-hand with communities in India and Canada to develop and implement community-based solutions to the most urgent needs of each country, including but not limited to poor water quality, unsafe and unsustainable infrastructure, and poor health from water-borne and infectious diseases through multi-sector engagement and partnership between academia, industry, government, not-for-profit organizations and members of the community;

CONSIDERING that, since the creation of IC-IMPACTS in 2013, it has successfully collaborated with DST and DBT and launched eight Calls for Research Proposals resulting in the training of 1059 students (414 PhDs, 258 Masters, 138 Post-Docs and 249 technicians, UG, and others), including over 300 Indian students, mainly Ph.D. and masters, 63 bilateral projects, 1128 publications and presentations, 352 partnerships with governments, industries, universities, communities, and others;

CONSIDERING that their research has directly contributed to 29 patents and technology disclosures, seven start-ups, and over 24 technology deployments projects in India and Canada (particularly in Indigenous communities of Canada);

CONSIDERING that IC-IMPACTS continues to be authorized to work with Indian agencies, particularly with the DBT and DST;

HAVE REACHED the following understanding:

1. OBJECTIVE

The objective of this Memorandum of Understanding (MOU) is to establish a framework for the Participants to cooperate on science and technology in the areas listed below.

2. AREAS OF COOPERATION

The Participants will cooperate in the following areas:

- (i) Safe and Sustainable Infrastructure;
- (ii) Integrated Water Management;
- (iii) Health, Energy and Agritech;
- (iv) any other areas they may jointly decide upon.

3. WORKSHOPS

- (a) The Participants may jointly organize workshops in India and Canada to stimulate research cooperation and identify specific themes/projects in the areas of cooperation based on mutual interest.
- (b) The Participants will jointly determine the dates and topics of the workshops with mutual consent.

4. JOINT RESEARCH PROJECTS

- (a) The Participants will issue open calls as they may jointly decide to support joint scientific projects based on mutual interest and intend to develop new knowledge and technologies in the areas of cooperation.
- (b) The Participants will receive project proposals through a joint Request for Proposals (RFP) they jointly approve based on their respective evaluations. The Participants will jointly decide the RFP timeline and the project evaluation process.

5. SHARING OF INFORMATION

- (a) The Participants may make scientific and technological information of non-proprietary nature arising from the research projects under this MOU freely available to the public online (open access) through customary channels, and in accordance with their normal procedures.
- (b) The Participants will encourage responsible stewardship and sharing of research data information in accordance with their national laws and policies, including but not limited to privacy, legal, ethical and commercial considerations and obligations, and the secure transmission and storage of data. To this end, the Participants support the FAIR (Findable, Accessible, Interoperable, and Reusable) guiding principles for research data management and stewardship. The Participants understand that researchers are expected to only make data accessible if doing so is ethical, legal, and is in consonance with any commercial or other agreements into which the researchers have entered.

- (c) The Participants will ensure that researchers funded by IC-IMPACTS, DST or DBT make research data accessible to co-researchers funded for the same project in a timely manner.
- (d) Upon their mutual consent, the Participants may embargo the information that may lead to patentable intellectual property for specified, reasonable amounts of time until analyses are completed by the original investigator.

6. PROTECTION OF CONFIDENTIAL INFORMATION

- (a) The Participants will keep confidential all information exchanged under this MOU and will use it in accordance with the conditions specified by the providing Participant.
- (b) The Participants will not share confidential information with third parties or use the information for purposes other than the one specified by the providing Participant, without its prior written consent.

7. FUNDING

- (a) The Participants will each pay for their participation in the research projects and workshops.
- (b) For scientist, faculty and student exchanges, the sending Participant will pay for the international travel costs of its scientists, faculties and students, up to the relevant entry city of the receiving Participant's country, as well as costs for medical insurance.
- (c) For scientist, faculty and student exchanges, the receiving Participant will pay for the living costs of the visiting scientists, faculties and students.
- (d) The Participants understand that scientist exchanges are intended to support funded research projects between IC-IMPACTS and DST/DBT and that each exchange will be pre-approved by IC-IMPACTS and DST/DBT.

8. INTELLECTUAL PROPERTY

- (a) In accordance with their national law the Participants intend to ensure adequate and effective protection and fair distribution of intellectual property rights or other rights of a proprietary nature resulting from the cooperative activities carried out under this MOU.
- (b) The Participants intend to respect the policies relating to the negotiation of Intellectual Property (IP) Rights established by researchers of the respective institutions.
- (c) The Participants intend to consult each other on IP rights issues resulting from any joint activities pursuant to this MOU.

9. THE AGREEMENT

The Participants understand that all aspects of cooperative activities carried out under this MOU that are not covered under this MOU are governed by the Agreement. In case of inconsistency between the provisions of the Agreement and this MOU, the provisions of the Agreement will prevail.

10. DIFFERENCES IN INTERPRETATION AND APPLICATION

The Participants will resolve any difference arising out of the interpretation or application of this MOU amicably through consultation.

11. FINAL DISPOSITIONS

- (a) This MOU will come into effect on the date of its last signature by the Participants and will remain valid until 31 March 2024.
- (b) The Participants may extend this MOU upon their mutual written consent.
- (c) Either Participant may terminate this MOU by giving a 90 days' written notice in advance to the other Participant.

- (d) The Participants understand that the termination of this MOU will not affect the completion of any joint project already being carried out.
- (e) The Participants understand that the working language for this MOU will be the English language.

SIGNED digitally at _____, on this _____ day of _____ 2022,
and at _____, on this _____ day of _____ 2022, and at _____, on
this _____ day of _____ 2022, in the Hindi, English and French languages,
each version being equally valid. The Participants understand that the digital signatures
are equivalent to paper signatures.

**FOR THE DEPARTMENT OF SCIENCE
AND TECHNOLOGY OF THE GOVERNMENT
OF THE REPUBLIC OF INDIA**

**FOR THE NATURAL SCIENCES
AND ENGINEERING RESEARCH COUNCIL
OF CANADA**

Digitally signed by Chandarasekhar
srivari
Date: Fri May 13 12:43:53 IST 2022
Reason: INDIA

Dr. Srivari Chandrasekhar
Secretary

Dr. Alejandro Adem
President

**FOR THE DEPARTMENT
OF BIOTECHNOLOGY
OF THE GOVERNMENT
OF THE REPUBLIC OF INDIA**

Dr. Rajesh S Gokhale
Secretary