



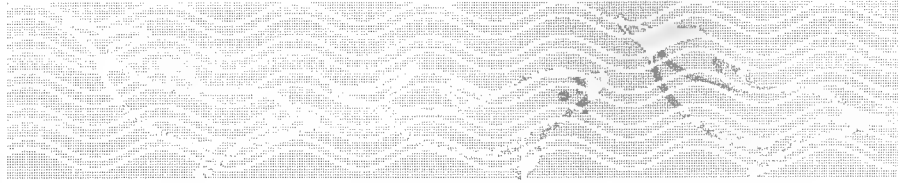
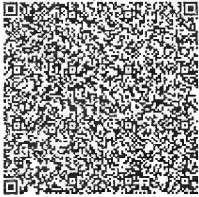
सत्यमेव जयते

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Account Reference : IMPACC (IV)/ dl933003/ DELHI/ DL-DLH
Unique Doc. Reference : SUBIN-DL93300311643792897731T
Purchased by : DIRECTOR ICAR NBPGR NEW DELHI
Description of Document : Article 5 General Agreement
Property Description : GERMPASM AND HERBARIUM AS PER IPR
Consideration Price (Rs.) : 0
(Zero)
First Party : DIRECTOR ICAR NBPGR NEW DELHI
Second Party : DIRECTOR BSI KOLKATA
Stamp Duty Paid By : DIRECTOR ICAR NBPGR NEW DELHI
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



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Memorandum of Understanding between ICAR-NBPGR and BSI

This memorandum of understanding (MOU) entered into and executed on 3rd March, 2021, between **ICAR-National Bureau of Plant Genetic Resources**, the organization under the **Indian Council of Agricultural Research**, Government of India having its office at Pusa Campus, New Delhi-110012, India, of the first part

AND

Botanical Survey of India, is organization under Government of India, Ministry of Environment, Forest and Climate Change in India at CGO Complex, 3rd MSO Building, Block F (5th and 6th Floor), DF Block, Sector I, Salt lake City, Kolkata - 700 064, of the second part

Deep Singh

Dr. S. S. Choudhary

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1. PREAMBLE

- 1.1 WHEREAS, The **ICAR-National Bureau of Plant Genetic Resources (NBPGR)** founded in the year 1976, is a nodal organization for overall management of plant genetic resources of food and agriculture (PGRFA) in the country. Exploration, collection and conservation of germplasm is the first and foremost activity of PGR management. Under this activity, indigenous germplasm (seed/ vegetatively propagated material/pollen, etc.) belonging to various agri-horticultural crops, their wild relatives and other economic plants available in different diversity rich areas of country is explored and collected for their ex-situ conservation in the National Genebank, field gene banks /NAGs, as well as to use in crop improvement programmes.
- 1.2 WHEREAS, The **Botanical Survey of India (BSI)** founded in 1890 with the objectives of exploring the plant resources of the country and identifying plant species with economic virtue. BSI conducts intensive floristic surveys and collect detailed information on the occurrence, distribution, ecology and economic utility of plants; collects, identify and distribute materials among the educational and research institutions; and acts as the custodian of authentic collections in the form of herbaria and documents plant resources in the form of local, district, state and national flora.
- 1.3 WHEREAS, to harness from the synergies of the two organizations for the much-needed emphasis on field survey, study, conservation and utilization of indigenous diversity of crop wild relatives and wild economical important plants in the country. Both institutions, Botanical Survey of India (BSI) and National Bureau of Plant Genetic Resources agreed to mutually compliment their expertise to strengthen plant taxonomy, germplasm exploration, collection and conservation related research activities of common interest.

THEREFORE, both the parties wish to enter into an understanding to achieve the following objectives

2. PURPOSE OF MOU

The Parties' Main Objective under this MOU is to establish a long-term relationship for purposes of strengthening their complementary research on management of plant genetic resources, institutional development and



- x. Collected germplasm will be assigned the national identity number- IC No. (Indigenous collection) by NBPGR, after ex-situ conservation. In case of vegetatively propagated material /recalcitrant species, the IC No. will be allotted after establishment in FGB of BSI/NBPGR/NAGs.
- xi. BSI is having highly capable expertise in field of taxonomy; hence it will impart training to the scientists and technical staff of NBPGR. In turn, NBPGR will also provide training on *ex-situ* conservation to BSI scientists and technical staff. The duration of training, number of scientists/staff would be decided mutually by both the institutes.
- xii. Both of the institutes will provide access to the preserved and virtual herbarium specimens to each other for research and identification purposes.
- xiii. In case of un-expected or difficult situations during exploration and leading to deviation from the planned programme, the decision on future course of action would be based on consensus among the team members.

4. DURATION OF THE AGREEMENT, TERMINATION AND MODIFICATION

This Agreement shall enter into force for an initial period of 5 years, on the date of its signature by the duly authorized representatives of the Parties, or until either of the parties opts out of the MOU and may be renewed by mutual agreement of the Parties for a further period of 5 years thereafter.

5. FINANCIAL ARRANGEMENT

This Memorandum of Understanding carries no financial commitments on either Party. The contingency expenditure on hiring of vehicles, labour, interpreter, dispatch of material, etc. would be mutually decided as agreeable to both the Institutes. The TA/DA of the staff /scientist during conducting explorations and imparting training would be borne by their respective institute. No institute would claim any financial loss or liability on the other.

6. INTELLECTUAL PROPERTY RIGHTS

- 6.1 ICAR-NBPGR and BSI both are supportive of and consistent with the NBA guidelines on the Management of Intellectual Assets. (Both the parties will support the guidelines for access-benefit sharing mechanism of the NBA)



In Agreements between ICAR-NBPGR and BSI, the following objectives inter alia will be adhered to: a) Protection of the Parties' confidential information; b) respect for and sound management of IP; c) that access to outputs of collaborations remain available on a fair and equitable basis with as few restrictions as possible and promptly disseminated; d) joint authorships in all publications arising out of any joint work, role of either partner will be acknowledged, and e) No rights of any kind whatsoever in any data, publication, invention, copyright, trade secret or any other form of intellectual property (collectively defined as "IP") are granted or transferred to any third party without the consent of either party under this MOU. However, dissemination of information in seminar/symposia/conferences would be exempted.

6.2 Each Party shall maintain the ownership of any Prior Intellectual Property that it delivers or communicates in the course of this MOU or any subsequent Agreement. Prior Intellectual Property includes all cultivars (commercial or not), plant materials, information, techniques, knowledge, practices, processes, testing procedures, Know-how, software and materials (regardless of the form or medium in which is disclosed or stored) that any of the parties have before this MOU or any subsequent Agreement and that they can exchange in relation to it.

7. TERMINATION AND AMENDMENTS OF MOU

Either Party may terminate this MoU by giving at least three (3) months prior written notice to the other.

Variations or amendments to this MOU shall be effective only in writing and signed on behalf of each Party by Director or other duly authorized person.

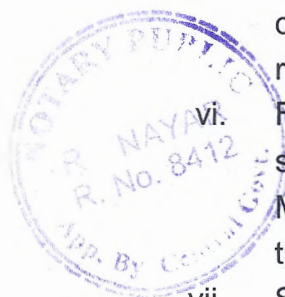
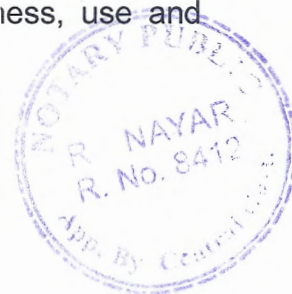


capacity development to further their respective missions. It includes, to explore un-known, un-tapped plants genetic resources, harness, use and conserve the biodiversity, which are eroding very fast.

3. SCOPE OF MOU

3.1 The parties agree to collaborate efforts in the areas of:

- i. Both the institutes would plan and conduct joint explorations on the plant species of common interest like crop wild relatives, minor fruits, wild edible and other economically important species including M&APs.
- ii. Both the institutions would identify nodal scientists to coordinate, make plan and execution of research programmes in collaboration.
- iii. Scientist In-charge, Technical Section at BSI, Kolkata would be the nodal scientist to plan and coordinate to execute the programme.
- iv. Head, Division of Plant Exploration and Germplasm Collection at ICAR-NBPGR, New Delhi would be the nodal scientist to plan and coordinate to execute the programme.
- v. Primarily the explorations of BSI focus on recording distribution of plant diversity, which is best at the time of flowering and the ICAR-NBPGR on collecting germplasm (mostly seeds) at time of maturity of plants for conservation. Hence, exploration period has to be adjusted to meet the requirement of both institutes.
- vi. For explorations in protected areas the permission from the (CCF, WL) state forest department is essential, for which the BSI being under the MoEF&CC, will complete the formalities and obtain the permission from the state forest department of concerned protected area.
- vii. Since, NBPGR collects germplasm (seeds/vegetative propagules, herbariums, economic products, etc.) for ex-situ conservation, which has to be included in request for permission from state forest department.
- viii. In case of unidentified species, BSI will extend help in identification of material and provide authentication certificate. The type specimen/new specimen if any discovered, would be deposited with its details in the herbaria of both the institutions i.e. Holotype at CAL and Isotype at NBPGR.
- ix. Collected germplasm will be shared among both institutes for conservation and research. Collection of plant specimens will be housed at BSI/its regional herbaria and a copy in NHCP of NBPGR.



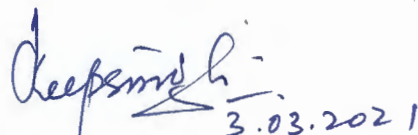
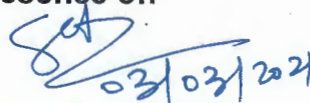

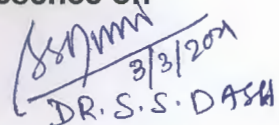
Deep Singh

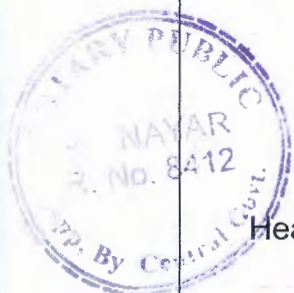
Dr. D. S. Dhillon



IN WITNESS WHEREOF, both the Parties have set and subscribed their respective hands to this Memorandum of Understanding on the date and place first mentioned above, in the presence of following witnesses.

Signed and delivered by:

<p> 3.03.2021 (Dr. Kuldeep Singh) Director, ICAR-NBPGR, Pusa Campus, New Delhi-110012, India.</p> <p>निदेशक Director राष्ट्रीय पादप आनुवंशिक संसाधन ब्यूरो National Bureau of Plant Genetic Resources पूसा कैम्पस, नई दिल्ली-12 Pusa Campus, New Delhi-12</p> <p>In presence of:  03/03/2021 Sudhir Pal Ahlawat Head, DPEGC, ICAR-NBPGR</p> <p>सुधीर पाल अहलावत/S.P. AHLAWAT विभागाध्यक्ष / Head पादप अन्वेषण एवं संग्रह विभाग Division of Plant Exploration and Germplasm Collection राष्ट्रीय पादप आनुवंशिक संसाधन ब्यूरो National Bureau of Plant Genetic Resources नई दिल्ली/New Delhi</p>	<p> 03/03/2021 (Dr. A. A. Mao) Director, BSI MOEFCC, CGO Complex, 3rd MSO Building, Block F (5th and 6th Floor), DF Block, Sector I, Salt Lake City, Kolkata – 700 064, India</p> <p>निदेशक Director भारतीय वनस्पति सर्वेक्षण Botanical Survey of India भारत सरकार Govt. of India राष्ट्रीय वनस्पति सर्वेक्षण 3rd MSO Building सी.जी.ओ. कॉम्प्लेक्स, साल्ट लेक सिटी CGO Complex, Salt Lake City कोलकाता/Kolkata-700 064</p> <p>In presence of:  3/3/2021 DR. S. S. DASH प्रभारी वैज्ञानिक ई / Scientist-E, Incharge प्रकाशन अनुभाग / Publication Section भारतीय वनस्पति सर्वेक्षण / Botanical Survey of India सी.जी.ओ. कॉम्प्लेक्स, साल्ट लेक सिटी CGO Complex, Salt Lake City कोलकाता-700 064 / Kolkata-700 064</p>
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ATTESTED
Notary Public, Delhi
03 MAR 2021