

No. BT/NIPGR/Flagship-Prog/2018-19

Government of India
Ministry of science & technology
Department of biotechnology

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003

Dated:-27.06.2019

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the flagship project entitled "Imparting sheath blight disease tolerance in rice" of DBT Autonomous Institute-NIPGR, New Delhi involving 5 collaborating Institutes for a period of 3 Year at a total cost of Rs. 728.88224 Lakh (Rupees Seven Hundred Twenty Eight Lakhs Eighty Eight Thousand Two Hundred Twenty Four Lakh Only) on the terms and conditions detailed here under:-

- 2 The Project :
- 2.1 Title :- "Imparting sheath blight disease tolerance in rice".
- 2.2 Details of the PIS/Co-PIS and Institutes:

Overall Project Coordinator:

Dr. Ramesh V. Sonti
Director,
National Institute of Plant Genome Research,
Aruna Asaf Ali Marg, New Delhi-110067

Project Investigator (PIs)/ Co-Investigators(Co-Is)

NIPGR, New Delhi

1. Dr. Gopaljee Jha, Staff Scientist –IV, National Institute of Plant Genome Research, Aruna Asaf Ali Marg, New Delhi-110067.
2. Dr. Debasis Chattopadhyay, Staff Scientist VII, National Institute of Plant Genome Research, Aruna Asaf Ali Marg, New Delhi-110067.
3. Dr. Swarup Kumar Parida, Staff Scientist –IV, National Institute of Plant Genome Research, Aruna Asaf Ali Marg, New Delhi-110067.
4. Dr. Manoj Majee, Staff Scientist –V, National Institute of Plant Genome Research, Aruna Asaf Ali Marg, New Delhi-110067.

NIH, New Delhi

1. Dr. Amulya K Panda, Director, Department of Immunity and Infection, National Institute of Immunology, Aruna Asaf Ali Marg, New Delhi-110067.

IIRR, Hyderabad

1. Dr. Raman Meenakshi Sundaram, Principal Scientist, Department of Biotechnology, ICAR-Indian Institute of Rice Research (IIRR), Hyderabad-500030.
2. Dr. G.S. Laha, Principal Scientist, Department of Pathology, ICAR-Indian Institute of Rice Research (IIRR), Hyderabad-500030.
3. Dr. V. Prakasam, Scientist, Department of Pathology, ICAR-Indian Institute of Rice Research (IIRR), Hyderabad-500030.

4. **Dr. C. Kananan**, Senior Scientist, Department of Pathology, ICAR-Indian Institute of Rice Research (IIRR), Hyderabad-500030.

IARI, New Delhi

1. **Dr. Gopala Krishna S**, Principal Scientist (Plant Breeding), Division of Genetics, ICAR- Indian Agricultural Research Institute (IARI), New Delhi, Delhi-110012.
2. **Dr. Ashok Kumar Singh**, Principal Scientist and Head, Division of Genetics, ICAR- Indian Agricultural Research Institute (IARI), New Delhi, Delhi-110012.
3. **Dr. Bisnu Maya Bashyal**, Scientist (Path Pathology), Division of Genetics, ICAR- Indian Agricultural Research Institute (IARI), New Delhi, Delhi-110012.
4. **Dr. Ranjith K. Ellur**, Scientist (Plant Breeding), Division of Genetics, ICAR- Indian Agricultural Research Institute (IARI), New Delhi, Delhi-110012.

NABI, Mohali

1. **Dr. T.R. Sharma**, Executive Director, Department of Agriculture Biotechnology, National Agri Food Biotechnology Institute (NABI), Mohali-140306.
2. **Dr. Humira Sonah**, Ramalingaswami Fellow, Department of Agriculture Biotechnology, National Agri Food Biotechnology Institute (NABI), Mohali-140306.
3. **Dr. Rupesh Deshmukh**, Ramalingaswami Fellow, Department of Agriculture Biotechnology, National Agri Food Biotechnology Institute (NABI), Mohali-140306.
4. **Dr. Sivasubramanian**, Inspire Fellow, Department of Agriculture Biotechnology, National Agri Food Biotechnology Institute (NABI), Mohali-140306.

IRRI, New Delhi

1. **Dr. Najam Waris Zaidi**, Senior Associate Scientist II, Department of HPR Research Cluster, Plant Breeding Platform, International Rice Research Institute (IRRI), NASC Complex, Pusa New Delhi-110012

2.3 Objectives:

- (i) Developing sheath blight tolerance using cisgenesis/transgenesis (NIPGR).
- (ii) Developing sheath blight tolerance using genome editing (NIPGR, NABI).
- (iii) Developing sheath blight tolerance using molecular breeding:-
 - Characterization of genes for sheath blight tolerance in Wazuhophek, a rice variety from North-East India (IIRR, NIPGR)
 - Characterization of genes for sheath blight tolerance in the introgression line ILS12-5 (IARI).
 - Characterization of SB resistance in a rice diversity panel (IRRI)
- (iv) Controlling sheath blight using novel anti-fungal molecules/agents (NIPGR, NII, IIRR)
- (v) Understanding the population diversity of sheath blight pathogen (IIRR, IARI)

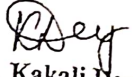
2.4 Time Schedule:

The duration of the project is 3 Year from the date of this sanction order.

2.5 Project Cost:

The total cost of the project is Rs. 728.88224 (Rupees Seven Hundred Twenty Eight Lakhs Eighty Eight Thousand Two Hundred Twenty Four Only) as per details given below:

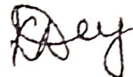
10. This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No.102/IFD/SAN/763/2019-20 dated:- 24.06.2019
11. This sanction order has been noted at serial no. 01 in the Register of Grants.


Dr. Kakali Dey Dasgupta
(Scientist 'E')

To,
The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

Copy to:

1. The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
2. Cash Section, DBT (2 copies).
3. Dr. Ramesh V. Sonti, Director, National Institute of Plant Genome Research, Aruna Asaf Ali Marg, New Delhi-110067.
4. Dr. Gopaljee Jha, Staff Scientist -IV, National Institute of Plant Genome Research, Aruna Asa Ali Marg, New Delhi-110067.
5. Dr. Amulya K Panda, Director, Department of Immunity and Infection, National Institute of Immunology, Aruna Asaf Ali Marg, New Delhi-110067.
6. Dr. Raman Meenakshi Sundaram, Principal Scientist, Department of Biotechnology, ICAR-Indian Institute of Rice Research (IIRR), Hyderabad-500030
7. Dr. Gopala Krishna S, Principal Scientist (Plant Breeding), Division of Genetics, ICAR- Indian Agricultural Research Institute (IARI), New Delhi, Delhi-110012.
8. Dr. T.R. Sharma, Executive Director, Department of Agriculture Biotechnology, National Agri Food Biotechnology Institute (NABI), Mohali-140306.
9. Dr. Najam Waris Zaidi, Senior Associate Scientist II, Department of HPR Research Cluster, Plant Breeding Platform, International Rice Research Institute (IRRI), NASC Complex, Pusa, New Delhi- 110012
10. Sanction Folder.
11. File Copy.


Dr. Kakali Dey Dasgupta
(Scientist 'E')

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "**Site-Directed Mutagenesis of Low-Affinity Nitrate Transporter Gene for Improving Nitrogen Uptake Efficiency in Aerobic Rice**" for a period of 5 Year 0 Month at a total cost of Rs. **16655560** (Rupees One Crores Sixty Six Lakhs Fifty Five Thousand Five Hundred and Sixty Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : Site-Directed Mutagenesis of Low-Affinity Nitrate Transporter Gene for Improving Nitrogen Uptake Efficiency in Aerobic Rice

2.2 Details of the Investigators:

Dr. Renu Pandey
Indian Agricultural Research Institute
New Delhi, New Delhi - 110012

CO-PIs:

Dr. Dinesh Kumar
Indian Agricultural Research Institute
New Delhi, New Delhi - 110012

Dr. Shivani Nagar
Indian Agricultural Research Institute
New Delhi, New Delhi - 110012

Dr. Nagraj M Kumar
Indian Agricultural Research Institute
New Delhi, New Delhi - 110012

2.3 Objectives:

1. To evaluate the nitrogen responsiveness of representative rice varieties based on haplotype analysis.
2. Derive site-specific mutation in low-affinity nitrate transporter and their functional characterization in heterologous system.
3. Functional validation of low-affinity nitrate transporter in rice for dual-affinity nitrate transporter activity.

2.4 Time Schedule:

The duration of the project is 5 Year 0 Month from the date of this sanction order.

2.5 Project Cost:

The total cost of the project is Rs. **16655560/-** (Rupees One Crores Sixty Six Lakhs Fifty Five Thousand Five Hundred and Sixty Only) as per details given below:



Budget Head	Year I	Year II	Year III	Year IV	Year V	Total (Rs.)
Equipment	4200000.00			100000.00	100000.00	4400000.00
Manpower	1190400.00	1190400.00	1249920.00	1249920.00	1249920.00	6130560.00
Overhead	100000.00	50000.00	50000.00	50000.00	50000.00	300000.00
Travel	25000.00	25000.00	25000.00	25000.00	25000.00	125000.00
Consumables	600000.00	800000.00	1000000.00	1000000.00	1000000.00	4400000.00
Contingency	100000.00	50000.00	50000.00	50000.00	50000.00	300000.00
Farm/Field and personnel expenses	500000.00	500000.00				1000000.00
Total (Rs.)	6715400.00	2615400.00	2374920.00	2474920.00	2474920.00	16655560.00

2.6 Equipment

The details of the equipment sanctioned for the implementation of the project at

Annexure-I

2.7 Manpower:

The details of the manpower sanctioned for the implementation of the project at

Annexure-II

3. Head of Account:

The **Non-Recurring** expenditure involved is debitable to:

Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2019-2020
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

The **Recurring** expenditure involved is debitable to:

Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2019-2020
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants -in-Aid General

4. Terms & Conditions:

4.1 The other terms and conditions governing this sanction are attached at Annexure III.

4.2 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA between the grantee institutions and DBT. In case of NGO's and Private Institution's, execution of MOA is mandatory before first release. A format of the MoA is enclosed in Annexure-IV

[Signature]

[Signature]



Details of the manpower sanctioned for the implementation of the project entitled "Site-Directed Mutagenesis of Low-Affinity Nitrate Transporter Gene for Improving Nitrogen Uptake Efficiency in Aerobic Rice":

Head	No. of Position	Year I	Year II	Year III	Year IV	Year V	Total (Rs.)
Junior Research Fellow Rs. 31000 + 24% HRA 1st and 2nd year and Rs. 35000+24% HRA 3rd 4th and 5th year	1	461280	461280	520800	520800	520800	2484960
Research Associate II Rs. 49000 + 24% HRA	1	729120	729120	729120	729120	729120	3645600
Total(Rs.)		1190400	1190400	1249920	1249920	1249920	6130560

Emoluments detail of research personal(s) mentioned in table(s) of Annexure-II shall be applicable only if candidate(s) met educational qualification and eligibility criteria as per DST OM No. SR/S9/Z-08/2018 dated 30.01.2019 for JRF/SRF/RA and OM No. SR/S9/Z-05/2019 dated 21.08.2019 for all other categories.

Sanjay

डॉ. संजय (Dr. Sanjay Kalia)
वैज्ञानिक, Scientist 'E'

बायोटेक्नोलॉजी विभाग
विज्ञान और प्रौद्योगिकी
मंत्रालय, नई दिल्ली

Renu

डॉ. रेणु पण्डे / Dr. RENU PANDEY
प्रधान वैज्ञानिक / Principal Scientist
कार्बन स्रोतों और/Or Director of Plant Physiology
संशोधन एवं प्रौद्योगिकी विभाग
भारतीय कृषि विज्ञान संस्थान
पंजाब, लुधियाना-141 003



ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Editing rice genes through CRISPR/Cas9 technology for enhanced and durable blast resistance in rice." for a period of 3 Year 0 Month at a total cost of Rs. 17559272 (Rupees One Crores Seventy Five Lakhs Fifty Nine Thousand Two Hundred and Seventy Two Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : Editing rice genes through CRISPR/Cas9 technology for enhanced and durable blast resistance in rice.

2.2 Details of the Investigators:

Project Coordinator

Dr. Malireddy K Reddy

International Centre for Genetic Engineering & Biotechnology, New Delhi

Principal Investigators:

Dr. Malireddy K Reddy

International Centre for Genetic Engineering & Biotechnology, New Delhi

Dr. Ganesan Prakash

Indian Agricultural Research Institute, Pusa Campus, New Delhi

CO-PIs:

Dr. Aundy Kumar

Indian Agricultural Research Institute, Pusa Campus, New Delhi

Dr. V Mohan Murali Achary

International Centre for Genetic Engineering & Biotechnology,
New Delhi

2.3 Overall Objectives:

1. Genetic improvement of Indian rice cultivar for enhanced and durable blast resistance by knocking out the blast susceptible gene loci through CRISPR/Cas9 based genome editing approach.

डॉ. संजय कालिया / Dr. Sanjay Kalia
वैज्ञानिक / Scientist

बायोटेक्नोलॉजी विभाग / Biotechnology
विज्ञान और प्रौद्योगिकी विभाग / Science and Tech
भारत सरकार, नई दिल्ली / Govt of India, New Delhi

Page No. [1 / 6]

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डॉ० जी० प्रकाश
DR. G. PRAKASH
वैज्ञानिक / Scientist

बायोपैथोलॉजी विभाग / Biopathology
Division of Biopathology

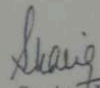
भा.क.अनु.प. - भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-12
ICAR-Indian Agricultural Research Institute, New Delhi-12

Annexure -II

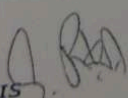
Details of the manpower sanctioned for the implementation of the project entitled "Editing rice genes through CRISPR/Cas9 technology for enhanced and durable blast resistance in rice.":

Head	No. of Position	Year I	Year II	Year III	Total (Rs.)
1. Indian Agricultural Research Institute, Pusa Campus, New Delhi					
Field Assistant Rs. 17991 per month	1	215892	215892	215892	647676
Research Assistant	1				
Research Associate III Rs. 54000+24% HRA		803520	803520	803520	2410560
Senior Research Fellow Rs. 35000+24% HRA	1	520800	520800	520800	1562400
Total(Rs.)		1540212	1540212	1540212	4620636
2. International Centre for Genetic Engineering & Biotechnology					
Field Assistant Rs. 17991 per month	1	215892	215892	215892	647676
Research Associate	1				
Research Associate III Rs. 54000+24% HRA		803520	803520	803520	2410560
Senior Research Fellow Rs. 35000+24% HRA	1	520800	520800	520800	1562400
Total(Rs.)		1540212	1540212	1540212	4620636

Emoluments detail of research personal(s) mentioned in table(s) of Annexure-II shall be applicable only if candidate(s) met educational qualification and eligibility criteria as per DST OM No. SR/S9/Z-08/2018 dated 30.01.2019 for JRF/SRF/RA and OM No. SR/S9/Z-05/2019 dated 21.08.2019 for all other categories.


 (Dr. Sanjay Kalia)
 Scientist 'E'
 डॉ. संजय कालिया
 केंद्र प्रमुख, आनुवंशिकी एवं
 बायोटेक्नोलॉजी विभाग
 भारतीय प्रौद्योगिकी संस्थान, नई दिल्ली-110016

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 डॉ० जी० प्रकाश
 DR. G. PRAKASH
 वैज्ञानिक / Scientist
 पादप रोग विज्ञान संभाग
 Division of Plant Pathology
 भारतीय प्रौद्योगिकी संस्थान, नई दिल्ली-12
 Indian Institute of Technology, New Delhi-12

2212 172

No. BT/PR25403/NER/95/1319/2017
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY
(NER-BPMC)

Administrative
Appl. No. Agri/2017/153

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003

Dated: 13/01/2020
13

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled: "**Marker assisted pyramiding of three major genes (Pi54, Pi1, Pita) for blast resistance into elite rice varieties, Bhalum 5 and Shahsarang**" for a period of 3 Year 0 Month at a total cost of Rs. **6112988** (Rupees Sixty One Lakhs Twelve Thousand Nine Hundred and Eighty Eight Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : "Marker assisted pyramiding of three major genes (Pi54, Pi1, Pita) for blast resistance into elite rice varieties, Bhalum 5 and Shahsarang"

Details of the Investigators:

2.2

Project Coordinator

Mr. Amit Kumar

Scientist

Plant Breeding

ICAR Research Complex for North East Hill Region

Amit Kumar, Scientist (Plant Breeding), ICAR Research Complex for NEH Region, Umiam, Meghalaya, Shillong, Meghalaya, 793103

Principal Investigators:

Mr. Amit Kumar

Scientist

Plant Breeding

ICAR Research Complex for North East Hill Region

Amit Kumar, Scientist (Plant

Dr. Gopala Krishnan S

Senior Scientist

Genetics

Indian Agricultural Research Institute

Division of Genetics, Indian

Mr. Amit Kumar

Scientist

Plant Breeding

ICAR Research Complex for North East Hill Region

Amit Kumar, Scientist (Plant

Vaishali

डॉ. वैशाली पंजाबी / Dr. VAISHALI PANJABI
वैज्ञानिक 'E' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Dept. of Biotechnology
विज्ञान और प्रौद्योगिकी, भारत सरकार / M/o Science & Tech
नई दिल्ली / Govt. of India, N. Delhi

Page No. [1 / 8]

CO-PI:

Dr. Ranjith Kumar
Elter
Scientist
Genetics
Indian Agricultural
Research Institute
Indian Agricultural
Research Institute,
New Delhi - 110012,
West Delhi - 110012,
Delhi (UT)

Dr. G Prakash
Scientist
Plant Pathology
Indian Agricultural
Research Institute
Division of Plant
Pathology, Indian
Agricultural Research
Institute, New Delhi,
West Delhi - 110012,
Delhi (UT)

Dr. Bijoya
Bhattacharjee
Principal Scientist
Centre for
Biotechnology
ICAR RESEARCH
COMPLEX FOR NEH
REGION
ICAR Research
Complex for NEH
region,
Umiam, Meghalaya,
UMIAM - 793103,
Meghalaya

2.3 Objectives:

Overall Objectives:

1. To pyramid three blast resistance genes namely Pi54, Pi1 and Pita in the genetic background of Bhalum 5 and Shahsarang
2. To evaluate the pyramided lines for agro-morphological, grain and cooking quality traits

Institute wise Objectives:

ICAR Research Complex for North East Hill Region

1. To pyramid three blast resistance genes namely Pi54, Pi1 and Pita in the genetic background of Bhalum 5 and Shahsarang
2. To evaluate the pyramided lines for agro-morphological, grain and cooking quality traits

Indian Agricultural Research Institute

1. To pyramid three blast resistance genes namely Pi54, Pi1 and Pita in the genetic background of Bhalum 5 and Shahsarang
2. To evaluate the pyramided lines for agro-morphological, grain and cooking quality traits

Details of the manpower sanctioned for the implementation of the project entitled "Marker assisted pyramiding of three major genes (Pi54, Pi1, Pita) for blast resistance into elite rice varieties, Bhalum 5 and Shahsarang":

Head	No. of Position	Year I	Year II	Year III	Total (Rs.)
1. ICAR Research Complex for North East Hill Region					
Junior Research Fellow Manpower 20% HRA	1	360000	360000	0	720000
Senior Research Fellow Manpower 20% HRA	1	0	0	402996	402996
Total(Rs.)		360000	360000	402996	1122996
2. Indian Agricultural Research Institute					
Junior Research Fellow Qualification : M.Sc/ Ph.D. Life Sciences, Emoluments: Rs 25,000 + 30% HRA per month for first two years and Rs.28,000 + 30% HRA per month for third year	1	390000	390000	0	780000
Senior Research Fellow Manpower 30% HRA	1	0	0	436992	436992
Total(Rs.)		390000	390000	436992	1216992

Emoluments detail of research personal(s) mentioned in table(s) of Annexure-II shall be applicable only if candidate(s) met educational qualification and eligibility criteria as per DST OM No. SR/S9/Z-09/2012 dated 21.10.2014 for JRF/SRF/RA.

Vaishali

(Dr. Vaishali Panjabi)
Scientist 'E'

डॉ. वैशाली पंजाबी / Dr. VAISHALI PANJABI
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Dept. of Biotechnology
विज्ञान और प्रौद्योगिकी, मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt of India, N. Delhi

No. BT/PR31301/AGIII/103/1115/2019
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 18.07.2019

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Development of high density linkage map and tagging salinity tolerance in lentil using genotyping-by-sequencing approach for improving salt tolerance" for a period of 3 Year 0 Month at a total cost of Rs. 7299512 (Rupees Seventy Two Lakhs Ninety Nine Thousand Five Hundred and Twelve Only) on the terms and conditions detailed here under:-

2 The Project :

- 2.1 Title : Development of high density linkage map and tagging salinity tolerance in lentil using genotyping-by-sequencing approach for improving salt tolerance
- 2.2 Details of the Investigators:

Project Coordinator

Dr. Dharmendra Singh
Principal Scientist Plant Breeding
Department of Genetics
Indian Agricultural Research Institute
Pusa Campus, New Delhi- 110012

Principal Investigators:

Dr. Dharmendra Singh
Principal Scientist Plant Breeding
Department of Genetics
Indian Agricultural Research Institute
Pusa Campus, New Delhi- 110012

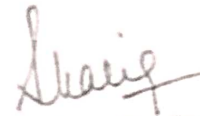
Dr. Vijeta Singh
Scientist
Crop Improvement
Central Soil Salinity Research Institute
Kachwa Road Zarifa Farm, Karnal - 132001

CO-PIs:

Dr. Gyan Prakash Mishra
Indian Agricultural Research Institute,
Pusa Campus, New Delhi - 110012, Delhi

Dr. Madan Pal
Principal Scientist
Indian Agricultural Research Institute,
Pusa Campus, New Delhi - 132001, Delhi

Dr. Satish Kumar Sanval
Principal Scientist
Central Soil Salinity Research Institute
Kachwa Road, Zarifa Farm, Karnal - 132201, Haryana



डॉ. संजय कालिया / Dr. Sanjay Kalia
व्यवस्थापक / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Dept. of Biotechnology
विज्ञान और प्रौद्योगिकी विभाग / Min. Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India. Page No. [1 / 5]

2.6 Manpower:

The details of the manpower sanctioned for the implementation of the project at Annexure-I

3. Head of Account:

The Recurring expenditure involved is debitible to:

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2019-2020
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants -in-Aid General

4. Terms & Conditions:

4.1 The other terms and conditions governing this sanction are attached at Annexure- III.

4.2 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA between the grantee institutions and DBT. In case of NGO's and Private Institution's, execution of MOA is mandatory before first release. A format of the MoA is enclosed in Annexure-IV

4.3 The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Accounts.

5. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.

6. The Director, Central Soil Salinity Research Institute, Karnal, Haryana and The Director, Indian Agricultural Research Institute, New Delhi, Delhi would be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.

7. PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. A.SR/S9/Z-08/2018 dated 30 Jan 2019. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET.

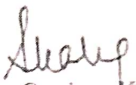
8. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG (DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organizations is called upon to do so.

9. If the Research Project involves biological resources, the obligations under the Biological Diversity Act 2002 as applicable shall be complied with by the Project Investigator, the details of such obligations can be accessed at www.nbaindia.org

10. If this project works requires any Statutory Clearance (such as Ethical Committee Clearance, Informed Consent, Animal Ethics Committee Clearance, Institutional Bio-safety Committee Clearance, National Biodiversity Authority approval etc.), Project investigator(s) and Host Institution(s) shall compulsorily comply the same before undertaking such activities.

11. This issues, under the power delegated to this Department and with the concurrence of IFD vide their SAN No. 102/IFD/SAN/1005/2019-20 dated 17.07.2019.

12. This sanction order has been noted at serial no. 25 in the Register of Grants.


(Dr. Sanjay Kalia)
Scientist 'E'

Dated: 05th September, 2019

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Development of prolific baby corn hybrids through marker-assisted introgression of teosinte branched-1 (tb1) allele from teosinte accession (Zea mays ssp. parviglumis)" for a period of 2 Year 0 Month at a total cost of Rs. 6134296/- (Rupees Sixty One Lakhs Thirty Four Thousand Two Hundred and Ninety Six Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : Development of prolific baby corn hybrids through marker-assisted introgression of teosinte branched-1 (tb1) allele from teosinte accession (Zea mays ssp. parviglumis)

2.2 Details of the Investigators:

Dr. FIROZ HOSSAIN,

Senior Scientist, Indian Agricultural Research Institute,
Pusa Campus, New Delhi

CO-PI:

Dr. Vignesh Muthusamy,
Scientist Senior Scale
Indian Agricultural Research Institute,
New Delhi - 110012, Delhi

Dr. Rajkumar U Zunjare,
Scientist
Indian Agricultural Research Institute,
New Delhi - 110012, Delhi

2.3 Objectives:

1. To introgress teosinte branched-1 (tb-1) allele into elite maize inbreds using marker-assisted backcross breeding approach.
2. To evaluate the tb-1 introgressed inbreds and reconstituted hybrids for prolificacy and agronomic traits.

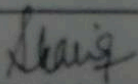
2.4 Time Schedule:

The duration of the project is 2 Year 0 Month from the date of this sanction order.

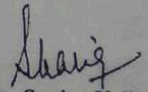
2.5 Project Cost:

The total cost of the project is Rs. 6134296/- (Rupees Sixty One Lakhs Thirty Four Thousand Two Hundred and Ninety Six Only) as per details given below:

Budget Head	Year I	Year II	Total(Rs.)
Equipment	750000.00		750000.00
Manpower	1329648.00	1329648.00	2659296.00
Overhead	100000.00	100000.00	200000.00
Travel	50000.00	50000.00	100000.00
Consumables	2050000.00	175000.00	2225000.00
Contingency	100000.00	100000.00	200000.00
Total (Rs.)	4379648.00	1754648.00	6134296.00


डॉ. संजय कालिया / Dr. Sanjay Kalra
वैज्ञानिक ए / Scientist E
बायोटेक्नोलॉजी विभाग / Dept. of Biotechnology
विज्ञान और प्रौद्योगिकी विभाग / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India

8. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG (DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organizations is called upon to do so.
9. If the Research Project involves biological resources, the obligations under the Biological Diversity Act 2002 as applicable shall be complied with by the Project Investigator, the details of such obligations can be accessed at www.nbaindia.org
10. If this project works requires any Statutory Clearance (such as Ethical Committee Clearance, Informed Consent, Animal Ethics Committee Clearance, Institutional Bio-safety Committee Clearance, National Biodiversity Authority approval etc.), Project investigator(s) and Host Institution(s) shall compulsorily comply the same before undertaking such activities.
11. This issues, under the power delegated to this Department and with the concurrence of IFD vide their SAN No. 102/IFD/SAN/ 1615 /2019-2020 dated 05.09.2019.
12. This sanction order has been noted at serial no. 70 in the Register of Grants.

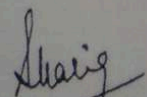

(Dr. Sanjay Kalia)
Scientist 'E'

To,
The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

डॉ. संजय कालिया / Dr. Sanjay Kalia
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
- 2 The Director, Indian Agricultural Research Institute, Pusa Campus, New Delhi, Indian Agricultural Research Institute, Pusa Campus, New Office, New Delhi - 110012, Delhi
- 3 Dr. FIROZ HOSSAIN, Senior Scientist, GENETICS, Indian Agricultural Research Institute, Pusa Campus, New Delhi, ROOM NO. 102, LBS BUILDING, DIVISION OF GENETICS, NEW DELHI, New Delhi - 110012, Delhi
- 4 Dr. Rajkumar U Zunjare, Scientist, GENETICS, Indian Agricultural Research Institute, MAIZE GENETICS UNIT, DIVISION OF GENETICS, IARI, NEW DELHI, New Delhi - 110012, Delhi
- 5 Dr. Vignesh Muthusamy, Scientist Senior Scale, Genetics, Indian Agricultural Research Institute, MAIZE GENETICS UNIT, DIVISION OF GENETICS, IARI, NEW DELHI, New Delhi - 110012, Delhi
- 6 Cash Section, DBT (2 copies).
- 7 Sanction Folder.
- 8 File Copy.


(Dr. Sanjay Kalia)
Scientist 'E'

डॉ. संजय कालिया / Dr. Sanjay Kalia
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi



AGRICULTURAL ENGINEERING DIVISION
INDIAN COUNCIL OF AGRICULTURAL RESEARCH
405, Krishi Anusandhan Bhawan-II, Pusa Campus, New Delhi-110012
Tele Fax: +91-11-25840158

2756
23/12

20/12/19
Date: 09-10-2019

F. No. A. Engg. 27(1)/2019-AE

To

Dr. Pranita Jaiswal
Principal Scientist
CCUBGA, Division of Microbiology
ICAR-Indian Agricultural Research Institute
New Delhi-110012

Sub: Sanction of Extramural Research Project-reg.

Dear Dr. Jaiswal

I am pleased to convey the sanction of ICAR to the research project proposal "Development of hand-held instrument for non-destructive quality testing of mango" submitted by you. This approval is for a period of two years from 01 October 2019 at a total cost of **Rs. 99.47 lakhs (Rupees ninety nine lakhs fourty seven thousand only)**. You must however note that the financial sanction till March 2020 is for **Rs. 82.16 lakhs**. The financial sanction for the rest of the period will be conveyed to you once the budget provision for 2020-21 are cleared.

The expenditure under different heads in each year must be restricted to the amount sanctioned for the purpose during that year as per the Budget estimates attached in **Annexure-I**. Any receipt from the project should to be credited to the Council.

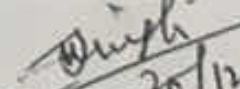
The sanction for the years 2019-2020 and 2020-2021 is as under:

Years	Grant-in-aid Capital (In Rs. Lakhs)	Grant-in-aid General (In Rs. Lakhs)	Total (In Rs. Lakhs)
2019-2020	50.00	32.16	82.16
2020-2021	-	17.31	17.31

The grant is governed by the norms, conditions and guidelines of the scheme "ICAR Extramural Research Project" available on website of ICAR. The objectives and technical programmes as approved by the Project Scrutiny Committee are to be implemented. The continuation of the project and release of subsequent funds will be subject to timely submission of progress reports and statement of expenditure in proper format.

If the grant is acceptable to the institute/University a letter of acceptance may please be sent to the undersigned immediately so the grant will be released.

Yours faithfully


(Kanchan K. Singh)
ADG (Engg.)
20/12/19

Encl: as above

Copy to: The Director, ICAR-IARI, New Delhi-110012

भारतीय कृषि अनुसंधान परिषद
Indian Council of Agricultural Research
राष्ट्रीय कृषि विज्ञान कोष
National Agricultural Science fund (NASF)
भारतीय कृषि अनुसंधान भवन-1, पूसा परिसर, नई दिल्ली-110012
Krishi Anusandhan Bhavan-I, Pusa Campus New Delhi-110012

F. No. NASF/NRM-8018/2019-20/59

Dated: 29.02.2020

To,

The Director,
ICAR-National Rice Research Institute
(NRRRI), Cuttack-753006, Odisha

Subject: Sanction letter for the Research project entitled, "Paddy straw residues management through *in-situ* microbial decomposition with mechanical interventions" under the National Agricultural Science Fund (NASF)

Sir,

The Empowered Committee (EC) of the NASF, considered the proposal on "Paddy straw residues management through *in-situ* microbial decomposition with mechanical interventions" in its 39th meeting held on 18th January, 2020 and approved for implementation under the NASF. The total cost of this project is ₹ 188.16020 lakhs (Rupees One crore eighty eight lakhs sixteen thousand and twenty only) for a period of 3 years (March, 2020 to February 2023). The financial sanction of the competent authority for the project is now being accorded for the period from 1st March 2020 to 31st March 2020. The sanction for the period from 1st April 2020 till the end of the project i.e. 28th February 2023 will be conveyed later. The release of fund will be through PFMS/FMS-MIS and the funded centre need to comply accordingly.

1. Name of the Lead Centre

ICAR-National Rice Research Institute (NRRRI), Cuttack-753006

2. Name & Designation of the Principal Investigator

Dr. P. Panneerselvam, Senior Scientist, ICAR- National Rice Research Institute (NRRRI), Cuttack-753006

3. Names of Cooperating Centre

i. ICAR-Indian Agricultural Research Institute, New Delhi-110012

ii. Punjab Agricultural University (PAU), Ludhiana-141004

iii. CCS Haryana Agricultural University, Hisar-125004

4. Name & Designation of the Cooperating Centre Principal Investigator

i. Dr. Indra Mani, Head & Principal Scientist, ICAR-Indian Agricultural Research Institute, New Delhi-110012

ii. Dr. Sandeep Sharma, Assistant Professor, Punjab Agricultural University (PAU), Ludhiana-141004

iii. Dr. R.S. Garhwal, Assistant Professor, CCS Haryana Agricultural University, Hisar-125004

- (iv) The intellectual properties to be licensed on exclusive basis or non-exclusive basis will be decided by the ICAR depending upon the welfare/gains considerations or public consideration or public welfare embedded in the intellectual properties.
 - (v) Whereas a minimum price for the intellectual properties is to be evaluated, it may not be rigidly adhered to; and the offers made by different parties shall be given due consideration in consultation with the Empowered Committee on the basis of recommendations of ICAR. The spirit behind this should be to commercialize the intellectual properties in the best interest of the investment.
 - (vi) If one or more of the partners (i.e., the Lead or Cooperating Centre) of the Project is (are) interested to commercialize the intellectual properties, it may be given preference over other parties at mutually agreed terms and conditions between the interested partner and the ICAR.
 - (vii) The ICAR will hold the right to use the intellectual property for non-commercial purposes in public interest.
 - (viii) The services of the inventor(s) rendered subsequent to the transfer of intellectual property may entail earning of charges/fees etc., distribution of which will be as per the clause stated in para 4(ii) above.
 - (ix) It will not be incumbent upon the ICAR to protect every Intellectual Property (IP) generated from the Project. On refusal by the ICAR to own the IP, the inventor(s) shall be free to protect it at their own cost provided ICAR has no objection to it in public interest.
6. The PI and the CCPI will not be removed/ transferred from the project without the prior consent of the Empowered Committee of the NASF.
 7. The decision of the Empowered Committee of the NASF will be final in all matters of the project.

Receipt of this letter may please be acknowledged. The PI is requested to make copies of the sanction letter along with all the Annexures and distribute the same to the CCPI(s) and the heads of the Lead and Cooperating Centers.

Yours faithfully,


(Sanjeev Saxena)
ADG (NASF)

Copy for information and necessary action to:

- (i) PI/CCPIs of the project
- (ii) Heads of Cooperating Centres
- (iii) F&AO, NASF Secretariat
- (iv) Office copy

8/11/2019



2403
7/11

भारतीय कृषि अनुसंधान परिषद
Indian Council of Agricultural Research
राष्ट्रीय कृषि विज्ञान कोष
National Agricultural Science fund (NASF)
भारतीय कृषि अनुसंधान भवन-1, पूसा परिसर, नई दिल्ली-110012
Krishi Anusandhan Bhavan-1, Pusa Campus New Delhi-110012

F. No. NASF/ABAP-8002/2019-20/158

Dated: 28/x/2019

To,

✓ The Director,
ICAR-Indian Agricultural Research Institute,
Pusa Campus, New Delhi-110012

Subject: Sanction letter for the Research project entitled, "Genome editing for imparting PRSV resistance" under the National Agricultural Science Fund (NASF)

Sir,

The Empowered Committee (EC) of the NASF considered the proposal on "Genome editing for imparting PRSV resistance" in its 38th meeting held on 19th September, 2019 and approved for implementation under the NASF. The total cost of this project is ₹ 146.17252 Lakh (Rupees One crore forty six lakhs seventeen thousand two hundred and fifty two only) for a period of 3 years (November, 2019 to October, 2022). The financial sanction of the competent authority for the project is now being accorded for the period from 1st November 2019 to 31st March 2020. The sanction for the period from 1st April 2020 till the end of the project i.e. 31st October 2022 will be conveyed later. The release of fund will be through PFMS/FMS-MIS and the funded centre need to comply accordingly.

1. Name of the Lead Centre

ICAR-Indian Agricultural Research Institute, Pusa Campus, New Delhi-110012

2. Name & Designation of the Principal Investigator

Dr. Anirban Roy, Principal Scientist, Division of Plant Pathology, ICAR-IARI, New Delhi-110012

3. Names of Cooperating Centre

i. ICAR-Indian Institute of Horticultural Research, Bengaluru -560089

4. Name & Designation of the Cooperating Centre Principal Investigator

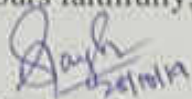
iii. Dr. M. Krishna Reddy, Principal Scientist & Head (i/c), Division of Plant Pathology, ICAR-IIHR, Bengaluru-560089

The details of the project are given in the project document in Annexure I. The head-wise and year-wise budget (both consolidated and for each partner) are given in the Annexures II to VII.

- (iv) The intellectual properties to be licensed on exclusive basis or non-exclusive basis will be decided by the ICAR depending upon the welfare/gains considerations or public consideration or public welfare embedded in the intellectual properties.
- (v) Whereas a minimum price for the intellectual properties is to be evaluated, it may not be rigidly adhered to; and the offers made by different parties shall be given due consideration in consultation with the Empowered Committee on the basis of recommendations of ICAR. The spirit behind this should be to commercialize the intellectual properties in the best interest of the investment.
- (vi) If one or more of the partners (i.e., the Lead or Cooperating Centre) of the Project is (are) interested to commercialize the intellectual properties, it may be given preference over other parties at mutually agreed terms and conditions between the interested partner and the ICAR.
- (vii) The ICAR will hold the right to use the intellectual property for non-commercial purposes in public interest.
- (viii) The services of the inventor(s) rendered subsequent to the transfer of intellectual property may entail earning of charges/fees etc., distribution of which will be as per the clause stated in para 4(ii) above.
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6. The PI and the CCPI will not be removed/ transferred from the project without the prior consent of the Empowered Committee of the NASF.
- 7 The decision of the Empowered Committee of the NASF will be final in all matters of the project.

Receipt of this letter may please be acknowledged. The PI is requested to make copies of the sanction letter along with all the Annexures and distribute the same to the CCPI(s) and the heads of the Lead and Cooperating Centers.

Yours faithfully,


(Sanjeev Saxena)
ADG (NASF)

Copy for information and necessary action to:

- (i) PI/CCPIs of the project
- (ii) Heads of Cooperating Centres
- (iii) F&AO, NASF Secretariat
- (iv) Office copy



भारतीय कृषि अनुसंधान परिषद
Indian Council of Agricultural Research
राष्ट्रीय कृषि विज्ञान कोष
National Agricultural Science fund (NASF)
भारतीय कृषि अनुसंधान भवन-1, पूसा परिसर, नई दिल्ली-110012
Krishi Anusandhan Bhavan-I, Pusa Campus New Delhi-110012

F. No. NASF/NRM-8016/2019-20/60

Dated: 29.02.2020

To,

The Director,
ICAR-Indian Agricultural Research Institute,
Pusa Campus, New Delhi-110012

Subject: Sanction letter for the Research project entitled, "Developing precision nutrient management protocols for rice-wheat and rice-maize systems in Indo-Gangetic Plains" under the National Agricultural Science Fund (NASF)

Sir,

The Empowered Committee (EC) of the NASF, considered the proposal on "Developing precision nutrient management protocols for rice-wheat and rice-maize systems in Indo-Gangetic Plains" in its 39th meeting held on 18th January, 2020 and approved for implementation under the NASF. The total cost of this project is ₹ 201.38396 Lakh (Rupees two crore one lakh thirty eight thousand three hundred and ninety six only) for a period of 3 years (March, 2020 to February, 2023). The financial sanction of the competent authority for the project is now being accorded for the period from 1st March 2020 to 31st March 2020. The sanction for the period from 1st April 2020 till the end of the project i.e. 28th February 2023 will be conveyed later. The release of fund will be through PFMS/FMS-MIS and the funded centre need to comply accordingly.

1. Name of the Lead Centre

ICAR-Indian Agricultural Research Institute, Pusa Campus, New Delhi-110012

2. Name & Designation of the Principal Investigator

Dr. V.K. Singh, Principal Scientist and Head (Division of Agronomy), ICAR-Indian Agricultural Research Institute, Pusa Campus, New Delhi-110012

3. Names of Cooperating Centre

- ICAR-Research Complex for Eastern Region, Patna, Bihar
- ICAR-Indian Institute of Farming System Research, Modipuram, Meerut-250110


4. Name & Designation of the Cooperating Centre Principal Investigator

- Dr. J.S. Mishra, Principal Scientist and Head (Division of Crop Research), ICAR-Research Complex for Eastern Region, Patna, Bihar
- Dr. R.P. Mishra, Principal Scientist, ICAR-Indian Institute of Farming System Research, Modipuram, Meerut-250110

- (iv) The intellectual properties to be licensed on exclusive basis or non-exclusive basis will be decided by the ICAR depending upon the welfare/gains considerations or public consideration or public welfare embedded in the intellectual properties.
- (v) Whereas a minimum price for the intellectual properties is to be evaluated, it may not be rigidly adhered to; and the offers made by different parties shall be given due consideration in consultation with the Empowered Committee on the basis of recommendations of ICAR. The spirit behind this should be to commercialize the intellectual properties in the best interest of the investment.
- (vi) If one or more of the partners (i.e., the Lead or Cooperating Centre) of the Project is (are) interested to commercialize the intellectual properties, it may be given preference over other parties at mutually agreed terms and conditions between the interested partner and the ICAR.
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Receipt of this letter may please be acknowledged. The PI is requested to make copies of the sanction letter along with all the Annexures and distribute the same to the CCPI(s) and the heads of the Lead and Cooperating Centers.

Yours faithfully,


(Sanjeev Saxena)
ADG (NASF)

Copy for information and necessary action to:

- (i) PI/CCPIs of the project
- (ii) Heads of Cooperating Centres
- (iii) F&AO, NASF Secretariat
- (iv) Office copy



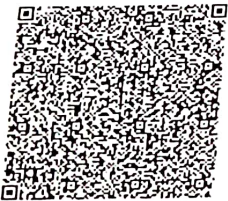
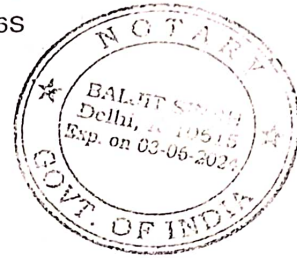
सत्यमेव जयते

INDIA NON JUDICIAL

Government of National Capital Territory of Delhi

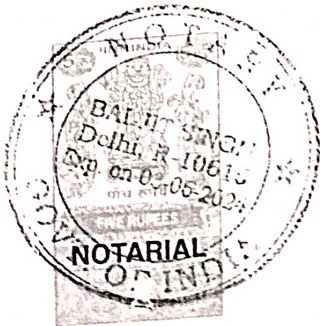
e-Stamp

Certificate No. : IN-DL87009006062117S
Certificate Issued Date : 30-Sep-2020 03:38 PM
Account Reference : IMPACC (IV)/ dI927103/ DELHI/ DL-DLH
Unique Doc. Reference : SUBIN-DLDL92710381404520223096S
Purchased by : DR GOPALA KRISHNAN S
Description of Document : Article Others
Property Description : Not Applicable
Consideration Price (Rs.) : 0
(Zero)
First Party : DR GOPALA KRISHNAN S
Second Party : DBT
Stamp Duty Paid By : DR GOPALA KRISHNAN S
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



Please write or type below this line.....

DOCUMENT
ATTACHED



B. Gopala Krishna

Hecha

Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at www.indiastamp.com or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App readers should inform.
2. The onus of checking the legitimacy is on the user of the certificate.
3. In case of any discrepancy please inform the Competent authority.

MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on this Thirtieth day of September Two Thousand and Twenty BY AND BETWEEN President of India, acting through the Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, hereinafter referred to as the 'DBT' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART;

ICAR-Indian Agricultural Research Institute, New Delhi-110012, a constituent of the Indian Council of Agricultural Research, a society under the Societies Registration Act 1860, having its registered office at New Delhi-12, hereinafter referred to as ICAR-IARI, New Delhi (which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART;

WHEREAS DBT being desirous of Genetics and Plant Breeding (Agriculture & Allied Area), decided to support a project submitted by Dr. Gopala Krishnan S., Principal Scientist, Division of Genetics, ICAR-IARI, New Delhi for the attainment of the objectives, hereinafter described in the Annexure I annexed hereto;

This Memorandum of Agreement (MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the "Imparting Sheath Blight Disease Tolerance in Rice".

NOW THE PARTIES HERE TO AGREE AS FOLLOWS:

1.0 ROLE OF DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI

To provide funds to the extent of Rs 80.39272 lakhs (Rs. Eighty Lakhs Thirty Nine Thousand Two Hundred and Seventy Two Only) over a period of Three years from the date of sanction 27.06.2019 of the project, to ICAR-IARI, New Delhi for undertaking activities as detailed in Annexure-I. Details of the funds to be provided are given in Annexure-II.

2.0 ROLE OF ICAR-IARI, NEW DELHI (Institute/ NGO)

2.1 To provide their contribution of NIL for NIL years from date of sanction of the project as detailed in Annexure-II. (if a jointly supported Project).



G. Gopala Krishnan
Sd/-

9.0 GOVERNING LAW

This Contract shall be governed by the Law of India for the time being in force.

IN WITNESS WHEREOF the parties hereto have signed, sealed and delivered this Agreement on the day, month and year first above written in presence of:

Witnesses:

1.

2.

Signed by:

(Designation)

For and on behalf of The
President of India

Witnesses:

1.



डॉ. के. के. विनोद / Dr. K. K. Vinod
प्रधान वैज्ञानिक / Principal Scientist
भा.कृ.अ.प.-भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
आनुवंशिकी संभाग / Division of Genetics
नई दिल्ली / New Delhi-110012

Signed by:

Dr. Gopala Krishnan S.
Principal Investigator

2.

डा. रंजित कुमार इल्लूर / Dr. Ranjith Kumar Ellur
वैज्ञानिक / Scientist
आनुवंशिकी संभाग
Division of Genetics
भा.कृ.अ.प.-भा.कृ.अ.सं., पूसा
I.C.A.R.-I.A.R.I., Pusa
नई दिल्ली / New Delhi-110012



डॉ. अशोक कुमार सिंह / Dr. Ashok Kumar Singh
संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)
भा.कृ.अ.प. - भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली-110012 / New Delhi - 110012
Dr. A.K. Singh
Joint Director (Research)
ICAR-IARI, New Delhi



ATTESTED

BALJIT SINGH
NOTARY DELHI, R-10615
Government of India

30 SEP 2020

Signed/Put J.T. in my presence
Adv. Rajesh Kumar (R-10615/14)
129, Rajendra Bhaswan, Rajendra Place,
New Delhi-08. ☎ +91-9988589883



सत्यमेव जयते

INDIA NON JUDICIAL

Government of National Capital Territory of Delhi

e-Stamp

Certificate No. : IN-DL00659029382246R
Certificate Issued Date : 24-Dec-2019 02:36 PM
Account Reference : IMPACC (IV)/ dl990303/ DELHI/ DL-DLH
Unique Doc. Reference : SUBIN-DL00659029382246R
Purchased by : DR RENU PANDEY
Description of Document : Article 5 General Agreement
Property Description : Not Applicable
Consideration Price (Rs.) : 0
(Zero)
First Party : DR RENU PANDEY
Second Party : DEPARTMENT OF BIOTECHNOLOGY
Stamp Duty Paid By : DR RENU PANDEY
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



Please write or type below this line
MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on this **Twenty Fourth day of December Two thousand and Nineteen** BY AND BETWEEN President of India, acting through, Adviser, Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, hereinafter referred to as the 'DBT' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART;

AND

Indian Agricultural Research Institute (Deemed to be University), a society under the Societies Registration Act – 1860, having its registered office at Pusa

Statutory Alert:

1. The authenticity of this Stamp Certificate should be verified at "www.shcilestamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority

-1-

डॉ. रेनु पाण्डे / DR. RENU PANDEY
प्रधान वैज्ञानिक / Professor Scientist
पादप कार्यकारी विभाग / Plant Physiology
भारतीय कृषि अनुसंधान संस्थान
Indian Agricultural Research Institute

Campus, New Delhi 110012, hereinafter referred to as IARI, (which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART;

WHEREAS DBT being desirous of "Biotechnological Approach for Crop Improvement" decided to support a project submitted by Dr. RENU PANDEY, Principal Scientist, Division of Plant Physiology, IARI for the attainment of the objectives, hereinafter described in the Annexure I annexed hereto;

This Memorandum of Agreement (MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the "Site-Directed Mutagenesis of Low-Affinity Nitrate Transporter Gene for Improving Nitrogen Uptake Efficiency in Aerobic Rice".

NOW THE PARTIES HERETO AGREE AS FOLLOWS: -

1.0 ROLE OF DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI

To provide funds to the extent of Rs. 166,55,560.00 (Rupees One Crore Sixty-Six Lakhs Fifty-Five Thousand Five Hundred and Sixty Only) over a period of FIVE years from the date of sanction of the project, to IARI for undertaking activities as detailed in Annexure 1. Details of the funds to be provided are given in Annexure II.

2.0. ROLE OF IARI, NEW DELHI

- 2.1. To provide their contribution of Rs. NIL for NIL years from date of sanction of the project as detailed in Annexure – II. (if a jointly supported project)
- 2.2. To provide existing facilities as mentioned in the project document.
- 2.3. To be responsible for accomplishing objectives identified and activities listed.
- 2.4. To allow the Scientists authorized by DBT to work with the Research & Development team of the center in all stages of process development and production.
- 2.5. To recruit all scientific and non-scientific staff as sanctioned by DBT.
- 2.6. To prepare and submit all periodical reports and other documents that would be required by DBT.
- 2.7. To maintain a separate audit head of account for the grants received from DBT for the project.
- 2.8. To submit an annual audited statement of expenditure incurred under the project.
- 2.9. To ensure effective utilization of the grant given by DBT for the purpose for which it was granted and to ensure timely progress of project work.
- 2.10. The manpower, both scientific and non-scientific, recruited shall be purely on contractual terms & conditions such that the contract for engagement of the manpower shall run concurrently with the said project period only.

Renu Pandey

डॉ. रेणु पाण्डे / Dr. RENU PANDEY
प्रधान वैज्ञानिक / Principal Scientist
शरण कृषिी संशोधन / Division of Plant Physiology
भारतीय कृषि अनुसंधान संस्थान
Indian Agricultural Research Institute
नई दिल्ली-110012

8.0 ARBITRATION

In the event of any question, dispute or difference whatsoever arising between the parties to this Agreement out of or relating to the construction, meaning, scope, operation or effect of this Agreement or the validity of the breach thereof shall be referred to an Arbitrator to be appointed by mutual consent of both the parties herein. If the parties cannot agree on the appointment of the Arbitrator within a period of one month from the notification by one party to the other of existence of such dispute, then the Arbitrator shall be nominated by the Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. The provisions of the Arbitration and Conciliation Act, 1996 will be applicable and the award made thereunder shall be final and binding upon the parties hereto, subject to legal remedies available under the law. Such differences shall be deemed to be a submission to arbitration under the Indian Arbitration and Conciliation Act, 1996, or of any modifications or reenactments thereof.

9.0. GOVERNING LAW

This Contract shall be governed by the Law of India for the time being in force.

IN WITNESS WHEREOF the parties hereto have signed, sealed and delivered this Agreement on the day, month and year first above written in presence of:

Witnesses:

1.

Signed by -----
(Designation)

2.

For and on behalf of
The President of India

Witnesses:

1. *Anjali*

Dr. ANJALI ANAND
Principal Scientist
Division of Plant Physiology
I.A.R.I., New Delhi-110012

Signed by *AKR*
(Designation)

For and on behalf of
Indian Agricultural Research Institute,
New Delhi 110012

डॉ. अशोक कुमार सिंह / Dr. Ashok Kumar Singh
संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)
भा.कृ.अ.प. - भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली-110012 / New Delhi - 110012

2. *Archana*
डा. अर्चना वाट्स / Dr. Archana Watts
वैज्ञानिक / Scientist
पादप कार्यिकी संभाग
Division of Plant Physiology
भा.कृ.अ.प.-भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-12
ICAR-Indian Agricultural Research Institute, New Delhi-12

Pandey
डा. रेणु पण्डे / Dr. Renu Pandey
आर्य वैज्ञानिक / Principal Scientist
पादप कार्यिकी संभाग / Division of Plant Physiology
भारतीय कृषि अनुसंधान संस्थान
Indian Agricultural Research Institute
नई दिल्ली-12 / New Delhi-12

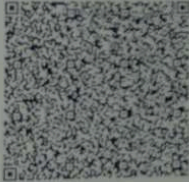


सत्यमेव जयते

INDIA NON JUDICIAL
Government of National Capital Territory of Delhi

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Certificate No.	: IN-DL09633551570069S
Certificate Issued Date	: 14-Jan-2020 10:41 AM
Account Reference	: IMPACC (IV)/ dl990303/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL09633551570069S
Purchased by	: G PRAKASH
Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: THE PRESIDENT OF INDIA
Second Party	: ICAR INDIAN AGRICULTURAL RESEARCH INSTITUTE
Stamp Duty Paid By	: ICAR INDIAN AGRICULTURAL RESEARCH INSTITUTE
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



Please write or type below this line.....

MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on this 13th January day of Two thousand and twenty BY AND BETWEEN President of India, acting through Secretary, Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, hereinafter referred to as the 'DBT' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART;

AND

Received by
G. Prakash
17/1/2020

डॉ० जी० प्रकाश
DR. G. PRAKASH
वैज्ञानिक / Scientist
पादप रोग विज्ञान संभाग
Division of Plant Pathology
भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-1
ICAR Indian Agricultural Research Institute, New Delhi, I

Statutory Alert:

1. The authenticity of this Stamp Certificate should be verified at 'www.indwestamp.com'. Any discrepancy in the details on this Certificate should be reported to the Competent Authority.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

पादप रोग विज्ञान संभाग

effect of this Agreement or the validity of the breach thereof shall be referred to an Arbitrator to be appointed by mutual consent of both the parties herein. If the parties cannot agree on the appointment of the Arbitrator within a period of one month from the notification by one party to the other of existence of such dispute, then the Arbitrator shall be nominated by the Secretary, Department of Legal Affairs, Ministry of Law & Justice, and Government of India. The provisions of the Arbitration and Conciliation Act, 1996 will be applicable and the award made thereunder shall be final and binding upon the parties hereto, subject to legal remedies available under the law. Such differences shall be deemed to be a submission to arbitration under the Indian Arbitration and Conciliation Act, 1996, or of any modifications or reenactments thereof.

9.0. GOVERNING LAW

This Contract shall be governed by the Law of India for the time being in force.

IN WITNESS WHEREOF the parties hereto have signed, sealed and delivered this Agreement on the day, month and year first above written in presence of:

Witnesses:

- 1.
- 2.

Signed by -----

(Designation)

For and on behalf of The President of India

Witnesses:

- 1.

[Signature]
 Dr. V. SHANMUGAM
 प्रधान वैज्ञानिक / Principal Scientist
 पादप रोग विज्ञान संभाग
 Division of Plant Pathology
 भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-12
 ICAR-Indian Agricultural Research Institute, New Delhi-110012

Signed by -----

Principal Investigator, Division of Plant Pathology

ICAR-IARI, New Delhi
 प्रधान वैज्ञानिक / Principal Scientist
 पादप रोग विज्ञान संभाग
 Division of Plant Pathology
 भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-12
 ICAR-Indian Agricultural Research Institute, New Delhi-12

- 2.

[Signature]
 19.01.20
 रोबिन गोगोई
 ROBIN GOGOI
 प्रधान वैज्ञानिक / Principal Scientist
 पादप रोग विज्ञान संभाग
 Division of Plant Pathology
 भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-12
 ICAR-Indian Agricultural Research Institute, New Delhi-12

Signed by -----

Head, Division of Plant Pathology

ICAR-IARI, New Delhi
 प्रधान वैज्ञानिक / Dr. Kamini Aggarwal
 पादप रोग विज्ञान संभाग
 Division of Plant Pathology
 भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-12
 I.A.R.I., New Delhi - 12

[Signature]
 Signed by Joint Director (Research)
 For and on behalf of ICAR-IARI, New Delhi

Joint Director (Research) / Dr. Anwar Hussain Singh
 Joint Director (Research) / Joint Director (Plant Pathology)
 भारतीय कृषि अनुसंधान संस्थान
 ICAR-Indian Agricultural Research Institute
 नई दिल्ली-110012 / New Delhi - 110012



सत्यमेव जयते

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Government of National Capital Territory of Delhi

e-Stamp

Certificate No.	: IN-DL45041243358034T
Certificate Issued Date	: 11-Feb-2021 11:36 AM
Account Reference	: IMPACC (IV)/ dl852303/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL85230391704738102714T
Purchased by	: DR GOPALA KRISHNAN S
Description of Document	: Article Others
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: DR GOPALA KRISHNAN S
Second Party	: Not Applicable
Stamp Duty Paid By	: DR GOPALA KRISHNAN S
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



Please write or type below this line

Dr. Gopala Krishnan

ALCH

MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on this **Thirteenth day of January Two Thousand and twenty** BY AND BETWEEN President of India, acting through the Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, hereinafter referred to as the 'DBT' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART;

ICAR-Indian Agricultural Research Institute, New Delhi 110012, a constituent of the Indian Council of Agricultural Research, a society under the Societies Registration Act 1860, having its registered office at New Delhi — 12, hereinafter referred to as ICAR-IARI, New Delhi (which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART;

WHEREAS DBT being desirous of **Genetics and Plant Breeding (Agriculture & Allied Area)**, decided to support a project submitted by **Dr. Gopala Krishnan S., Principal Scientist, Division of Genetics, ICAR-IARI, New Delhi** for the attainment of the objectives, hereinafter described in the Annexure I annexed hereto;

This Memorandum of Agreement (MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the **“Marker assisted pyramiding of three major genes (Pi54, Pi1, Pita) for blast resistance into elite rice varieties, Bhalum 5 and Shahsarang”**

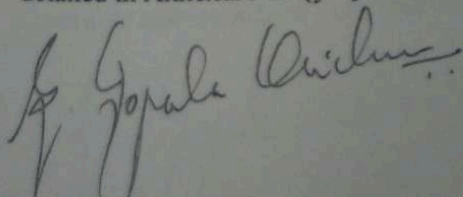
NOW THE PARTIES HERE TO AGREE AS FOLLOWS:

1.0 ROLE OF DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI

To provide funds to the extent of Rs 23.16992 lakhs (Rs. Twenty Three Lakhs sixteen Thousand Nine Hundred and Ninety Two Only) over a period of Three years from the date of sanction 13.01.2020 of the project, to ICAR-IARI, New Delhi for undertaking activities as detailed in Annexure-I. Details of the funds to be provided are given in Annexure-II.

2.0 ROLE OF ICAR-IARI, NEW DELHI (Institute/ NGO)

2.1 To provide their contribution of NIL for NIL years from date of sanction of the project as detailed in Annexure-II. (if a jointly supported Project).





9.0 GOVERNING LAW

This Contract shall be governed by the Law of India for the time being in force.
IN WITNESS WHEREOF the parties hereto have signed, sealed and delivered this Agreement on the day, month and year first above written in presence of:

Witnesses:

1.

Signed by:

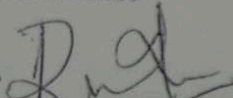
2.

(Designation)

For and on behalf of The
President of India

Witnesses:

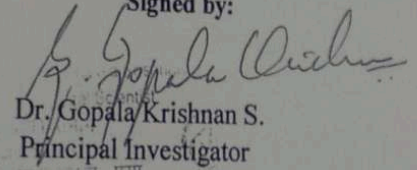
1.



डा. रंजित कुमार इल्लूर / Dr. Ranjith Kumar Ellur
वैज्ञानिक / Scientist
आनुवंशिकी संभाग
Division of Genetics
भा.कृ.अ.प.-भा.कृ.अ.सं., पूसा
I.C.A.R.-I.A.R.I., Pusa
नई दिल्ली / New Delhi-110012



Signed by:

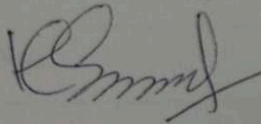


Dr. Gopala Krishnan S.
Principal Investigator

भा.कृ.अ.प.-भा.कृ.अ.सं., पूसा
I.C.A.R.-I.A.R.I. Pusa
नई दिल्ली / New Delhi-110012



2.



K. Vinod
वैज्ञानिक / Scientist
आनुवंशिकी संभाग
Institute of Agricultural Research
भा.कृ.अ.प.-भा.कृ.अ.सं., पूसा
I.C.A.R.-I.A.R.I., Pusa
नई दिल्ली / New Delhi-110012



Dr. A.K. Singh
Joint Director (Research)
ICAR-IARI, New Delhi

डॉ. अशोक कुमार सिंह / Dr. Ashok Kumar
संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)
भा.कृ.अ.प.-भा.कृ.अ.सं., पूसा
I.C.A.R.-I.A.R.I., Pusa
नई दिल्ली-110012 / New Delhi-110012



संघीय गणराज्य

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Government of National Capital Territory of Delhi

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Certificate No.
 Certificate Issue Date
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 Description of Document
 Property Description
 Consideration Price (Rs.)
 From Party
 To Party
 Stamp Duty Paid By
 Stamp Duty Amount(Rs.)

NS12000014077818
 08-Nov-2021 10:08 AM
 MP/AD2 (17) ANANDU DELHI DL-004
 BUNB DL21000014077818
 DIRECTOR IAR PUSA NEW DELHI
 Article 84 Memorandum of Settlement
 Not Applicable
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 0
 DIRECTOR IAR PUSA NEW DELHI
 DEPARTMENT OF BIOTECHNOLOGY MINISTRY OF SCIENCE AND
 TECHNOLOGY NEW DELHI
 DIRECTOR IAR PUSA NEW DELHI
 100
 (One Hundred only)



Please write e-type below this line.

MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on this 6th day of November Two thousand and nineteen BY AND BETWEEN President of India, acting through, Advisor, Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, hereinafter referred to as the "DPT" (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART;

AND

ICAR-Indian Agricultural Research Institute (IARI), New Delhi a constituent institute of the Indian Council of Agricultural Research (ICAR), a society under the Societies Registration Act - 1860, having its registered office in/ at New Delhi, hereinafter referred to

Statutory Alert

1. The authenticity of this Stamp certificate should be verified at least thrice during year of validity of Stamp. Make use of Stamp Verification facility in the details of this Certificate and its details in the website "Stamp Verification" system.
2. The user of checking the legitimacy is on the user of the certificate.
3. In case of any discrepancy please inform the Controller Authority.

(Signature)

as IARI (which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART;

WHEREAS DBT being desirous of "Development of prolific babycorn hybrids through marker-assisted introgression of *teosinte branched-1(tb1)* allele from teosinte accession (*Zea mays ssp. parviglumis*)" decided to support a project submitted by Dr. Firoz Hossain, Principal Investigator, IARI, New Delhi for the attainment of the objectives, hereinafter described in the Annexure I annexed hereto;

This Memorandum of Agreement (MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the DBT project titled "Development of prolific babycorn hybrids through marker-assisted introgression of *teosinte branched-1(tb1)* allele from teosinte accession (*Zea mays ssp. parviglumis*)"

NOW THE PARTIES HERETO AGREE AS FOLLOWS:-

1.0 . ROLE OF DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI

To provide funds to the extent of Rs. 61,34,296.00 over a period of two years from the date of sanction of the project (05.09.2019), to Dr. Firoz Hossain, IARI, New Delhi for undertaking activities as detailed in Annexure I. Details of the funds to be provided are given in Annexure II.

2.0 ROLE OF ICAR-IARI, New Delhi (Institute)

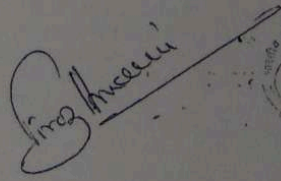
- 2.1. To provide their contribution of NIL for NIL years from date of sanction of the project as detailed in Annexure – II. (if a jointly supported project)
- 2.2. To provide existing facilities as mentioned in the project document.
- 2.3. To be responsible for accomplishing objectives identified and activities listed.
- 2.4. To allow the Scientists authorized by DBT to work with the Research & Development team of the center in all stages of process development and production.
- 2.5. To recruit all scientific and non-scientific staff as sanctioned by DBT.
- 2.6. To prepare and submit all periodical reports and other documents that would be required by DBT.
- 2.7. To maintain a separate audit head of account for the grants received from DBT for the project.
- 2.8. To submit an annual audited statement of expenditure incurred under the project.
- 2.9. To ensure effective utilization of the grant given by DBT for the purpose for which it was granted and to ensure timely progress of project work.
- 2.10. The manpower, both scientific and non-scientific, recruited shall be purely on contractual terms & conditions such that the contract for engagement of the manpower shall run concurrently with the said project period only.

3.0 DURATION OF PROJECT

- 3.1 Duration of project shall be two years from the date the Project has been sanctioned by DBT.

4.0 RIGHTS OF OWNERSHIP/TECHNOLOGY TRANSFER AND UTILIZATION

MAH





डॉ. फिरोज होसैन
Dr. Firoz Hossain
प्रधान अन्वेषक (मक्का)
Principal Investigator (Maize)
आनुवंशिकी संगम / Division of Genetics
भा.कृ.अ.पं.-भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Instt.
पूसा, नई दिल्ली-110012
Pusa, New Delhi-110012

resource at the time of completion or termination of project, will not be the concern/responsibility of the Govt. of India. The Organisation may make reservations for Scheduled Castes, Schedule Tribes etc. in the human resource to be engaged for the project in accordance with the instruction issued by the Govt. of India from time to time.

19. The Deptt. of Biotechnology reserves the right to terminate the grant at any stage and also to recover the amounts already paid if it is convinced that the grant has not been properly utilized or the work on the project has been suspended for any unduly long period or appropriate progress is not being made.
20. The project will become operative with effect from the date of release of the first installment for the project.
21. If the Investigator to whom a grant for a project has been sanctioned leaves the institution where the project is being implemented, he shall submit five copies of complete and detailed report of the work done by him on the project and the money spent till the date of his/her release and shall also arrange to refund the unspent balance, if any.
22. The organisation should maintain subsidiary accounts of the Govt. of India grant and furnish it to the Audit Officer as and when the recurring and non-recurring expenditure exceeds the limits of Rs. 5.00 lakhs.

ASH

**Signature of Executive Authority of Institute/
University With seal**

Dr. Ashok Kumar Singh
Joint Director (Research)

ICAR-Indian Agricultural Research Institute
New Delhi-110012

Date :

Firoz Hossain

Signature and stamped of Principal Investigator :

Date : 06.11.2020

डॉ. फिरोज होसैन
Dr. Firoz Hossain
प्रधान अन्वेषक (मकका)
Principal Investigator (Maize)
माककानुप संशोधन विभाग / Division of Maize
भाकूअनुप-भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
पुसा, नई दिल्ली-110012
Pusa, New Delhi-110012

Dr. Rajkumar Uthappa

डॉ. राजकुमार उत्तमराव उथप्पारे

Dr. Rajkumar Uthappa Zare
वैज्ञानिक / Scientist

अनुवांशिकी विज्ञान संगम / Division of Genetics

भाकूअनुप-भारतीय कृषि अनुसंधान संस्थान

ICAR-Indian Agricultural Research Institute

पुसा, नई दिल्ली-110012 / Pusa, New Delhi-110012

Dr. Vignesh Muthusamy

Signature and stamped of Co-Investigator

डॉ. विग्नेश मुथुसामी
Dr. Vignesh Muthusamy
वैज्ञानिक / Scientist

अनुवांशिकी संगम / Division of Genetics

भाकूअनुप-भारतीय कृषि अनुसंधान संस्थान

ICAR-Indian Agricultural Research Institute

पुसा, नई दिल्ली-11/Pusa, New Delhi-12



Date : 06.11.2020

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality" under mission programme of "Characterisation of Genetic Resources" for a period of 5 Years at a total cost of Rs.393174460.00 (Rupees thirty nine crore thirty one lakh seventy four thousand four hundred and sixty only) as per details in Para's below:

2. The Project:

2.1 **Title:** Characterisation of Genetic Resources: Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality

2.2 **Project Coordinator:** Dr. Kuldeep Singh, NBPGR, New Delhi.

2.3 **Project Co-coordinator:** Dr. Sundeep Kumar, NBPGR, New Delhi.

2.4 **Principal Investigators and Coordinators of the Sub-projects:**

A. **Sub Project - 1:** Germplasm genomics for trait discovery: Dr. Sundeep Kumar (Coordinator), NBPGR, New Delhi. There are six (06) components in this sub-project:

i. **Component-1:** NBPGR, New Delhi

- PI - Dr. Sundeep Kumar & Dr. Amit K. Singh
- Co-PI - Dr. Jyoti Kumari & Dr. Sherry R. Jacob

ii. **Component-2:** IARI, New Delhi.

- PI - Dr. Kiran B. Galkwad
- Co-PI - Dr. Rajbir Yadav & Dr. S.S. Rathore

iii. **Component-3:** PAU, Ludhiana

- PI - Dr. V.S. Sohu
- Co-PI - Dr. Satinder Kaur, Dr. Praveen Chhuneja & Dr. Achla Sharma

iv. **Component-4:** NIPGR, New Delhi

- PI - Dr. Manoj Prasad
- Co-PI - Dr. Swarup Kumar Parida & Dr. Debasis Chattopadhyay

v. **Component-5:** IASRI, New Delhi.

- PI - Dinesh Kumar
- Co-PI - Dr. UB Angadi, Dr. Sarika, Dr. Mir Asif Iqbal, Dr. D.C. Mishra, Mr. Neeraj Budlakoti & Dr V.R. Akbari

vi. **Component-6:** BISA, Ludhiana

- PI - Dr. Uttam Kumar
- Co-PI - Dr. A. K. Joshi & Dr. P. K. Bhati

B. **Sub Project-2:** Characterization and evaluation of wheat germplasm lines for biotic stress resistance: Dr. Vinod (Coordinator), ICAR-IARI, New Delhi. There are eleven (11) components in this sub-project:

i. **Component-1:** ICAR-IARI, New Delhi

- PI - Dr. S. K. Jha
- Co-PI - Dr. Niharika Malik.

ii. **Component-2:** IARI-RS, Wellington (T.N.)

- PI - Dr. V.K. Vikas

Signature

Signature

Signature

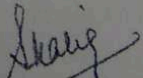
4. Dr. Amit K. S.
5. Dr. Kiran P.
6. Dr. V. S.
7. Dr. M.
8. Dr. T.
9. D.
- 10.
- 11.

7. **Terms & Conditions:**

- i. In case the whole or a part of the amount of the grant in aid is being refunded, an interest at the rate of ten percent per annum thereon shall be recovered.
- ii. The Non-recurring amount should be utilized within 18 months from the date of Sanction Order.
- iii. No Utilization Certificate is pending with the implementing Institute. All the Utilization Certificates due for rendition have been received and accepted by the head of Division/Competent Authority.
- iv. A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA by the grantee institutions and its acceptance by DBT. In case of NGO or Private Institution, MOA signed is mandatory first release.
- v. The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Accounts.
- vi. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions of Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organization is called upon to do so.
- vii. PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. SR/S9/Z-08/2018 dated 30.01.2019. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET. PI can also recruit project staff as per approved institutional/organizational norms or as per DST O.M. SR/S9/Z-05/2019 dated 21.08.2019.

8. **Other Terms & Conditions:**

- i. The Director, NBPGR, New Delhi shall be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.
 - ii. The Director, NBPGR, New Delhi shall be responsible for upload consolidated GFR - 19 (UC) in PFMS.
 - iii. Grant of all participating Institutes/ Universities shall be released to NBPGR, New Delhi. It shall be the responsibility of NBPGR, New Delhi to debit grant to the respective participating components as per grants sanctioned by the DBT within fifteen days.
 - iv. NBPGR, New Delhi shall be responsible for overall account management and timely releases & submission of annual reports.
 - v. All partnering institution shall enter in to a MoA and sign MTAs. However, institutions are required to send MoA as per DBT format within 30 days of order as detailed para 8 (iv).
 - vi. PMU shall function under coordinator of the project and DBT for monitoring /evaluation of research progress and implementation of the project.
 - vii. The accounts of grantee institution shall be open to inspection by the sanctioning authority/audit whenever the institute is called upon to do so by the sanctioning authority.
9. This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No.102/IFD/SAN/3963 /2019-20 dated 29.02.2020.
10. This sanction order has been noted at serial no. 216 in the Register of Grants.


(Dr. Sanjay Kalia)
Scientist 'E'

To,
The Pay & Accounts Officer,
Ministry of Science & Technology
Department of Biotechnology
New Delhi - 110 003.

Copy to:

1. The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002
2. The Director, NBPGR, New Delhi.
3. Dr. Sundeep Kumar, NBPGR, New Delhi.

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality" under mission programme of "Characterisation of Genetic Resources" for a period of 5 Years at a total cost of Rs.393174460.00 (Rupees thirty nine crore thirty one lakh seventy four thousand four hundred and sixty only) as per details in Para's below:

2. The Project:

2.1 Title: Characterisation of Genetic Resources: Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality

2.2 Project Coordinator: Dr. Kuldeep Singh, NBPGR, New Delhi.

2.3 Project Co-coordinator: Dr. Sundeep Kumar, NBPGR, New Delhi.

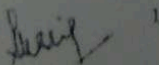
2.4 Principal Investigators and Coordinators of the Sub-projects:

A. Sub Project - I: Germplasm genomics for trait discovery: Dr. Sundeep Kumar (Coordinator), NBPGR, New Delhi. There are six (06) components in this sub-project:

- i. Component-1: NBPGR, New Delhi
 - PI - Dr. Sundeep Kumar & Dr. Amit K. Singh
 - Co-PI - Dr. Jyoti Kumari & Dr. Sherry R. Jacob
- ii. Component-2: IARI, New Delhi.
 - PI - Dr. Kiran B. Gaikwad
 - Co-PI - Dr. Rajbir Yadav & Dr. S.S. Rathore
- iii. Component-3: PAU, Ludhiana
 - PI - Dr. V.S. Sohu
 - Co-PI - Dr. Satinder Kaur, Dr. Praveen Chhuneja & Dr. Achla Sharma
- iv. Component-4: NIPGR, New Delhi
 - PI - Dr. Manoj Prasad
 - Co-PI - Dr. Swarup Kumar Parida & Dr. Debasis Chattopadhyay
- v. Component-5: IASRI, New Delhi.
 - PI - Dinesh Kumar
 - Co-PI - Dr. UB Angadi, Dr. Sarika, Dr. Mir Asif Iqbal, Dr. D.C. Mishra, Mr. Neeraj Budlakoti & Dr V.R. Akbari
- vi. Component-6: BISA, Ludhiana
 - PI - Dr. Uttam Kumar
 - Co-PI - Dr. A. K. Joshi & Dr. P. K. Bhati

B. Sub Project-2: Characterization and evaluation of wheat germplasm lines for biotic stress resistance: Dr. Vinod (Coordinator), ICAR-IARI, New Delhi. There are eleven (11) components in this sub-project:

- i. Component-1: ICAR-IARI, New Delhi
 - PI - Dr. S. K. Jha
 - Co-PI - Dr. Niharika Malik.
- ii. Component-2: IARI-RS, Wellington (T.N.)
 - PI - Dr. V.K. Vikas



- Indian
of
- xi. Component-11: BISA, Samastipur
- Evaluation of available 'Wheat Core Set' and 'Unique Set' for spot blotch resistance in replicated yield trials
 - To establish the test of allelism for spot blotch among different resistance sources
 - Evaluation of 'Unique set of germplasm' for tan spot under artificial inoculated condition
 - Evaluation of selected lines varying for disease resistance level under replicated yield trials in standard plots to measure yield loss due to individual allele/gene
- C. Sub Project-3:
- Overall Objectives:
- Multi-location evaluation of 'unique' and 'iterative core sets' for various abiotic stresses including drought, heat and salt tolerance
 - Validation of promising donors for various abiotic stresses under controlled conditions
- i. Component-1: IIWBR, Karnal
- Evaluation of 'Selected lines' for heat tolerance based on 1st year trial at three location and 'Iterative' core set of germplasm lines for terminal heat stress tolerance under normal and late sown conditions
 - Evaluation of 'Selected lines' for drought tolerance based on 1st year trial at three location and 'Iterative' core set of germplasm lines under normal and drought condition for the identification of novel sources of drought stress tolerance
- ii. Component-2: NBPGR, New Delhi
- Evaluation of 'Unique set' for the identification of novel sources drought stress tolerance under normal and drought stress conditions
 - Evaluation of 'Selected lines' for drought tolerance based on 1st year trial at three location and 'Iterative' core set of germplasm lines under normal and drought condition for the identification of novel sources of drought stress tolerance
 - Collection and maintenance of evaluation data of various abiotic stresses received from different centers
- iii. Component-3: PAU, Ludhiana
- Evaluation of 'Unique set' for the identification of novel sources drought stress tolerance under normal and drought stress conditions
 - Evaluation of 'Selected lines' for drought tolerance based on 1st year trial at three location and 'Iterative' core set of germplasm lines under normal and drought condition for the identification of novel sources of drought stress tolerance
- iv. Component-4: MPKV, Rahuri
- Evaluation of 'Selected lines' for heat tolerance based on 1st year trial at three location and 'Iterative' core set of germplasm lines for terminal heat stress tolerance under normal and late sown conditions
- v. Component-5: SKAUST, Jammu
- Evaluation of 'Selected lines' for drought tolerance based on 1st year trial at three location and 'Iterative' core set of germplasm lines under normal and drought condition for the identification of novel sources of drought stress tolerance.
- vi. Component-6: CSSRI, Karnal
- Evaluation of 'Iterative' core set of germplasm lines under normal and salinity stress condition for the identification of novel sources of salt stress tolerance
- vii. Component-7: IARI, New Delhi (Trait: Nutrient use efficiency)
- Evaluation of 'Iterative core' for identification of promising lines with high Nutrient Use Efficiency
- viii. Component-8: IARI, New Delhi (Trait: Salinity tolerance)
- Evaluation of 'Iterative core' for identification of promising lines with high salinity tolerance.
- ix. Component-9: IARI, Indore
- Evaluation of 'Selected lines' for heat tolerance based on 1st year trial at three location and 'Iterative' core set of germplasm lines for the identification of novel sources of heat tolerance.
- x. Component-10: ARI, Pune
- Evaluation of 'Unique set' for the identification of novel sources drought stress tolerance under normal and drought stress conditions
 - Evaluation of 'Selected lines' for drought tolerance based on 1st year trial at three location and 'Iterative' core set of germplasm lines under normal and drought condition for the identification of novel sources of drought stress tolerance
- xi. Component-11: BISA, Ludhiana
- Evaluation of 'Unique set' for the identification of novel sources heat stress tolerance under replicated trials in timely and late sown conditions
- Sharma

3. Budget of the network project (Sub project wise): Details of the budget are in Annexure I.

4. Consolidated budget of the network project (Sub project wise) for five years: (Rs. in Lakh)

Name of the Institute	NR Grant	Manpower	Consumables	Travel	Contingency	Field & Farm	Over-head	Out-sourcing	Training	Review Meeting	Publication Charges	Total
Sub-Project 1												
								484.00	0.00	0.00	0.00	882.406
NBGR	42.00	228.406	80.00	2.50	2.50	38.00	5.00	0.00	0.00	0.00	0.00	95.7776
IARI	6.40	51.6336	10.244	2.50	2.50	20.00	2.50	0.00	0.00	0.00	0.00	53.9244
PAU	0.00	18.3744	4.00	2.50	4.50	22.50	2.050	0.00	0.00	0.00	0.00	747.374
NIPGR	90.99	138.384	23.00	2.50	2.50	0.00	0.00	490.00	0.00	0.00	0.00	763.124
IASRI	5.00	66.6624	0.00	1.25	2.50	0.00	0.90	0.00	0.00	0.00	0.00	71.33
BISA	0.00	8.63	12.00	3.00	1.50	45.00	1.20	0.00	0.00	0.00	0.00	
Sub-Project 2												
								0.00	0.00	0.00	0.00	99.1466
IARI	4.98	59.6666	17.00	2.50	2.50	10.00	2.50	0.00	0.00	0.00	0.00	74.9712
IARI, Wellington	5.00	44.9712	10.00	2.50	2.50	7.50	2.50	0.00	0.00	0.00	0.00	69.9712
IWBR, Shimla	0.00	44.9712	10.00	2.50	2.50	7.50	2.50	0.00	0.00	0.00	0.00	59.8304
PAU	4.956	18.3744	12.00	2.50	2.50	17.00	2.50	0.00	0.00	0.00	0.00	35.8744
BIU	3.50	18.3744	3.00	2.00	2.00	5.00	2.00	0.00	0.00	0.00	0.00	43.4432
CSKHPKV	3.80	21.6432	6.00	2.00	2.00	6.00	2.00	0.00	0.00	0.00	0.00	47.2552
IARI, New Delhi	3.90	30.3552	4.00	1.00	2.00	4.00	2.00	0.00	0.00	0.00	0.00	32.8744
IARI, Indore	2.00	18.3744	3.00	2.00	1.50	4.50	1.50	0.00	0.00	0.00	0.00	40.3744
SKUAST	5.00	18.3744	6.00	2.00	1.50	5.00	1.50	0.00	0.00	0.00	0.00	30.368
ANDUAT	5.00	10.368	3.00	2.00	2.00	6.00	2.00	0.00	0.00	0.00	0.00	79.0196
BISA	0.00	35.7696	7.50	1.50	2.25	30.00	2.00	0.00	0.00	0.00	0.00	
Sub-Project 3												
								0.00	0.00	0.00	0.00	95.5696
IWBR, Karnal	8.30	35.7696	24.00	2.50	2.50	20.00	2.50	0.00	0.00	0.00	0.00	79.5752
NBGR	16.72	30.3552	6.00	2.00	2.50	20.00	2.00	0.00	0.00	0.00	0.00	57.1744
PAU	4.80	18.3744	8.00	2.00	2.00	20.00	2.00	0.00	0.00	0.00	0.00	51.2384
MPKV	1.30	26.4384	10.00	2.00	2.00	7.50	2.00	0.00	0.00	0.00	0.00	50.4384
SKAUST, Jammu	3.50	26.4384	7.50	2.00	2.00	7.00	2.00	0.00	0.00	0.00	0.00	46.6072
CSSRI	2.50	17.1072	6.00	2.00	2.00	15.00	2.00	0.00	0.00	0.00	0.00	59.0416
IARI, New Delhi-Nutrient	3.90	19.6416	17.00	2.00	2.50	12.00	2.00	0.00	0.00	0.00	0.00	41.0416
IARI, New Delhi-Salinity	3.40	19.6416	12.00	1.00	3.00	0.00	2.00	0.00	0.00	0.00	0.00	44.8968
IARI, Indore	4.00	28.3968	3.00	2.00	1.50	4.50	1.50	0.00	0.00	0.00	0.00	61.1648
IARI, Pune	2.50	29.1648	5.00	2.00	2.00	18.00	1.50	0.00	0.00	0.00	0.00	241.9928
BISA, Ludhiana	2.50	46.4928	15.00	2.50	2.50	168.00	5.00	0.00	0.00	0.00	0.00	8
Sub-Project 4												
								0.00	0.00	0.00	0.00	85.0552
IARI, New Delhi	30.50	30.3552	18.00	2.00	2.50	0.00	1.70	0.00	0.00	0.00	0.00	80.9752
IWBR, Karnal	20.00	27.4752	26.00	2.50	2.50	0.00	2.50	0.00	0.00	0.00	0.00	51.3616
NBGR	14.00	23.3616	9.00	1.50	2.00	0.00	1.50	0.00	0.00	0.00	0.00	78.0456
NABI	0.00	43.5456	30.00	1.50	1.50	0.00	1.50	0.00	0.00	0.00	0.00	

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ORDER

Sanction of the President is hereby accorded, under Rule 11 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality" under mission programme of "Characterization of Genetic Resources" for a period of 5 Years at a total cost of Rs.29217446.00 (Rupees thirty nine crores thirty one lakh seventy four thousand four hundred and sixty only) as per details in Para's below:

1. The Project

1.1 Title: Characterization of Genetic Resources: Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality

1.2 Project Coordinator: Dr. Kuldip Singh, NBPGR, New Delhi.

1.3 Project Co-coordinator: Dr. Sandeep Kumar, NBPGR, New Delhi.

1.4 Principal Investigators and Coordinators of the Sub-projects:

A. Sub Project - 1: Germplasm genomics for trait discovery: Dr. Sandeep Kumar (Coordinator), NBPGR, New Delhi. There are six (06) components in this sub-project:

i. Component-1: NBPGR, New Delhi

- * PI - Dr. Sandeep Kumar & Dr. Amit K. Singh
- * Co-PI - Dr. Jyoti Kumari & Dr. Sherry R. Jacob

ii. Component-2: IARI, New Delhi.

- * PI - Dr. Kiran B. Galkwad
- * Co-PI - Dr. Rajbir Yadav & Dr. S.S. Rathore

iii. Component-3: PAU, Ludhiana

- * PI - Dr. V.S. Sohi
- * Co-PI - Dr. Satinder Kaur, Dr. Praveen Chhousija & Dr. Achis Sharma

iv. Component-4: NIPGR, New Delhi

- * PI - Dr. Manoj Prasad
- * Co-PI - Dr. Swarup Kumar Parida & Dr. Debasis Chattopadhyay

v. Component-5: IASRI, New Delhi.

- * PI - Dinesh Kumar
- * Co-PI - Dr. UB Angadi, Dr. Sarika, Dr. Mir Asif Iqbal, Dr. D.C. Mishra, Mr. Neeraj Budlakoti & Dr V.R. Akhari

vi. Component-6: BISA, Ludhiana

- * PI - Dr. Uttam Kumar
- * Co-PI - Dr. A. K. Joshi & Dr. P. K. Bhati

B. Sub Project-2: Characterization and evaluation of wheat germplasm lines for biotic stress resistance: Dr. Vinod (Coordinator), ICAR-IARI, New Delhi. There are eleven (11) components in this sub-project:

i. Component-1: ICAR-IARI, New Delhi

- * PI - Dr. S. K. Jha
- * Co-PI - Dr. Niharika Malik

ii. Component-2: IARI-RS, Wellington (T.N.)

- * PI - Dr. V.K. Vikas

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- iv. Component 1 IARI, New Delhi (Trans. Network and efficiency)
 - PI - Dr. Bansi Prasad
 - Co-PI - Dr. Lokesh
- v. Component 2 IARI, New Delhi (Trans. Safety network)
 - PI - Dr. Lokesh
 - Co-PI - Dr. Bansi Prasad
- vi. Component 3 IARI, New Delhi
 - PI - Dr. An Prasad
 - Co-PI - Dr. J.R. Singh, Mr. Prayag Prasad, Mr. Prakash T.S.
- vii. Component 4 IARI, New Delhi
 - PI - Dr. Vasudevachandrasekar S.J.
 - Co-PI - Dr. Sushil
- viii. Component 5 IARI, Ludhiana
 - PI - Dr. Jagan Kumar
 - Co-PI - Dr. A.R. Joshi & Dr. Pradyumn

D. Sub-Project 4 Evaluation of wheat germplasm for quality traits. Dr. C. Srinivas Prasad Singh (Coordinator), Director, ICRISAT, Patancheru. There are two (02) components in this sub-project.

- i. Component 1 IARI, New Delhi
 - PI - Dr. Anup Mahapatra
 - Co-PI - Dr. Naveen Jain
- ii. Component 2 ICRISAT, Patancheru
 - PI - Dr. Siva Rao
 - Co-PI - Dr. R.D. Singh, Dr. Gopal Kishore & Dr. R.P. Gupta
- iii. Component 3 NIPICR, New Delhi
 - PI - Dr. Sandeep Kumar
 - Co-PI - Dr. Rajesh Dhandray, Dr. Sandeep Kumar & Mr. Sandeep Kumar
- iv. Component 4 NARI, Mahabubnagar
 - PI - Dr. Manish Garg
 - Co-PI - Dr. Kanchan Wajankar
- v. Component 5 ICRISAT, Patancheru
 - PI - Dr. Manoj Kumar Singh
 - Co-PI - Dr. S.S. Gaur & Dr. P.K. Sharma

E. Sub-Project 5 Capacity building in the area of genomic selection and high throughput phenotyping and its application to national breeding programs. NIPICR, New Delhi (Coordinating institution). There are two (02) components in this sub-project.

- i. Component 1 NIPICR, New Delhi (Coordinating institution)
 - PI - Dr. Sandeep Kumar
 - Co-PI - Dr. Anup Kumar Singh & Dr. M.S. Yadav
- ii. Component 2 IARI, Ludhiana
 - PI - Dr. Jagan Prasad
 - Co-PI - Dr. A.R. Joshi & Dr. P.K. Sharma

F. Sub-Project 6 Coordination Unit (NIPICR, New Delhi) (Coordinator: Dr. Kanchan Singh)

- i. Component 1 National Bureau of Dairy Cattle Breeds, New Delhi
 - PI - Dr. Sandeep Kumar
 - Co-PI - Dr. Anup Kumar Singh

Handwritten signature

5. Consolidated head wise budgetary details for period of five years:

Head	Year I	Year II	Year III	Year IV	Year V	Total
Non-recurring Equipments*	330.596	0.0	0.0	0.0	0.0	330.596
Recurring Manpower**	147.8634	298.7418	308.6632	315.9682	268.818	1340.0546
Consumable	30.00	115.00	112.00	130.00	47.244	434.244
Outsourcing Services	684.00	190.00	100.00	0.0	0.0	974.00
Travel	8.75	21.75	21.75	21.75	17.75	91.75
Field & Farm	116.50	122.5	151.5	107	23.5	521.00
Training	0.00	20.50	20.50	0.00	0.00	41.00
Review Meeting	3.00	3.00	3.00	3.00	3.00	15.00
Publication Charges	3.00	5.00	5.00	5.00	5.00	23.00
Contingency	8.50	21.5	21.00	21.00	16.25	88.25
Overhead	6.70	17.65	17.95	17.95	12.60	72.85
Total	1338.9094	815.6418	761.3632	621.6682	394.162	3931.7446

6. Head of Account:

i. The expenditure for recurring is debatable to:

Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2019-2020
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants -in-Aid General

ii. The expenditure for Non-recurring is debatable to:

Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2019-2020
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

Abhishek

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Mainstreaming rice landraces diversity in varietal development through genome-wide association studies: A model for large-scale utilization of gene bank collections of rice" under mission programme of "Characterisation of Genetic Resources" for a period of 5 Years at a total cost of Rs.4953.488 lakh (Rupees forty nine crore fifty three lakh forty eight thousand eight hundred only) as per details in Para's below:

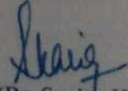
2. The Project:
- 2.1 Title: Characterisation of Genetic Resources: Mainstreaming rice landraces diversity in varietal development through genome-wide association studies: A model for large-scale utilization of gene bank collections of rice.
- 2.2 Project Coordinator: Dr. Ashok Kumar Singh, Director, Indian Agricultural Research Institute, New Delhi
- 2.3 Project Co-coordinator: Dr. Kuldeep Singh, Director, National Bureau of Plant Genetic Resources, New Delhi
- 2.4 Principal Investigators and Coordinators of the Sub-projects:
 - i. Component-1: IARI, New Delhi
 - PI - Dr. Gopala Krishnan S
 - Co-PIs - Dr. Ranjith Kumar Ellur, Dr. Haritha Bollinedi, Dr. K. K. Vinod, Dr. Prolay Kumar Bhowmick, Dr. M. Nagarajan, Dr. Bishnu Maya Basyal, Dr. G. Prakash & Dr. Uma Rao
 - ii. Component-2: NBPGR, New Delhi
 - PI - Dr. Rakesh Singh
 - Co-PIs - Dr. Vimala Devi, Dr. S. C. Dubey, Dr. Z. Khan, Dr. Jameel Akhtar, Dr. Rakesh Bharadwaj, Dr. Ruchi Bansal, Dr. Sunil Archak
 - iii. Component-3: NRRI, Cuttack
 - PI - Dr. Sharat Kumar Pradhan
 - Co-PIs - Dr. Lambodar Behera, Dr. Jawahar Lal Katara, Shri Bishnu Charan Marndi, Dr. Devanna, Dr. Amrita Banerjee, Dr. Somnath Roy, Dr. Koushik Chakraborty, Dr. Manas Kumar Bag, Dr. Prashant kumar S Hanjagi, Gaurav Kumar, Dr. Aravindan S & Annamalai. M
 - iv. Component-4: IIRR, Hyderabad
 - PI - Dr. C.N. Neeraja, Dr. L.V. Subbarao
 - Co-PIs - Dr. C. Gireesh, Dr. J. Aravind Kumar, Dr. D. Ladhakshmi, Dr. Anantha M. S., Dr. R. Abdul Fiyaz
 - v. Component-5: IASRI, New Delhi
 - PI - Dr. Sarika
 - Co-PIs - Dr. Dinesh Kumar, Dr. Mir Asif Iquebal
 - vi. Component-6: NIPGR, New Delhi
 - PI - Dr. Aashish Ranjan
 - Co-PI - Dr. Swarup K. Parida, Dr. Jitender Giri, Dr. Amar Pal Singh, Dr. Gopaljee Jha, Dr. Jagadis Gupta Kapuganti
 - vii. Component-7: PAU, Ludhiana
 - PI - Dr. G. S. Mangat
 - Co-PIs - Dr. J. S. Lore, Dr. P. S. Sarao, Dr. Buta Singh Dhillon, Dr. Renu Khanna
 - viii. Component-8: SKUAST, Kashmir
 - PI - Dr. Najeeb-ul Rehman Sofi
 - Co-PIs - Dr. Asif Bashir Shikari, Dr. F. A. Mohiddin, Dr. Ashaq Hussain

Shaiq

ii. The expenditure for Non-recurring is debatable to:

Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2019-2020
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

7. **Terms & Conditions:**
- In case the whole or a part of the amount of the grant in aid is being refunded, an interest at the rate of ten percent per annum thereon shall be recovered.
 - The Non-recurring amount should be utilized within 18 months from the date of Sanction Order.
 - No Utilization Certificate is pending with the implementing Institute. All the Utilization Certificates due for rendition have been received and accepted by the head of Division/Competent Authority.
 - A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA by the grantee institutions and its acceptance by DBT. In case of NGO or Private Institution, MOA signed is mandatory first release.
 - The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and Statement of Expenditure. The interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Accounts.
 - As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions of Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organization is called upon to do so.
 - PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. SR/S9/Z-08/2018 dated 30.01.2019. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET. PI can also recruit project staff as per approved institutional/organizational norms or as per DST O.M. SR/S9/Z-05/2019 dated 21.08.2019.
8. **Other Terms & Conditions:**
- The Director, IARI, New Delhi shall be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.
 - The Director, IARI, New Delhi shall be responsible for upload consolidated GFR - 19 (UC) in PFMS.
 - Grant of all participating Institutes/ Universities shall be released to IARI, New Delhi. It shall be the responsibility of IARI, New Delhi to debit grant to the respective participating components as per grants sanctioned by the DBT within fifteen days.
 - IARI, New Delhi shall be responsible for overall account management and timely releases & submission of annual reports.
 - All partnering institution shall enter in to a MoA and sign MTAs. However, institutions are required to send MoA as per DBT format within 30 days of order.
 - PMU shall function under coordinator of the project and DBT for monitoring /evaluation of research progress and implementation of the project.
 - The accounts of grantee institution shall be open to inspection by the sanctioning authority/audit whenever the institute is called upon to do so by the sanctioning authority.
9. This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No.102/IFD/SAN/4188/2019-20 dated 04.03.2020.
10. This sanction order has been noted at serial no. 239 in the Register of Grants.


(Dr. Sanjay Kalia)
Scientist 'E'

BT/KIS/123/SP36590/2019
Government of India
Ministry of Science & Technology
Department of Biotechnology

Block 2, 6-8 Floors,
CGO Complex, Lodi Road,
New Delhi – 110003

Dated: 17.12.2019

ORDER

In continuation of this Department's sanction order of even number dated 17.12.2019, sanction of the President is hereby accorded, under Rule 18 of Delegation of Financial Powers Rules, 1978, for release of ₹ 161.00 lakhs (Rupees One hundred Sixty One lakhs only) being the first release under Recurring heads for implementation of the Sub-Project entitled "Expansion of Activities of Biotech-KISAN Hub in Three Aspirational Districts (Karauli, Dholpur, Baran) of Rajasthan, One Aspirational District (Mewat) of Haryana and Three Aspirational Districts (Balrampur, Baharaich and Sravasti) of Uttar Pradesh" under Biotech-KISAN Hub at ICAR-Indian Agricultural Research Institute, New Delhi as per the following break up:

S. No.	Item	Amount (₹ in lakh)
1.	Manpower (14 posts of Young Professional II @ ₹ 25,000/- fixed per month)	42.00
2.	Training to farmers	14.00
3.	Activity Cost (including cost of consumables / agriculture inputs, contingencies, travel etc.). Minimum 3 activities in each district / year to be undertaken @ ₹ 5.00 lakhs each activity.	105.00
Total:		161.00

- The other terms and conditions governing the financial sanction will remain unaltered.
- The amount of ₹ 161.00 lakhs (Rupees One hundred Sixty One lakhs only) shall be directly credited by PAO to the following bank account of **the Director, ICAR-Indian Agricultural Research Institute, Pusa, New Delhi** through RTGS, as per the following bank details:
Name of the Bank: Syndicate Bank, Pusa Campus, New Delhi
Account No.: 90293050000040
IFSC Code: SYNB0009029
- The expenditure involved is debit to 87: Department of Biotechnology; 3425: Other Scientific Research (Major Head); 60: Others (Sub-Major Head); 60.200: Assistance to other Scientific Bodies (Minor Head); 29: Biotechnology Research and Development, Human Resource Development, Research Resources and Facilities; 29.17: Assistance for Research and Development; 29.17.31: Grants-in-Aid General for the year 2019-2020.
- Being the first release for this project, no utilization certificate is pending with the implementing institute. All the Utilization Certificates due for rendition have been received and accepted by the Head of Division / competent authority.

Mohd. Aslam

डा. मो. असलम / Dr. MOHD. ASLAM
वैज्ञानिक जी / Scientist 'G'

बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Dr. K. M. P.
Dr. R. K. B.
P. I. D. S. W. 2

o/c

6. The Director, ICAR-IARI, New Delhi will submit the audited utilization certificate and statement of expenditure in respect of the above mentioned amount.
7. In case the whole or a part of the amount of the grant-in-aid is being refunded, an interest at the rate of ten per cent per annum thereon shall be recovered.
8. As per rule 236(1) of GFR 2017, audit of account – the Accounts of all grantee Institutions or Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPE) Act, 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organization is called upon to do so.
9. This issues under the powers delegated to this Department and with the concurrence of IFD, DBT, vide their SAN No. 102/IFD/SAN/2987/2019-2020 dated 17.12.2019.
10. This sanction order has been noted at Serial No. 115 in the Register of Grants.

Mohd. Aslam
(Dr. Mohd. Aslam)
Scientist 'G'

डा. मो. असलम / Dr. MOHD. ASLAM
वैज्ञानिक 'जी' / Scientist 'G'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

To,
The Pay & Accounts Officer,
Department of Biotechnology,
Ministry of Science & Technology,
CGO Complex, Lodhi Road,
New Delhi – 110003

Copy to:

1. The Principal Director of Audit (Scientific Departments), AGCR Building, New Delhi – 110002
2. Cash Section, DBT (2 copies)
3. IFD, DBT
4. Sanction Folder
- ✓ 5. Dr. J. P. Sharma, Joint Director (Extension & Research), ICAR-Indian Agricultural Research Institute, Pusa, New Delhi – 110012
6. The Director, ICAR-Indian Agricultural Research Institute, Pusa, New Delhi – 110012

Mohd. Aslam
(Dr. Mohd. Aslam)
Scientist 'G'

डा. मो. असलम / Dr. MOHD. ASLAM
वैज्ञानिक 'जी' / Scientist 'G'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

SP/YO/2019/952(G)
Government of India
Ministry of Science & Technology
Department of Science & Technology
(SEED Division)

Technology Bhavan,
New Mehrauli Road
New Delhi-110016
Dated: 19.08.2020

ORDER

Sub:- **Financial assistance for the project titled "Design and Development of Acoustic Based Gadget for Maturity Detection in Melons" under the guidance of Er. Aradwad Pramod Pandurang, Scientist, Division of Agricultural Engineering, ICAR-Indian Agricultural Research Institute (IARI), Pusa Campus, New Delhi. 110012.**

Sanction of the President is hereby accorded to the approval of the above mentioned project at a total cost of **Rs.55,16,205/- (Rupees Fifty Five Lakh Sixteen Thousand Two Hundred Five only)** for a duration of three years. The detailed breakup of the grant for General & Capital Components are given below:-

General Component : Rs.19,00,608/-
Capital Assets : Rs.36,15,597/-
TOTAL : Rs.55,16,205/-

2. The sanction of the President is also accorded to the release of **Rs.6,76,368/- (Rupees Six Lakh Seventy Six Thousand Three Hundred Sixty Eight only)** being the first installment for a duration of initial six month of grant under "General Component" for implementation of the above mentioned project. The item of expenditure for which the total allocation of **Rs.55,16,205/-** has been approved for a period of 36 months are given below:

Sl.No	Budget Head	1 st year (Initial 6 months)	1 st year (Initial 6 months)	2 nd year	3 rd year	Total
A	Non-recurring					
1.	Equipment	3115597	0	400000	100000	3615597
	Sub-total (A)	3115597	0	400000	100000	3615597
B	Recurring					
1.	Manpower: Project Assistant @ Rs. 22,000/-.	132000	132000	264000	264000	792000
2.	Consumables	200000	0	100000	100000	400000
3.	Travel	0	50000	50000	50000	150000
4.	Contingency	50000	0	50000	50000	150000
5.	Overhead 8%	294368	0	69120	45120	408608
	Sub-total (B)	676368	182000	533120	509120	1900608
	Grand total (A+B)	37,91,965/-	1,82,000/-	9,33,120/-	6,09,120/-	55,16,205/-

3. This sanction is subject to the condition that the grantee organization will furnish to the Department of Science & Technology, financial year wise Utilization Certificate (UC) in the proforma prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to date progress report at the end of each financial year duly reflecting the interest earned/ accrued on the grants received under the project. This is also subject to the condition of submission of the final statement of expenditure, utilization certificate and project completion report within one year from the scheduled date of completion of the project.

13. The account of the grantee organization shall be open to inspection by the sanctioning authority and audit (both by C & AG of India and Internal Audit by the Principal Accounts Office of the DST), whenever the organization is called upon to do so, as laid down under Rule 236(1) of General Financial Rules 2017.

14. Due acknowledgment of technical support / financial assistance resulting from this project grant should mandatorily be highlighted by the grantee organization in bold letters in all publications / media releases as well as in the opening paragraphs of their Annual Reports during and after the completion of the project.

15. Failure to comply with the terms and condition of the Bond will entail full refund with interest in terms of Rule 231 (2) of GFR 2017.

16. The expenditure involved is debitible to Demand No.87, Department of Science & Technology for the year 2020-21:

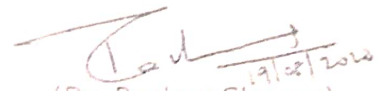
3425 : Other Scientific Research (Major Head)
60 : Others
60.200 : Assistance to Other Scientific Bodes (Minor Head)
70 : Innovation, Technology Development and Deployment
70.00.31 : Grants-in-aid General for the year 2020-21 (Plan)
*(Previous : SSP-SEED-3425.60.200.08.11.31)

17. The amount **Rs.6,76,368/- (Rupees Six Lakh Seventy Six Thousand Three Hundred Sixty Eight only)** will be drawn by the Drawing and Disbursing Officer, DST and will be disbursed to Director, ICAR-Indian Agricultural Research Institute (IARI), Pusa Campus, New Delhi, 110012. The bank details for electronic transfer of funds through RTGS are given below:-

Institution Account Name	Director, IARI
Saving Account Number	90292010141385
Name of Bank	Syndicate Bank
RTGS/IFS Code	SYNB0009029
MICR Code	110025041

18. As per Rule 234 of GFR 2017, this sanction has been entered at S. No.84 in the register of grants maintained in the Division for the scheme **(Scheme for Young Scientist and Technologists)**.

19. This issues with the concurrence of IFD Vide their Concurrence Dy. No. **C/1465/IFD/2020-21** Dated 19.08.2020.


(Dr. Rashmi Sharma)
Scientist-'E'
011-26590541

To
The Pay and Accounts Officer,
Department of Science & Technology,
New Delhi.

1. Copy for information and necessary action to:-
2. Cash Section (3 copies) for making the payment to the grantee.
3. Account Section.
4. Director of Audit, (Scientific Deptt), AGCR Building, New Delhi - 110 002.
5. Director, ICAR-Indian Agricultural Research Institute (IARI), Pusa Campus, New Delhi. 110012.
6. Er. Aradwad Pramod Pandurang, Scientist, Divison of Agricultural Enigineering, ICAR-Indian Agricultural Research Institute (IARI), Pusa Campus, New Delhi. 110012.

No. BT/Ag/Network/Wheat/2019-20
Ministry of Science & Technology
Department of Biotechnology
Government of India

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 29.02.2020

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality" under mission programme of "Characterisation of Genetic Resources" for a period of 5 Years at a total cost of Rs.393174460.00 (Rupees thirty nine crore thirty one lakh seventy four thousand four hundred and sixty only) as per details in Para's below:

2. The Project:

2.1 Title: Characterisation of Genetic Resources: Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality

2.2 Project Coordinator: Dr. Kuldeep Singh, NBPGR, New Delhi.

2.3 Project Co-coordinator: Dr. Sundeep Kumar, NBPGR, New Delhi.

2.4 Principal Investigators and Coordinators of the Sub-projects:

A. Sub Project - 1: Germplasm genomics for trait discovery: Dr. Sundeep Kumar (Coordinator), NBPGR, New Delhi. There are six (06) components in this sub-project:

i. Component-1: NBPGR, New Delhi

- PI - Dr. Sundeep Kumar & Dr. Amit K. Singh
- Co-PI - Dr. Jyoti Kumari & Dr. Sherry R. Jacob

ii. Component-2: IARI, New Delhi.

- PI - Dr. Kiran B. Gaikwad
- Co-PI - Dr. Rajbir Yadav & Dr. S.S. Rathore

iii. Component-3: PAU, Ludhiana

- PI - Dr. V.S. Sohu
- Co-PI - Dr. Satinder Kaur, Dr. Praveen Chhuneja & Dr. Achla Sharma

iv. Component-4: NIPGR, New Delhi

- PI - Dr. Manoj Prasad
- Co-PI - Dr. Swarup Kumar Parida & Dr. Debasis Chattopadhyay

v. Component-5: IASRI, New Delhi.

- PI - Dinesh Kumar
- Co-PI - Dr. UB Angadi, Dr. Sarika, Dr. Mir Asif Iqbal, Dr. D.C. Mishra, Mr. Neeraj Budlakoti & Dr V.R. Akbari

vi. Component-6: BISA, Ludhiana

- PI - Dr. Uttam Kumar
- Co-PI - Dr. A. K. Joshi & Dr. P. K. Bhati

B. Sub Project-2: Characterization and evaluation of wheat germplasm lines for biotic stress resistance: Dr. Vinod (Coordinator), ICAR-IARI, New Delhi. There are eleven (11) components in this sub-project:

i. Component-1: ICAR-IARI, New Delhi

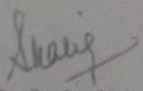
- PI - Dr. S. K. Jha
- Co-PI - Dr. Niharika Malik.

ii. Component-2: IARI-RS, Wellington (T.N.)

- PI - Dr. V.K. Vikas

[Handwritten signature]

7. **Terms & Conditions:**
- i. In case the whole or a part of the amount of the grant in aid is being refunded, an interest at the rate of ten percent per annum thereon shall be recovered.
 - ii. The Non-recurring amount should be utilized within 18 months from the date of Sanction Order.
 - iii. No Utilization Certificate is pending with the implementing Institute. All the Utilization Certificates due for rendition have been received and accepted by the head of Division/Competent Authority.
 - iv. A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA by the grantee institutions and its acceptance by DBT. In case of NGO or Private Institution, MOA signed is mandatory first release.
 - v. The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and Statement of Expenditure. The interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Accounts.
 - vi. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions of Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of the CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organization is called upon to do so.
 - vii. PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. SR/S9/Z-08/2018 dated 30.01.2019. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET. PI can also recruit project staff as per approved institutional/organizational norms or as per DST O.M. SR/S9/Z-05/2019 dated 21.08.2019.
8. **Other Terms & Conditions:**
- i. The Director, NBPGR, New Delhi shall be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.
 - ii. The Director, NBPGR, New Delhi shall be responsible for upload consolidated GFR - 19 (UC) in PFMS.
 - iii. Grant of all participating Institutes/ Universities shall be released to NBPGR, New Delhi. It shall be the responsibility of NBPGR, New Delhi to debit grant to the respective participating components as per grants sanctioned by the DBT within fifteen days.
 - iv. NBPGR, New Delhi shall be responsible for overall account management and timely releases & submission of annual reports.
 - v. All partnering institution shall enter in to a MoA and sign MTAs. However, institutions are required to send MoA as per DBT format within 30 days of order as detailed para 8 (iv).
 - vi. PMU shall function under coordinator of the project and DBT for monitoring /evaluation of research progress and implementation of the project.
 - vii. The accounts of grantee institution shall be open to inspection by the sanctioning authority/audit whenever the institute is called upon to do so by the sanctioning authority.
9. This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No.102/IFD/SAN/3963 /2019-20 dated 29.02.2020.
10. This sanction order has been noted at serial no. 216 in the Register of Grants.


(Dr. Sanjay Kalia)
Scientist 'E'

To,
The Pay & Accounts Officer,
Ministry of Science & Technology
Department of Biotechnology
New Delhi - 110 003.

Copy to:

1. The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002
2. The Director, NBPGR, New Delhi.
3. Dr. Sundeep Kumar, NBPGR, New Delhi.

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Mainstreaming sesame germplasm for productivity enhancement and sustainability through genomics assisted core development and trait discovery" for a period of 5 Years at a total cost of Rs. 319838600.00 (Rupees thirty one crore ninety eight lakh thirty eight thousand six hundred only) as per details in Para's below:

2. The Project:

2.1 Title: Minor Oilseeds of Indian Origin: Mainstreaming sesame germplasm for productivity enhancement and sustainability through genomics assisted core development and trait discovery.

2.2 Project Coordinator: Dr. Kuldeep Singh, Director, NBPGR, New Delhi.

2.3 Project Co-coordinator: Dr. Rashmi Yadav, NBPGR, New Delhi & Dr. Ashok Kumar, NBPGR, New Delhi.

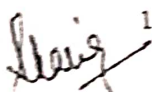
2.4 Principal Investigators and Coordinators of the Sub-projects:

A. Sub Project - 1: Phenotyping of Sesame Germplasm for Agro morphological Traits. There are 07 components in this sub-project:

- i. Component-1: NBPGR, New Delhi
 - Co-Coordinator and PI-Dr. Rashmi Yadav
 - Co-PIs-Dr. Ashok Kumar, Dr. RadhamaniJalli; Mr. Aravind; Dr. Vikender Kaur; Dr. V.S. Meena
- ii. Component-2: Punjab Agricultural University, Ludhiana.
 - PI-Dr. Indu Raitch
 - Co-PI-Dr. Surinder K. Sandhu
- iii. Component-3: TNAU-Regional Research Station, Vridachalam.
 - PI-Dr. A. Mahalingam.
 - Co-PI-Dr. A. Mohilal
- iv. Component-4: AUJ-Agricultural Research Station, Mandor, Jodhpur.
 - PI-Dr. S. R. Kumhar
 - Co-PI-Mrs. Neelam Geet
- v. Component-5: JAU-Agricultural Research Station, Amreli.
 - PI-Dr. V. N. Gohil
 - Co-PI-Dr V.R. Akbari
- vi. Component-6: PC Unit (Sesame and Niger), JNKVV, Jabalpur
 - PI-Dr. Rajani Bisen
 - Co-PI-Mrs. Roshni Sahu
- vii. Component-7: IARI, New Delhi
 - PI-Dr. Renu Pandey

B. Sub Project-2: Genotyping of Sesame Germplasm Following High Throughput Genomics: There are 05 components in this sub-project:

- i. Component-1: NBPGR, New Delhi.
 - PI & Coordinator for Genotyping -Dr. Parimalan Rangan, NBPGR New Delhi.
 - Co-PIs-Dr. Rashmi Yadav & Dr. S. Rajkumar

 1

- Co-PI-Dr. Surinder K. Sandhu

E. Sub Project-5: Identification of abiotic stress (water logging & drought) tolerant sesame genotypes. There are 06 components in this sub-project:

- Component-1: IARI, New Delhi
 - PI-Dr. Renu Pandey
- Component-2: RLBCAU, Jhansi
 - PI-Dr. Artika Singh
 - Co-PI-Dr. R.K. Choudhary
- Component-3: NBPGR, RS, Akola
 - PI-Dr. Sunil Gomase
 - Co-PI-Dr. Dinesh Chand
- Component-4: NIPB, New Delhi
 - PI-Dr. Vandana Rai
- Component-5: SDAU, Gujarat
 - PI-Dr. Anuj Kumar Singh
 - Co-PI-Mr. Jignesh kumar R. Patel
- Component-6: RLBCAU, Jhansi
 - PI-Dr. Artika Singh
 - Co-PI-Dr. R.K. Choudhury

F. Sub Project-6: National Bureau of Plant Genetic Resources, RS, Thrissur. There are 05 components in this sub-project:

- Component-1: NBPGR, RS, Thrissur
 - PI-Dr. K. Pradheep
 - Co-PIs-Dr. Parimalan Rangan; Dr. Rashmi Yadav; Dr. Mamta Singh; Dr. A. Suma (RS, Thrissur); Dr. Kartar Singh (RS, Jodhpur); Dr. Sunil S. Gomase (RS, Akola)
- Component-2: TNAU-Regional Agricultural Research Station, Vridachalam
 - PI-Dr. A. Mahalingam
 - Co-PIs-Dr. A. Mothilal; Dr. G. Senthilraja
- Component-3: PC Unit (Sesame and Niger), JNKVV, Jabalpur
 - PI-Dr. RajaniBisen
 - Co-PIs-Dr. Anand Kumar Panday; Dr. Kailash Narayan Gupta
- Component-4: RLBCAU, Jhansi
 - PI-Dr. R.K. Choudhary
 - Co-PI-Dr. Artika Singh
- Component-5: PAU, Ludhiana
 - PI-Dr. Indu Railch
 - Co-PIs- Dr. Sanjula Sharma; Dr. Pankaj Sharma, Dr. S. K. Sandhu


G. Sub Project-7: Management Unit of Project on Minor Oil Seed Crops, NBPGR, New Delhi.

- Component-1: NBPGR, New Delhi
 - PI-Dr. Rashmi Yadav

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Other Terms & Conditions:

- i. The Director, NBPGR, New Delhi shall be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.
 - ii. The Director, NBPGR, New Delhi shall be responsible for upload consolidated GFR - 19 (UC) in PFMS.
 - iii. Grant of all participating Institutes/ Universities shall be released to NBPGR, New Delhi. It shall be the responsibility of NBPGR, New Delhi to debit grant to the respective participating components as per grants sanctioned by the DBT within fifteen days.
 - iv. NBPGR, New Delhi shall be responsible for overall account management and timely releases & submission of annual reports.
 - v. All partnering institution shall enter in to a MoA and sign MTAs. However, institutions are required to send MoA as per DBT format within 30 days of order as detailed para 8 (iv).
 - vi. PMU shall function under coordinator of the project and DBT for monitoring /evaluation of research progress and implementation of the project.
 - vii. The accounts of grantee institution shall be open to inspection by the sanctioning authority/audit whenever the institute is called upon to do so by the sanctioning authority.
8. This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No.102/IFD/SAN/3955/2019-20 dated 29-02-2020.
9. This sanction order has been noted at serial no. -210- in the Register of Grants.


(Dr. Sanjay Kalia)
Scientist 'E'

To,
The Pay & Accounts Officer,
Ministry of Science & Technology
Department of Biotechnology
New Delhi - 110 003.

Copy to:

1. The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002
2. The director, NBPGR, New Delhi.
3. Dr. Kuldeep Singh, Project Coordinator, National Bureau of Plant Genetic Resources, New Delhi
4. Dr. Rashmi Yadav, Project Co-coordinator, National Bureau of Plant Genetic Resources, New Delhi
5. Dr. Ashok Kumar, Project Co-coordinator, National Bureau of Plant Genetic Resources, New Delhi
6. Dr. Indu Railch, Punjab Agricultural University, Ludhiana.
7. Dr. A. Mahalingam, TNAU-Regional Research Station, Vridachalam.
8. Dr. S. R. Kumhar, AUJ-Agricultural Research Station, Mandor, Jodhpur.
9. Dr. V. N. Gohil, JAU-Agricultural Research Station, Amreli.
10. Dr. Rajani Bisen, PC Unit (Sesame and Niger), JNKVV, Jabalpur
11. Dr. Renu Pandey, Indian Agricultural Research Institute, New Delhi
12. Dr. Parimalan Rangan, NBPGR New Delhi.
13. Dr. Vandana Rai, NIPB, New Delhi
14. Dr. Kapil K. Tiwari, Sardarkrushinagar Dantiwada Agricultural University, Gujarat.
15. Dr. Abhishek Rathore, The International Crops Research Institute for the Semi-Arid Tropics, Hyderabad
16. Dr. UB Angadi, IASRI, New Delhi
17. Dr. Dinesh Kumar IASRI, New Delhi
18. Dr. G.P. Rao, IARI, New Delhi
19. Dr. S.C. Dubey, National Bureau of Plant Genetic Resources, New Delhi
20. Dr. Celia Chalam, National Bureau of Plant Genetic Resources, New Delhi
21. Dr. G. Senthilraja, TNAU-Regional Research Station, Vridachalam
22. Dr. Pankaj Sharma, Punjab Agricultural University, Ludhiana.
23. Dr. Kailash Narayan Gupta, PC Unit (Sesame and Niger), JNKVV, Jabalpur
24. Dr. Kartar Singh, National Bureau of Plant Genetic Resources, RS, Jodhpur
25. Dr. Sapna NBPGR, New Delhi

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Mainstreaming sesame germplasm for productivity enhancement and sustainability through genomics assisted core development and trait discovery" under mission programme of "Minor Oilseeds of Indian Origin" for a period of 5 Years at a total cost of Rs. 319838600.00 (Rupees thirty one crore ninety eight lakh thirty eight thousand six hundred only) as per details in Para's below:

2. The Project:

2.1 Title: Minor Oilseeds of Indian Origin: Mainstreaming sesame germplasm for productivity enhancement and sustainability through genomics assisted core development and trait discovery.

2.2 Project Coordinator: Dr. Kuldeep Singh, Director, NBPGR, New Delhi.

2.3 Project Co-coordinator: Dr. Rashmi Yadav, NBPGR, New Delhi & Dr. Ashok Kumar, NBPGR, New Delhi.

2.4 Principal Investigators and Coordinators of the Sub-projects:

A. Sub Project – 1: Phenotyping of Sesame Germplasm for Agro morphological Traits. There are 07 components in this sub-project:

- i. **Component-1: NBPGR, New Delhi**
 - Co-Coordinator and PI-Dr. Rashmi Yadav
 - Co-PIs-Dr. Ashok Kumar; Dr. RadhamaniJalli; Mr. Aravind; Dr. Vikender Kaur; Dr. V.S. Meena
- ii. **Component-2: Punjab Agricultural University, Ludhiana.**
 - PI-Dr. Indu Railch
 - Co-PI-Dr. Surinder K. Sandhu
- iii. **Component-3: TNAU-Regional Research Station, Vridachalam.**
 - PI-Dr. A. Mahalingam.
 - Co-PI-Dr. A. Mothilal
- iv. **Component-4: AUJ-Agricultural Research Station, Mandor, Jodhpur.**
 - PI-Dr. S. R. Kumhar
 - Co-PI-Mrs. Neelam Geat
- v. **Component-5: JAU-Agricultural Research Station, Amreli.**
 - PI-Dr. V. N. Gohil
 - Co-PI-Dr V.R. Akbari
- vi. **Component-6: PC Unit (Sesame and Niger), JNKVV, Jabalpur**
 - PI-Dr. Rajani Bisen
 - Co-PI-Mrs. Roshni Sahu
- ii. **Component-7: IARI, New Delhi**
 - PI-Dr. Renu Pandey

Sub Project-2: Genotyping of Sesame Germplasm Following High Throughput Genomics: There are 05 nponents in this sub-project:

- Component-1: NBPGR, New Delhi.**
 - PI & Coordinator for Genotyping -Dr. Parimalan Rangan, NBPGR New Delhi.
 - Co-PIs-Dr. Rashmi Yadav & Dr. S. Rajkumar

 1

Please see page No. 2, 7, 9 and 23 for Subproject-4 details

- ii. Component-3: NIPB, New Delhi
PI-Dr. Vanchana Rai
- iii. Component-3: SDAU, Gujarat
PI-Dr. Kapil K. Tiwari
Co-PIs-Dr. Anuj Kumar Singh, Mr. Jigneshkumar R. Patel
- iv. Component-4: ICRISAT, Hyderabad
PI-Dr. Abhishek Rathore
- v. Component-5: IASRI, New Delhi
PI - Dr. UB Angadi, Dr. Dinesh Kumar
CO-PI- Dr. Dinesh Kumar, Dr DC Mishra

C. Sub Project-3: Identification of Biotic Stress (Phyllody & Dry Root Rot) Tolerant Sesame Genotypes. Coordinator for Phyllody: Dr. G.P. Rao & Coordinator for Dry Root Rot: Dr. S.C. Dubey. There are 07 components in this sub-project:

- i. Component-1: NBPGR, New Delhi
PI-Dr. Celia Chalam
Co-PI -Dr. S.C. Dubey; Dr. T. Boopati; Dr. Pardeep Kumar; Dr. Kartar Singh (RS, Jodhpur)
- ii. Component-2: TNAU-Regional Research Station, Vridachalam
PI-Dr. G. Senthilraja
Co-PI-Dr. A. Mahalingam; Dr. A. Mothilal
- iii. Component-3: PAU, Ludhiana
PI-Dr. Pankaj Sharma
Co-PI-Dr. Surinder K. Sandhu; Dr. InduRailch
- iv. Component-4: NBPGR, New Delhi
PI-Dr. S.C. Dubey
Co-PIs -Dr. Celia Chalam; Dr. T. Boopati; Dr. Pardeep Kumar; Dr. Kartar Singh (RS, Jodhpur)
- v. Component-5: IARI, New Delhi
PI-Dr. G.P. Rao
- vi. Component-6: PC Unit (Sesame and Niger), JNKVV, Jabalpur
PI-Dr. Kailash Narayan Gupta
Co-PIs-Dr. Anand Kumar Panday; Dr. Rajani Bisen
- vii. Component-7: NBPGR, RS, Jodhpur
PI-Dr. Kartar Singh
Co-PI-Dr. Neelam Shekhawat

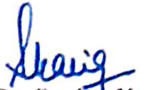
D. Sub Project-4: Chemo-Profiling of Sesame Germplasm. There are 03 components in this sub-project:

- i. Component-1: NBPGR, New Delhi
PI-Dr. Sapna
- ii. Component-2: IARI, New Delhi
PI-Dr. Virendra Rana
Co-PI-Dr. Najam Akhtar Shakil
- iii. Component-3: PAU, Ludhiana
PI-Dr. Sanjula Sharma

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Other Terms & Conditions:

- i. The Director, NBPGR, New Delhi shall be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.
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(Dr. Sanjay Kalia)
Scientist 'E'

To,

The Pay & Accounts Officer,
Ministry of Science & Technology
Department of Biotechnology
New Delhi – 110 003.

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2. The director, NBPGR, New Delhi.
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4. Dr. Rashmi Yadav, Project Co-coordinator, National Bureau of Plant Genetic Resources, New Delhi
5. Dr. Ashok Kumar, Project Co-coordinator, National Bureau of Plant Genetic Resources, New Delhi
6. Dr. Indu Railch, Punjab Agricultural University, Ludhiana.
7. Dr. A. Mahalingam, TNAU-Regional Research Station, Vridachalam.
8. Dr. S. R. Kumhar, AUJ-Agricultural Research Station, Mandor, Jodhpur.
9. Dr. V. N. Gohil, JAU-Agricultural Research Station, Amreli.
10. Dr. Rajani Bisen, PC Unit (Sesame and Niger), JNKVV, Jabalpur
11. Dr. Renu Pandey, Indian Agricultural Research Institute, New Delhi
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13. Dr. Vandana Rai, NIPB, New Delhi
14. Dr. Kapil K. Tiwari, Sardarkrushinagar Dantiwada Agricultural University, Gujarat.
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16. Dr. UB Angadi, IASRI, New Delhi
17. Dr. Dinesh Kumar IASRI, New Delhi
18. Dr. G.P. Rao, IARI, New Delhi
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20. Dr. Celia Chalam, National Bureau of Plant Genetic Resources, New Delhi
21. Dr. G. Senthilraja, TNAU-Regional Research Station, Vridachalam
22. Dr. Pankaj Sharma, Punjab Agricultural University, Ludhiana.
23. Dr. Kailash Narayan Gupta, PC Unit (Sesame and Niger), JNKVV, Jabalpur
24. Dr. Kartar Singh, National Bureau of Plant Genetic Resources, RS, Jodhpur
25. Dr. Sapna NBPGR, New Delhi



UK Research and Innovation



Centre for Ecology & Hydrology

NATURAL ENVIRONMENT RESEARCH COUNCIL

Centre for Ecology & Hydrology
Bush Estate
Penicuik, Midlothian
EH26 0QB
United Kingdom

Telephone: +44 (0) 131 4454343
Main Fax: +44 (0) 131 4453943
www.ceh.ac.uk
sanh-office@ceh.ac.uk
DATE: 30/05/2020

Grant Ref: NE/S009019/1

Dear SANH Co-Investigator at Indian Agricultural Research Institute,

This letter is provided by the Centre for Ecology and Hydrology of the Natural Environment Research Centre, as co-ordinating partner of the UKRI GCRF South Asian Nitrogen Hub project. UK Research and Innovation (UKRI) is offering a grant through the Natural Environment Research Centre towards the costs of the UKRI GCRF South Asian Nitrogen Hub.

The total allowable Full Economic Costs (i.e. FEC) of the project for your institution are listed below (in GBP):

Partner	Firm Budget FEC (Years 1-3)	Provisional Budget FEC (Years 4 & 5)
Indian Agricultural Research Institute	349,632	233,087

Please note that as a South Asian Research Partner Organisation (RPO) the grant value (i.e. percentage of costs which can be reclaimed) is 100% of total cost (FEC).

In order to account for inflation over the term of the project, UKRI has increased the level of total allowable costs, by an indexation rate of around 2%. Please note this increase HAS been included in the above table.

Regards

Professor Mark Sutton,
UKRI GCRF South Asian Nitrogen Hub Director



भारतीय कृषि अनुसंधान परिषद
Indian Council of Agricultural Research
राष्ट्रीय कृषि विज्ञान कोष
National Agricultural Science fund (NASF)
भारतीय कृषि अनुसंधान भवन-1, पूसा परिसर, नई दिल्ली-110012
Krishi Anusandhan Bhavan-I, Pusa Campus New Delhi-110012

F. No. NASF/GTR-8024/2020-21

Dated: 31.12.2020

To,

The Director,
Agharkar Research Institute,
Pune-411 004

Subject: Sanction letter for the Research project entitled, "Fine mapping and marker-assisted breeding for alternative dwarfing genes *Rht14* and *Rht18* to develop semidwarf wheat genotype suitable for conservation agriculture" under the National Agricultural Science Fund (NASF)

Sir,


The Empowered Committee (EC) of the NASF, considered the proposal on "Fine mapping and marker-assisted breeding for alternative dwarfing genes *Rht14* and *Rht18* to develop semidwarf wheat genotype suitable for conservation agriculture" in its 41st meeting held on 25th September, 2020 and approved for implementation under the NASF. The total cost of this project is ₹ 152.88224 lakhs (Rupees One crore fifty two lakh eighty eight thousand two hundred and twenty four only) for a period of 3 years (January, 2021 to December, 2023). The financial sanction of the competent authority for the project is now being accorded for the period from 1st January 2021 to 31st March 2021. The sanction for the period from 1st April 2021 till the end of the project i.e. 31st December 2023 will be conveyed later. The release of fund will be through PFMS/FMS-MIS and the funded centre need to comply accordingly.

- a. **Name of the Lead Centre**
MACS- Agharkar Research Institute, Pune-411 004
- b. **Name & Designation of the Principal Investigator**
Dr. Ravindra M. Patil, Scientist D, MACS - Agharkar Research Institute, Pune-411 004
- c. **Names of Cooperating Centre**
ICAR-Indian Agricultural Research Institute, New Delhi -110012
- d. **Name & Designation of the Cooperating Centre Principal Investigator**
Dr. Harikrishna, Scientist, ICAR-Indian Agricultural Research Institute, New Delhi -110012

- (iii) The intellectual properties may be licensed against a fee (premium) which may be in a lump sum or with royalty for a fixed/defined period of time.
 - (iv) The intellectual properties to be licensed on exclusive basis or non-exclusive basis will be decided by the ICAR depending upon the welfare/gains considerations or public consideration or public welfare embedded in the intellectual properties.
 - (v) Whereas a minimum price for the intellectual properties is to be evaluated, it may not be rigidly adhered to; and the offers made by different parties shall be given due consideration in consultation with the Empowered Committee on the basis of recommendations of ICAR. The spirit behind this should be to commercialize the intellectual properties in the best interest of the investment.
 - (vi) If one or more of the partners (i.e., the Lead or Cooperating Centre) of the Project is (are) interested to commercialize the intellectual properties, it may be given preference over other parties at mutually agreed terms and conditions between the interested partner and the ICAR.
 - (vii) The ICAR will hold the right to use the intellectual property for non-commercial purposes in public interest.
 - (viii) The services of the inventor(s) rendered subsequent to the transfer of intellectual property may entail earning of charges/fees etc., distribution of which will be as per the clause stated in para 4(ii) above.
 - (ix) It will not be incumbent upon the ICAR to protect every Intellectual Property (IP) generated from the Project. On refusal by the ICAR to own the IP, the inventor(s) shall be free to protect it at their own cost provided ICAR has no objection to it in public interest.
6. The PI and the CCPI will not be removed/ transferred from the project without the prior consent of the Empowered Committee of the NASF.
7. The decision of the Empowered Committee of the NASF will be final in all matters of the project.

Receipt of this letter may please be acknowledged. The PI is requested to make copies of the sanction letter along with all the Annexures and distribute the same to the CCPI(s) and the heads of the Lead and Cooperating Centers.

Yours faithfully,


(Sanjeev Saxena)
ADG (NASF)

Copy for information and necessary action to:

- (i) PI of the project
- (ii) Head of Cooperating Centre
- (iii) F&AO, NASF Secretariat
- (iv) Office copy



सत्यमेव जयते

INDIA NON JUDICIAL

Government of National Capital Territory of Delhi

e-Stamp

Certificate No. : IN-DL75572635726826S
Certificate Issued Date : 03-Sep-2020 02:08 PM
Account Reference : IMPACC (IV)/ d1990303/ DELHI/ DL-DLH
Unique Doc. Reference : SUBIN-DL75572635726826S
Purchased by : DR RENU PANDEY
Description of Document : Article 5 General Agreement
Property Description : Not Applicable
Consideration Price (Rs.) : 0
(Zero)
First Party : DR RENU PANDEY
Second Party : DEPARTMENT OF BIOTECHNOLOGY
Stamp Duty Paid By : DR RENU PANDEY
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



Please write or type below this line.

MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on this Third day of September Two Thousand and Twenty BY AND BETWEEN President of India, acting through, Adviser, Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, hereinafter referred to as the 'DBT' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART;

AND

Indian Agricultural Research Institute (Deemed to be University), a society under the Societies Registration Act – 1860, having its registered office at Pusa

Statutory Alert:

1. The authenticity of this Stamp Certificate should be verified at "www.sholestamp.com". Any discrepancy in the details on this Certificate available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority

-1-

AKR



Dr. RENU PANDEY
Principal Scientist
Principal Investigator, DBT Project
Division of Plant Physiology
Indian Agricultural Research Institute

Campus, New Delhi 110012, hereinafter referred to as IARI, (which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART;

WHEREAS DBT being desirous of "Biotechnological Approach for Crop Improvement" decided to support a project submitted by Dr. RENU PANDEY, Principal Scientist, Division of Plant Physiology, IARI for the attainment of the objectives, hereinafter described in the Annexure I annexed hereto;

This Memorandum of Agreement (MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the "Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality (Sub-project 3: Evaluation of wheat germplasm for abiotic stresses; Component 7: Nutrient use efficiency)".

NOW THE PARTIES HERETO AGREE AS FOLLOWS: -

1.0 ROLE OF DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI

To provide funds to the extent of Rs. 59,04,160.00 (Rupees Fifty-Nine Lakhs Four Thousand One Hundred and Sixty Only) over a period of FIVE years from the date of sanction of the project, to IARI for undertaking activities as detailed in Annexure 1. Details of the funds to be provided are given in Annexure II.

2.0. ROLE OF IARI, NEW DELHI

- 2.1. To provide their contribution of Rs. NIL for NIL years from date of sanction of the project as detailed in Annexure – II. (if a jointly supported project)
- 2.2. To provide existing facilities as mentioned in the project document.
- 2.3. To be responsible for accomplishing objectives identified and activities listed.
- 2.4. To allow the Scientists authorized by DBT to work with the Research & Development team of the center in all stages of process development and production.
- 2.5. To recruit all scientific and non-scientific staff as sanctioned by DBT.
- 2.6. To prepare and submit all periodical reports and other documents that would be required by DBT.
- 2.7. To maintain a separate audit head of account for the grants received from DBT for the project.
- 2.8. To submit an annual audited statement of expenditure incurred under the project.
- 2.9. To ensure effective utilization of the grant given by DBT for the purpose for which it was granted and to ensure timely progress of project work.
- 2.10. The manpower, both scientific and non-scientific, recruited shall be purely on contractual terms & conditions such that the contract for engagement of the manpower shall run concurrently with the said project period only.

8.0 ARBITRATION

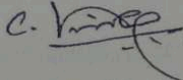

In the event of any question, dispute or difference whatsoever arising between the parties to this Agreement out of or relating to the construction, meaning, scope, operation or effect of this Agreement or the validity of the breach thereof shall be referred to an Arbitrator to be appointed by mutual consent of both the parties herein. If the parties cannot agree on the appointment of the Arbitrator within a period of one month from the notification by one party to the other of existence of such dispute, then the Arbitrator shall be nominated by the Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. The provisions of the Arbitration and Conciliation Act, 1996 will be applicable and the award made thereunder shall be final and binding upon the parties hereto, subject to legal remedies available under the law. Such differences shall be deemed to be a submission to arbitration under the Indian Arbitration and Conciliation Act, 1996, or of any modifications or reenactments thereof.

9.0. GOVERNING LAW

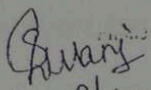
This Contract shall be governed by the Law of India for the time being in force.

IN WITNESS WHEREOF the parties hereto have signed, sealed and delivered this Agreement on the day, month and year first above written in presence of:

Witnesses:

1.  7/9/2020
 Dr. VISWANATHAN CHINNUSAMY
Head & Principal Scientist
Division of Plant Physiology
ICAR-Indian Agricultural Research Institute
New Delhi-110012


Signed by _____
(Designation)

2. 
Dr. Shivani Mehan.
Scientist
Div. of Plant Physiology.

For and on behalf of
The President of India

Witnesses:

1.


Signed by _____
(Designation)

For and on behalf of
Indian Agricultural Research Institute,
New Delhi 110012


2.

डॉ. अशोक कुमार सिंह / Dr. Ashok Kumar Singh
संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)
भा.कृ.अ.प. - भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली-110012 / New Delhi - 110012

In case the grantee is not in a position to execute or complete the project, it may be required to refund forthwith to the Govt. of India (Department of Biotechnology) the entire amount of grant received by it.

18. The human resources that may be engaged for the project by the Institute are not to be treated as employees of the Govt. of India and the deployment of such human resource at the time of completion or termination of project, will not be the concern/responsibility of the Govt. of India. The Organisation may make reservations for Scheduled Castes, Schedule Tribes etc. in the human resource to be engaged for the project in accordance with the instruction issued by the Govt. of India from time to time.
19. The Deptt. of Biotechnology reserves the right to terminate the grant at any stage and also to recover the amounts already paid if it is convinced that the grant has not been properly utilized or the work on the project has been suspended for any unduly long period or appropriate progress is not being made.
20. The project will become operative with effect from the date of release of the first installment for the project.
21. If the Investigator to whom a grant for a project has been sanctioned leaves the institution where the project is being implemented, he shall submit five copies of complete and detailed report of the work done by him on the project and the money spent till the date of his/her release and shall also arrange to refund the unspent balance, if any.
22. The organization should maintain subsidiary accounts of the Govt. of India grant and furnish it to the Audit Officer as and when the recurring and non-recurring expenditure exceeds the limits of Rs. 5.00 lakhs.

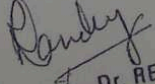
Signature of Project Coordinator
(applicable only for multi-
institutional projects)
Date:


Signature of Executive Authority of Institute/
University With seal

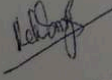
Date:

डा. अशोक कुमार सिन्हा, प्र. प्र. प्र.
अनुसंधान) / Joint Director (Research)
भा. कृ. अ. प. - भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली-110012 / New Delhi - 110012

Signature and stamp of Principal Investigator:
Date: 04/09/2020


Dr. RENU PANDEY
Principal Scientist
Principal Investigator, DBT Project
Division of Plant Physiology
ICAR-Indian Agricultural Research Institute
New Delhi 110012

Signature and stamped of Co-Investigator
Date: 05/09/2020


Dr. L. K. SINGH
Sr Scientist
Division of Plant Physiology
IARI, New Delhi-110012



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Government of National Capital Territory of Delhi

e-Stamp

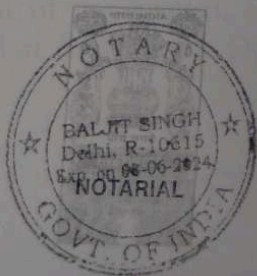
सत्यमेव जयते

Certificate No. : IN-DL88967303210992T
Certificate Issued Date : 24-Jun-2021 11:17 AM
Account Reference : IMPACC (IV)/ dl927103/ DELHI/ DL-DLH
Unique Doc. Reference : SUBIN-DL92710376704323637519T
Purchased by : ICAR NBPGR
Description of Document : Article 5 General Agreement
Property Description : Not Applicable
Consideration Price (Rs.) : 0
 : (Zero)
First Party : ICAR NBPGR
Second Party : ICAR IARI
Stamp Duty Paid By : ICAR NBPGR
Stamp Duty Amount(Rs.) : 100
 : (One Hundred only)



Please write or type below this line.

DOCUMENT
ATTACHED



Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at 'www.shplestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate in case of any discrepancy please inform the Competent Authority.

Attached with e-stamp certificate no. IN-DL88967303210992T

MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on 24th day of June day of Two Thousand and Twenty One BY AND BETWEEN Department of Biotechnology (DBT), Govt of India acting through Coordinating Institute i.e., National Bureau of Plant Genetic Resources, New Delhi, hereinafter referred to as the 'ICAR-NBPGR' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in- office and assigns) of the ONE PART

AND

ICAR-Indian Agricultural Research Institute, New Delhi-12, a constituent of the Indian Council of Agricultural Research(ICAR), a society under the Societies Registration Act - 1860, having its registered office in/at New Delhi, herein after referred to as IARI New Delhi (which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART

WHERE AS ICAR-NBPGR being desirous of Germplasm Genomics in Wheat decided to support a project submitted by NBPGR on behalf of all collaborating centers including Dr. Anju Mahendru Singh, Principal Scientist, Division of Genetics, IARI New Delhi, for the attainment of the objectives, hereinafter described in the Annexure I annexed hereto

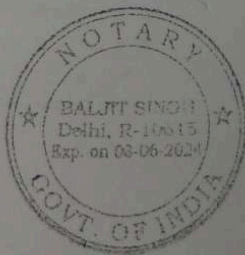
This Memorandum of Agreement (MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the project entitled "Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional Quality".

NOW THE PARTIES HERETO AGREE AS FOLLOWS:-

1.0 ROLE OF NATIONAL BUREAU OF PLANT GENETIC RESOURCES, NEW DELHI

To provide funds to the extent of **INR 85,05,520/- (INR Eighty Five lakhs Five Thousand Five Hundred Twenty only)** over a period of five years from the date of sanction of the project, to **ICAR-IARI New Delhi**, for undertaking activities as detailed in Annexure 1. Details of the funds to be provided are given in Annexure II.

Cont. .2



AKH

9.0. GOVERNING LAW

:: 5 ::

This Contract shall be governed by the Law of India for the time being in force.

IN WITNESS WHEREOF the parties hereto have signed, sealed and delivered this Agreement on the day, month and year first above written in presence of:

Witnesses:

1.

2.

Signed by -----

For and on behalf of ICAR-NBPGR

Witnesses:

1. *Arjun Mahendou Singh*
(Arjun Mahendou Singh)

2. *Neelu Jain*
(Neelu Jain)



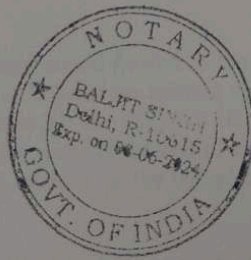
डॉ० नीलू जैन / Dr. Neelu Jain
प्रधान वैज्ञानिक / Principal Scientist
आनुवंशिकी / Department of Genetics
मा.क.अनु.प. - भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली 110012 / New Delhi-110012

A.K. Singh

Signed by Dr. A.K Singh

डॉ० अशोक कुमार सिंह / Dr. Ashok Kumar Singh
संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)
मा.क.अनु.प. - भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली 110012 / New Delhi-110012

For and on behalf of IARI New Delhi



ATTESTED
Baljit Singh
BALJIT SINGH
NOTARY DELHI, R-10615
Government of India

24 JUN 2021

Rajesh Kumar
Signed/Put L.L. in my presence
Adv. Rajesh Kumar (D-1049/14)
129, Rajendra Bhawan, Rajendra Place,
New Delhi-08. ☎ +91-9968639693



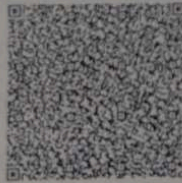
सत्यमेव जयते

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Government of National Capital Territory of Delhi

e-Stamp

Certificate No. : IN-DL92589555385277T
Certificate Issued Date : 02-Jul-2021 02:40 PM
Account Reference : IMPACC (IV)/ dl773903/ DELHI/ DL-DLH
Unique Doc. Reference : SUBIN-DL77390383699721961097T
Purchased by : ICAR IARI
Description of Document : Article 5 General Agreement
Property Description : Not Applicable
Consideration Price (Rs.) : 0
(Zero)
First Party : PRESIDENT OF INDIA ACTING THROUGH SECRETARY DBT MINISTRY
OF SCIENCE AND TECHNOLOGY GOVT OF INDIA
Second Party : ICAR IARI
Stamp Duty Paid By : ICAR IARI
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



Please write or type below this line.....

Mohi

Rabind

Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at www.shoestamp.com/ or using e-Stamp Mobile App of Stock Holding Corporation of India.
Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

Certificate No.

: IN-DL92589555385277T

(MODEL FORMAT FOR MEMORANDUM OF AGREEMENT for Government Institutions. To be prepared in Rs. 100/- Non Judicial Stamp paper and each page of MoA needs to be signed and stamped)

MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on this 3rd July day of Two Thousand and Twenty-One BY AND BETWEEN President of India, acting through Dr Vaishali Panjabi, Scientist(E), Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, hereinafter referred to as the 'DBT' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART;

AND

ICAR-IARI, New Delhi-110012 is an institute under Indian Council of Agricultural Research, having its registered office in/at Pusa campus, New Delhi-110012, hereinafter referred to as ICAR-IARI (which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART;

WHEREAS DBT being desirous of expanding the activities of Biotech-KISAN Hub in the aspirational districts of Rajasthan (3), Haryana(1) and Uttar Pradesh (3) decided to support a project submitted by Dr. R.N.Padaria, ICAR-IARI, New Delhi-110012 for the attainment of the objectives, hereinafter described in the Annexure I annexed hereto;

This Memorandum of Agreement (MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the "Expansion activities of Biotech Kisan Hub in three Aspirational Districts of Rajasthan, one Aspirational District of Haryana and three Aspirational Districts of Uttar Pradesh."

NOW THE PARTIES HERETO AGREE AS FOLLOWS: -

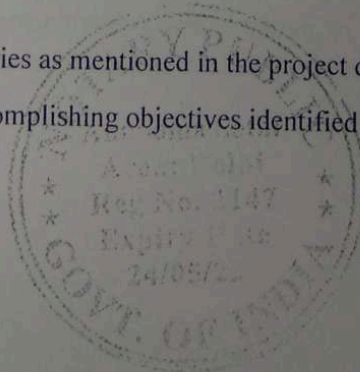
1.0 . ROLE OF DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI

To provide funds to the extent of Rs 336 lakhs over a period of TWO YEARS from the date of sanction of the project, to Dr. R.N.Padaria, ICAR-IARI, New Delhi-110012 for undertaking activities as detailed in Annexure I. Details of the funds to be provided are given in Annexure II.

2.0. ROLE OF ICAR-IARI, New Delhi-110012 (Institute/NGO)

- 2.1. To provide their contribution of (NIL) for *TWO* years from date of sanction of the project as detailed in Annexure – II. (*provide the cost in place of NIL if a jointly supported project*).
- 2.2. To provide existing facilities as mentioned in the project document.
- 2.3. To be responsible for accomplishing objectives identified and activities listed.

Archi



Rajiv

Certificate No.

: IN-DL92589555385277T

Signed by -----

(Designation)

For and on behalf of The President of India

Signatures of two witnesses (from DBT):

i.

ii.

Signed and stamped by:

AKSHI

Joint Director (Research)

ICAR-IARI, New Delhi-110012

डॉ. अशोक कुमार सिंह / Dr. Ashok Kumar Singh
संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)
भारतभारत - भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली-110012 / New Delhi - 110012

(Please also mentioned name and designation of Executive Authority of Institute/ University/ Organization) -----

For and on behalf of ICAR-IARI, New Delhi-110012

Name, Signature and stamp of Two Witnesses (from Institute/ University/ Organization):

i.

Rajiv

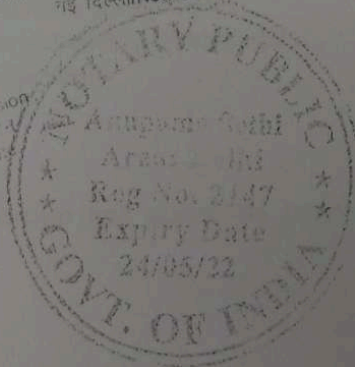
श्री. राजीव राय वर्मान / Dr. Rajiv Ray Burman
पी.आई., बायोटेक-किसान-एक्सपेंडिचर
P.I., Biotech-KISAN-Aspirational
कृषि प्रसार संगम / Division of Agricultural Extension
भा.क.अनु.प.-भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली-110012 / New Delhi- 110012

Rajiv Ray Burman
डा. राजीव राय वर्मान / Dr. R.R. Burman
प्रधान वैज्ञानिक / Principal Scientist
कृषि प्रसार संगम / Division of Agricultural Extension
भा.क.अनु.प.-भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली / New Delhi-110012

ii.

Sitaram

सीताराम बिश्नोई / Sitaram Bishnoi
वैज्ञानिक / Scientist
कृषि प्रसार संगम / Division of Agricultural Extension
भा.क.अनु.प.-भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली / New Delhi-110012



NOTARY PUBLIC

ATTESTED

ATTESTED

Sitaram

NOTARY PUBLIC

10 2 JUL 2021



सत्यमेव जयते

INDIA NON JUDICIAL

Government of National Capital Territory of Delhi

e-Stamp

Certificate No. : IN-DL75573318182042S
Certificate Issued Date : 03-Sep-2020 02:08 PM
Account Reference : IMPACC (IV)/ dl990303/ DELHI/ DL-DLH
Unique Doc. Reference : SUBIN-DL99030358632286348433S
Purchased by : DR RENU PANDEY
Description of Document : Article 5 General Agreement
Property Description : Not Applicable
Consideration Price (Rs.) : 0
(Zero)
First Party : DR RENU PANDEY
Second Party : DEPARTMENT OF BIOTECHNOLOGY
Stamp Duty Paid By : DR RENU PANDEY
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



Please write or type below this line

MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on this Third day of September Two Thousand and Twenty BY AND BETWEEN President of India, acting through, Adviser, Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, hereinafter referred to as the 'DBT' (which expression unless excluded by or repugnant to the subject shall mean and include its successor-in-office and assigns) of the ONE PART;

AND

Indian Agricultural Research Institute (Deemed to be University), a society under the Societies Registration Act -- 1860, having its registered office at Pusa

Statutory Alert:

1. The authenticity of this Stamp Certificate should be verified at "www.shoilestamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

-1-

AA-10

Pandey

Dr. RENU PANDEY
Principal Scientist
Principal Investigator, DBT Project
Division of Plant Physiology
National Research Institute

Campus, New Delhi 110012, hereinafter referred to as IARI, (which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART;

WHEREAS DBT being desirous of "Biotechnological Approach for Crop Improvement" decided to support a project submitted by Dr. RENU PANDEY, Principal Scientist, Division of Plant Physiology, IARI for the attainment of the objectives, hereinafter described in the Annexure I annexed hereto;

This Memorandum of Agreement (MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the "Mainstreaming of Sesame germplasm for productivity enhancement and sustainability through genomics assisted core development and trait discovery (Sub projects 1 & 5 - Plant Physiology)".

NOW THE PARTIES HERETO AGREE AS FOLLOWS: -

1.0 ROLE OF DEPARTMENT OF BIOTECHNOLOGY, NEW DELHI

To provide funds to the extent of Rs. 1,30,56,160.00 (Rupees One Crore Thirty Lakhs Fifty-Six Thousand One Hundred and Sixty Only) over a period of FIVE years from the date of sanction of the project, to IARI for undertaking activities as detailed in Annexure 1. Details of the funds to be provided are given in Annexure II.

2.0. ROLE OF IARI, NEW DELHI

- 2.1. To provide their contribution of Rs. NIL for NIL years from date of sanction of the project as detailed in Annexure – II. (if a jointly supported project)
- 2.2. To provide existing facilities as mentioned in the project document.
- 2.3. To be responsible for accomplishing objectives identified and activities listed.
- 2.4. To allow the Scientists authorized by DBT to work with the Research & Development team of the center in all stages of process development and production.
- 2.5. To recruit all scientific and non-scientific staff as sanctioned by DBT.
- 2.6. To prepare and submit all periodical reports and other documents that would be required by DBT.
- 2.7. To maintain a separate audit head of account for the grants received from DBT for the project.
- 2.8. To submit an annual audited statement of expenditure incurred under the project.
- 2.9. To ensure effective utilization of the grant given by DBT for the purpose for which it was granted and to ensure timely progress of project work.
- 2.10. The manpower, both scientific and non-scientific, recruited shall be purely on contractual terms & conditions such that the contract for engagement of the manpower shall run concurrently with the said project period only.

Handwritten signature

-2-



Handwritten signature: Renu Pandey
Dr. RENU PANDEY
Principal Scientist
Principal Investigator, DBT Project
Division of Plant Physiology
Agricultural Research Institute
New Delhi - 110012

8.0 ARBITRATION

In the event of any question, dispute or difference whatsoever arising between the parties to this Agreement out of or relating to the construction, meaning, scope, operation or effect of this Agreement or the validity of the breach thereof shall be referred to an Arbitrator to be appointed by mutual consent of both the parties herein. If the parties cannot agree on the appointment of the Arbitrator within a period of one month from the notification by one party to the other of existence of such dispute, then the Arbitrator shall be nominated by the Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. The provisions of the Arbitration and Conciliation Act, 1996 will be applicable and the award made thereunder shall be final and binding upon the parties hereto, subject to legal remedies available under the law. Such differences shall be deemed to be a submission to arbitration under the Indian Arbitration and Conciliation Act, 1996, or of any modifications or reenactments thereof.

9.0. GOVERNING LAW

This Contract shall be governed by the Law of India for the time being in force.


IN WITNESS WHEREOF the parties hereto have signed, sealed and delivered this Agreement on the day, month and year first above written in presence of:

Witnesses:

1.  7/9/2020



Dr. VISWANATHAN CHINNUSAMY
Head & Principal Scientist
Division of Plant Physiology
ICAR-Indian Agricultural Research Institute
New Delhi-110012


2. 
Dr SHIVANI NAGAR
Scientist
Div. of Plant Physiology

Signed by -----
(Designation)

For and on behalf of
The President of India

Witnesses:

1.

Signed by  -----
(Designation)

For and on behalf of
Indian Agricultural Research Institute,
New Delhi 110012

2.

डॉ. अशोक कुमार सिंह / Dr. Ashok Kumar Singh
संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)
भा.कृ.अ.प. - भारतीय कृषि अनुसंधान संस्थान
ICAR-Indian Agricultural Research Institute
नई दिल्ली-110012 / New Delhi - 110012

1257
2021



Speed Post 639
केन्द्रीय लुग्दी एवं कागज अनुसंधान संस्थान
Central Pulp & Paper Research Institute
An autonomous organisation under the administrative control of
Ministry of Commerce & Industry, Govt. Of India
(Registered under Societies Act)

CPPRI /EMD /RSC-DCPPAI / IARI – Project /2021/501

15.9 2021

To
The Director
ICAR- Indian Agricultural Research Institute
New Delhi -110012

Subject: Project Proposal, "Assessment of Land, Water and Environmental Resources Degradation by Irrigation with Treated Paper Mill Effluents through Modern Water Application Techniques – Communication of the Approval reg.

Ref. :1. Letter No. : S.No -4 /16 /2021 -PME – (Yojna) dated 1.4.2021 duly forwarded by the ADG (Seeds) ICAR New Delhi, and

2. Letter from Dr. A. K. Mishra (P.I.) dated 3.4.2021

Dear Sir,

This refers our communication no CPPRI /EMD /RSC-DCPPAI / IARI – Project /2021 18.5.2021 (copy enclosed)

It is to inform that due to a typographical mistake the approved project budget share of IARI has been wrongly mentioned as Rs 56.5 Lakhs (Rupees Fifty Six Lakhs and Fifty Thousand Only). The actual approved budget of IARI is Rs 57.5 Lakhs (Rupees Fifty Seven Lakhs and Fifty Thousand Only).

The error and the inconvenience caused , if any is sincerely regretted.

Thanking You

Yours sincerely

(Dr M. X. Gupta)

Director I/C & Member Secretary
RSC-DCPPAI

रिजिस्ट्रार
गुवाहाटी
21/9/21

Encl: As Above

I/c, PME

Post Box No. 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR 247001 (U.P.) INDIA
Tel. Direct (0132) 2714050, Tel. EPABX (0132) 2714053, 2714061, 2714062
Cable : CEPPRI, Saharanpur, Fax (0132) 2714052, website : www.cppri.org.in
Email : director.cppri@gmail.com, director@cppri.org.in, info@cppri.org.in

BASE OFFICE

A-55, 3rd Floor, Gujranwala Town, Part-1, Near Vinayak Hospital, Delhi-110 009
Phone - (011)-49027213, 9910909169

R.C
2/2/21

SERB-Notification

3 messages

Dr. Harish Kumar <ms_as@serbonline.in>
To: serbinfo1@gmail.com

Fri, Sep 10, 2021 at 5:56 PM



Science and Engineering Research Board
(Statutory Body Established Through an Act of Parliament : SERB Act 2008)
Department of Science and Technology, Government of India

SCIENCE & ENGINEERING RESEARCH BOARD (SERB)

(Statutory Body Established Through an Act of Parliament : SERB Act 2008)

Science and Engineering Research Board
5 & 5A, Lower Ground Floor
Vasant Square Mall
Sector-B, Pocket-5
Vasant Kunj
New Delhi - 110 070

Approval Letter

File Number: CRG/2021/003808

Dated: 10-Sep-2021

Subject: Project titled "Molecular Insights to Understand the Mechanisms of Resistance to Fall Army Worm (*Spodoptera frugiperda* J.E. Smith) and Spotted Stem Borer (*Chilo partellus* Swinhoe) in Tropical Field Corn (*Zea mays* L.)".

Dear Dr. Ganapati Mukri,

The project cited above has been recommended by the related **Core Research Grant** to the Science and Engineering Research Board (SERB) for funding. The following are the items recommended for a period of 3 years. The final budget to be sanctioned would be based on quotations received, existing norms, funds availability etc.

The committee recommended the following budget

Manpower :

-> Junior Research Fellow - One

-> Laboratory Assistant - One

Equipment Details : NIL

Consumables : Rs.2700000/-

Travel Cost : As per norms

Contingencies : As per norms

Overhead : As per norms

You need to accept the above budgetary allocation before proceeding further. To accept the budgetary recommendations, you may follow the following steps :

1. Go to www.serbonline.in through your credentials
2. Go to Menu --> Proposal submission --> View submitted proposals
3. Click on the link under Status column "Proposal Approved, Acknowledgment pending from PI"

//mail.google.com/mail/u/0/?ik=fc9f6e1b33&view=pt&search=all&permthid=thread-f%3A1710517588756118812&simpl=msg-f%3A17105

FILE NO. CRG/2021/003808
SCIENCE & ENGINEERING RESEARCH BOARD(SERB)
 (A statutory body of the Department of Science & Technology, Government of India)

Science and Engineering Research Board
 3rd & 4th Floor, Block B
 Technology Bhavan, New Mehrauli Road
 New Delhi - 110016

Dated: 17 January, 2022

ORDER

Financial Sanction of the research project titled "Molecular Insights to Understand the Mechanisms of Resistance to Fall Army Worm (*Spodoptera frugiperda* J.E. Smith) and Spotted Stem Borer (*Chilo partellus* Swinhoe) in Tropical Field Corn (*Zea mays* L.)" under the guidance of Dr. Mukri, Genetics, Indian Agricultural Research Institute, Pusa, New Delhi, New Delhi, Delhi-110012 and by Dr. Dhandapani Raju, Scientist (Genetics), Division of Plant Physiology, Indian Agricultural Research Institute Pusa and by Dr. Mukesh Kumar Dhillon, Principal Scientist, Division of Plant Physiology, Indian Agricultural Research Institute Pusa and by Dr. Jayant Subraya Bhat, Principal Scientist (Plant Breeding), IARI Regional Research Centre, IARI Regional Research Centre/station (Genetics, IARI), Indian Agricultural Research Institute Pusa - Release of 1st grant.

Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned project at a total cost of Rs. 5773760/- (Rs. Fifty Seven Three Thousand Seven Hundred and Sixty Only) with break-up of Rs. 0/- under Capital (Non-recurring) head and Rs. 5773760/- under Recurring head for a duration of 36 months. The items of expenditure for which the total allocation of Rs. 5773760/- has been approved below:
 The budget may be considered for Indian Agricultural Research Institute Pusa, Pusa, New Delhi

Head	Total (in Rs.)
Non-recurring	
Equipment	0
Total (Non-Recurring)	0
Recurring Items	
Recurring - I : (Manpower)	2336160
Recurring - II : (Consumables, Travel, Contingencies)	3000000
Recurring - III : Scientific Social Responsibility	10000
Recurring - IV : (Overhead Charges)	427600
Total (Recurring)	5773760
Total cost of the project (A + B)	5773760

A sum of Rs. 1931500/- (Rupees Nineteen Lakh Thirty One Thousand Five Hundred only) under 'Head A - General' to DIRECTOR, Indian Agricultural Research Institute Pusa, Pusa, New Delhi being the first installment of the grant for the year 2022 for implementation of the said research project.

The expenditure involved is debit to Fund for Science & Engineering Research (FSER) and is being made under Core Research Grant. (Organismal and Evolutionary Biology(Animal Sciences))

Sanction has been issued to Indian Agricultural Research Institute Pusa, Pusa, New Delhi with the approval of the competent authority under powers on 12 January, 2022 and vide Diary No. SERB/F/7460/2021-2022 dated 17 January, 2022

The release of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).

Some expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. The benefits to the staff employed in the project.

Providing operational flexibility among various subheads under head Recurring-II, it should be ensured that not more than Rs. 1.5 lakh each is permitted for travel and contingency.

Expenditure sanctioned under Scientific Social Responsibility (SSR) is meant only for activities enlisted under SSR norms and under no circumstances it should be appropriated.

As per Rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

Sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.

The first instalment of Rs. 1931500/- (Rupees Nineteen Lakh Thirty One Thousand Five Hundred only) will be drawn by the Under Secretary of the Institute and will be disbursed by means of RTGS transaction as per their Bank details given below:

Account Code	IARI
Account Name	Indian Agricultural Research Institute, Pusa Campus, New Delhi
Account Number	90293050000040
Bank & Branch	Canara Bank, Pusa Campus Canara Bank Pusa Campus New Delhi 110012 IARI Pusa Branch
Account Code	CNRB0019029
A/C Holder	director@iari.res.in
PI	ganapati4121@gmail.com

Gmail

Ganapati Mukri <ganapati4121@gmail.com>

3-Notification

Page

Administrator@serbonline.in <SERB_Administrator@serbonline.in>
info1@gmail.com

Mon, Jan 31, 2022 at 3:15 PM



Science and Engineering Research Board
(Statutory Body Established Through an Act of Parliament : SERB Act 2008)
Department of Science and Technology, Government of India

SCIENCE & ENGINEERING RESEARCH BOARD (SERB)

(Statutory Body Established Through an Act of Parliament : SERB Act 2008)

Science and Engineering Research Board
3rd & 4th Floor, Block II
Technology Bhavan, New Mehrauli Road
New Delhi - 110016

File Number: CRG/2021/003808

Dated: 31-Jan-2022

Subject: Start date for the project titled "Molecular Insights to Understand the Mechanisms of Resistance to Fall Army Worm (*Spodoptera frugiperda* J.E. Smith) and Spotted Stem Borer (*Chilo partellus* Swinhoe) in Tropical Field Corn (*Zea mays* L.)".

Dear Dr. Ganapati Mukri,

The start date of your file number CRG/2021/003808 is 25 January, 2022

You are now requested to upload the Statement of Expenditure and Utilization Certificate after each financial year so as to enable us release next installments.

To upload SE/UC, Kindly go to Submitted Proposals --> View --> Select the File Number --> Upload SE/UC --> Upload New SE

Yours sincerely

(Dr. Under Secretary)

DDC

Email: finance@serb.gov.in

Ganapati Mukri

Genetics

All India Agricultural Research Institute, Pusa, New Delhi, New Delhi, Delhi-110012

No. BT/PR40767/AGIII/103/1277/2020
 GOVERNMENT OF INDIA
 MINISTRY OF SCIENCE & TECHNOLOGY
 DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors
 CGO Complex, Lodhi Road,
 New Delhi- 110 003
 Dated: 25.02.2022

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "Gene Silencing Approaches for Managing Thrips-Tospovirus Threats to Horticultural Crops" for a period of 3 Year 0 Month at a total cost of Rs. 7796856 (Rupees Seventy Seven Lakhs Ninety Six Thousand Eight Hundred and Fifty Six Only) on the terms and conditions detailed here under:-

The Project :

2.1 Title : Gene Silencing Approaches for Managing Thrips-Tospovirus Threats to Horticultural Crops

2.2 Details of the Investigator: Dr. Amalendu Ghosh, Indian Agricultural Research Institute, New Delhi

Co-PI: Prof. Virendra Kumar Baranwal, Indian Agricultural Research Institute, New Delhi

Objectives:

- 2.3 • Identification of *T. palmi* genes responsive to tospovirus transmission
 • Evaluation of gymnotic delivery system for RNAi constructs
 • Designing and evaluation of RNAi constructs targeting key genes critical for tospovirus transmission, development, and reproduction of *T. palmi*

2.4 Time Schedule:

The duration of the project is 3 Year 0 Month from the date of this sanction order. Objective wise Activities, Timelines and Deliverables:

Activities	Start month	End month	Deliverables
Objective 1: Identification of <i>T. palmi</i> genes responsive to tospovirus transmission			
Recruiting staff and students, procurement of consumables & instruments, etc.	1	3	Conserved transcripts of <i>T. palmi</i> responsive to tospovirus transmission
Purity confirmation and maintenance of iso-female line of <i>T. palmi</i> and GBNV and WBNV cultures	1	3	
Preparation of biological samples for total RNA extraction	3	5	
Generation of transcriptome data of <i>T. palmi</i>	6	10	
Analysis of the transcriptome data, and identification of differentially expressed transcripts, and annotation	9	12	
Validation of differential gene expression by qRT-PCR	12	18	
Objective 2: Designing and evaluation of RNAi constructs targeting key genes critical for tospovirus transmission, development, and reproduction of <i>T. palmi</i>			
Designing and synthesis of RNAi constructs	15	18	RNAi constructs to knockdown genes of <i>T. palmi</i> responsive to virus transmission, development and reproduction
Evaluation of the efficiency of RNAi constructs	18	28	
Evaluation of gene expression post RNAi treatment	22	28	
Objective 3: Evaluation of gymnotic delivery system for RNAi constructs			
Designing and synthesis of FANAASOs	28	30	A gymnotic system to deliver the effective gene silencer constructs in the host system Novel management option to restrict the transmission of tospovirus by <i>T. palmi</i> and reducing crop damages caused by direct feeding of <i>T. palmi</i> .
Standardization of FANAASO treatment	31	33	
Assessing the effect of FANAASO on virus transmission, development, and reproduction of <i>T. palmi</i>	32	36	
Data analysis, compilation, report writing, publication	35	36	

Dr. Sanjay Kalia
 Scientist E
 Department of Biotechnology
 Ministry of Science & Technology

Six Thousand Eight Hundred and Fifty
Total(Rs.)
00

- C. The Expenditure is to be made as per the EAT module of the Government of India.
 - D. Any further grant release in the project would also be subject to Utilization Certificate updates in PFMS.
 - E. Quarterly deliverables in the project, in quantifiable terms have to be provided for each quarter of the project, based on which, inter-alia, monitoring/review of the project will be done and proposal for release of subsequent installment will be considered.
- A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA between the grantee institutions and DBT. In case of NGO's and Private Institution's, execution of MOA is mandatory before first release. A format of the MoA is enclosed in Annexure-IV

The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilisation Certificate and Statement of Expenditure. The interest earned should be remitted to the Consolidated fund of India through Bharat Kosh portal(www.bharatkosh.gov.in) as per GFR-2017-230(8) after finalization of the account for a given Financial Year. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.

The Director, Indian Agricultural Research Institute, New Delhi, Delhi (UT) would be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.

PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. A.SR/S9/Z-05/2019 dated 30 Jan 2019. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET.


As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG (DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organizations is called upon to do so.

If the Research Project involves biological resources, the obligations under the Biological Diversity Act 2002 as applicable shall be complied with by the Project Investigator, the details of such obligations can be accessed at www.nbaindia.org

- (I) "The PIs/Implementing Agencies shall strictly adhere to the GoI instructions issued vide OM No.F.4.1.2021-PPD dated 30.6.2021 in the matter of issue of Global tender Enquiry with special reference to instructions contained under para 4 of the said OM for procurement of equipments, spares and consumables for research purposes and shall not issue Global Tenders Enquiries before seeking the approval of the competent authority".
- (II) "After incurring the expenditure on import of such items and at the time of submission of UCs to the department next year, the PIs will also furnish the copy of the approval sought from the competent authority for issue of the GTE for such items of import. The release of next installment of grant will be subject to the fulfillment of the above condition."

This issues, under the power delegated to this Department and with the concurrence of IFD vide their SAN No. 102/IFD/SAN/2932/2021-22 dated 25.02.2022.

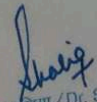
This sanction order has been noted at serial no. 147 in the Register of Grants.


(Dr. Sanjay Kalia)
Scientist 'E'

डॉ. संजय कालिया / Dr. Sanjay Kalia
वैज्ञानिक 'E' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / Min. Science & Tech
नई दिल्ली / Govt. of India, N. D.

To,
The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

- Copy to:
- 1 The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
 - 2 The Director, Indian Agricultural Research Institute, Pusa, New Delhi - 110012, Delhi (UT)
 - 3 Dr. Amalendu Ghosh, Indian Agricultural Research Institute, New Delhi - 110012, Delhi (UT)
 - 4 Prof. Virendra Kumar Baranwal, Indian Agricultural Research Institute, New Delhi 110 012, New Delhi - 110012, Delhi (UT)
 - 5 Cash Section, DBT (2 copies).
 - 6 Sanction Folder.
 - 7 File Copy.


(Dr. Sanjay Kalia)
Scientist 'E'

डॉ. संजय कालिया / Dr. Sanjay Kalia
वैज्ञानिक 'E' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / Min. Science & Tech
नई दिल्ली / Govt. of India, N. D.

Page No. 12 / 11

5. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organisations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organisation is called upon to do so.
6. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
7. The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilisation Certificate and Statement of Expenditure. The interest earned should be remitted to the Consolidated fund of India through Bharat Kosh portal(www.bharatkosh.gov.in) as per GFR-2017-230(8) after finalization of the account for a given Financial Year.
8. A. Any further grant release in the project would also be subject to Utilization Certificate updates in PFMS.
B. The Expenditure is to be made as per the EAT module of the Government of India.
C. Quarterly deliverables in the project, in quantifiable terms have to be provided for each quarter of the project, based on which, inter-alia, monitoring/review of the project will be done and proposal for release of subsequent installment will be considered. The other terms and conditions governing the financial sanction will remain unaltered.
9. This issues under the powers delegated to this Department and with the concurrence of IFD, DBT, vide their SAN No. 102/IFD/SAN/2933/2021-22 dated 25.02.2022.
10. This sanction order has been noted at serial no. 149 in the Register of Grants.

(Dr. Sanjay Kalia)
Scientist 'E'

To,

The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

डॉ. संजय कालिया / Dr. Sanjay Kalia
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
- 2 The Director, Indian Agricultural Research Institute, New Delhi - 110012, Delhi (UT)
- 3 Dr. Amalendu Ghosh, Indian Agricultural Research Institute, New Delhi - 110012, Delhi (UT)
- 4 Prof. Virendra Kumar Baranwal, Indian Agricultural Research Institute, New Delhi - 110012, Delhi (UT)
- 5 Cash Section, DBT (2 copies).
- 6 Sanction Folder.
- 7 File Copy.

(Dr. Sanjay Kalia)
Scientist 'E'

डॉ. संजय कालिया / Dr. Sanjay Kalia
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

By Speed/Registered Post

Sanction No. 41(i)

File No. S-20021/1/2021-TECH

Government of India

Ministry of Steel

(Technical Division)

www

Udyog Bhawan, New Delhi-110107

Dated: 22.06.2021

To

The Pay and Accounts Officer,
Ministry of Steel,
Udyog Bhawan,
New Delhi - 110107

Sub: Grant-in-aid to Indian Agriculture Research Institute (IARI), New Delhi, for the R&D project on Development of Steel Slag based cost effective eco-friendly fertilizers for sustainable agriculture and inclusive growth.

Sir,

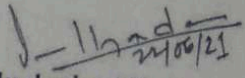
I am directed to refer to the approval of the competent authority and to convey the sanction of the President of India for Grant-in-aid of Rs 67.22196 lakh (Rupees Sixty Seven Lakh Twenty Two Thousand One Hundred Ninety Six only) as the 1st instalment to implement the aforementioned R&D project.

2. The funds in para 1 above being authorized for release is against budget provision in BE 2021-22.
3. The grant is subject to terms and conditions mentioned in the *Annexure-I* of this sanction letter.
4. The expenditure of Rs. 67.22196 lakh (Rupees Sixty Seven Lakh Twenty Two Thousand One Hundred Ninety Six only) will be debited to Budget Head 2852 Industries (Major Head), 80-General (Sub-Major Head), 80.800 - Other Expenditure (Minor Head), 23.00.31 Scheme for Promotion of Research & Development in Iron & Steel Sector -Grants-in-aid-General, (Revenue) under Grant No. 96 of Ministry of Steel for 2021-22.
5. Shri. K C Jatav, Section Officer in this Ministry will be Drawing & Disbursing Officer in respect of this sanction.
6. The amount of Rs 67.22196 lakh (Rupees Sixty Seven Lakh Twenty Two Thousand One Hundred Ninety Six only) may be paid to the Indian Agriculture Research Institute (IARI), New Delhi through RTGS to the A/c No. 902930500000040

of Canara Bank, Pusa Campus Branch, New Delhi, vide IFS Code No. CNRB0019029.

7. The grant of Rs. 67.22196 lakh (Rupees Sixty Seven Lakh Twenty Two Thousand One Hundred Ninety Six only) to be released to Indian Agriculture Research Institute (IARI), New Delhi is "non-recurring Grant", which may be utilised in revenue head by the agency pursuing the R&D project.

8. This sanction issues with the concurrence of the integrated Finance Division Vide Dy. No. R-4/IFD/2021 dated 9th June 2021.


(Indrajeet Yadav)
Dy. Industrial Adviser
Tel.No. 23061352

Encl: as above.

Copy to:-

1. Director, Indian Agriculture Research Institute (IARI), New Delhi
2. Chief Controller of Accounts, Ministry of Steel, New Delhi.
3. Director of Audit, Commerce, Works & Misc. I.P. Estate New Delhi.
4. Office of Principal Director of Audit, Economic Service Ministries, AGCR Building, I.P. Estate, New Delhi.
5. Cash Section, Ministry of Steel (2 copies).
6. Budget Section (2 copies).
7. Finance Section.
8. Sanction folder/ Guard file

प्रेषक,

बृजराज सिंह यादव,
विशेष सचिव
उत्तर प्रदेश शासन।

सेवा में,

कृषि निदेशक,
उत्तर प्रदेश लखनऊ।

कृषि अनुभाग-3

विषय-

लखनऊ: दिनांक: 17 मार्च, 2020

उ0प्र0 में कृषि सुदृढीकरण हेतु "intervention of improved Agricultural Technologies for Transforming Agriculture in Uttar Pradesh for enhancing Farmer's income" की कार्ययोजना के सम्बन्ध में।

महोदय,

उपर्युक्त विषयक आपके पत्र संख्या-प्रसार/3577/प्राइमरी सेक्टर/2019-20, दिनांक 12.03.2020 के संदर्भ में मुझे यह कहने का निदेश हुआ है कि शासन द्वारा सम्यक विचारोपरान्त उ0प्र0 में कृषि सुदृढीकरण हेतु "intervention of improved Agricultural Technologies for Transforming Agriculture in Uttar Pradesh for enhancing Farmer's income" की कार्ययोजना पर प्रशासनिक स्वीकृति निम्नवत् प्रदान की जाती है:-

1. योजना का नाम:

किसानों की आय बढ़ाने के लिए उत्तर प्रदेश में कृषि के लिए बेहतर कृषि तकनीकों का हस्तक्षेप

Intervention of Improved Agricultural Technologies for Transforming Agriculture for enhancing farmer's income in Uttar Pradesh

उद्देश्य:

- चयनित कलस्टर में कृषकों की सामाजिक एवं कृषि सम्बन्धी स्थिति तथा आवश्यकताओं का चिन्होंकन।
- आजीविका सुरक्षा तथा जल संरक्षण हेतु उपस्थित कृषि प्रणाली का फसल विविधता के आधार पर सुदृढीकरण।
- कृषकों एवं महिला कृषकों का कृषि आधारित विभिन्न क्रियाकलापों के सम्बन्ध में क्षमता विकास।
- बीज ग्राम परिकल्पना के आधार पर गुणवत्तायुक्त एवं पौध सामग्री के उत्पादन एवं भण्डारण का प्रोत्साहन।
- कृषि को लाभकारी बनाये जाने के क्रम में कृषकों की आमदनी में अभिवृद्धि।


वित्तीय लक्ष्य

क्र. सं.	संस्था का नाम	जिला	प्रथम वर्ष के लिए आवश्यक बजट	परियोजना के लिए कुल बजट
1.	शुआट्स कृषि विश्वविद्यालय, प्रयागराज	प्रयागराज	43.58	155.19
2.	अन्तर्राष्ट्रीय चावल अनुसंधान संस्थान, क्षेत्रीय कार्यालय, वाराणसी	सिद्धार्थनगर	43.58	160.13
3.	भारतीय गन्ना अनुसंधान संस्थान, लखनऊ	लखीमपुर	48.83	160.13
4.	केन्द्रीय मृदा लवणता अनुसंधान संस्थान, क्षेत्रीय केन्द्र, लखनऊ	हरदोई	45.68	160.21
5.	आचार्य नरेन्द देव कृषि एवं प्रौद्योगिक विश्वविद्यालय, अयोध्या	अयोध्या	45.68	160.65
6.		बहराईच	43.58	160.65
7.		देवरिया	43.58	159.60
8.		गोरखपुर	46.20	160.65
9.		मऊ	42.53	158.03
10.	कृषि विज्ञान संस्थान, काशी हिन्दू विश्वविद्यालय, वाराणसी	चन्दौली	45.68	158.55
11.	भारतीय चारागाह एवं चारा अनुसंधान संस्थान, झाँसी	झाँसी	46.20	159.08
12.	चन्द्रशेखर आजाद कृषि एवं प्रौद्योगिक विश्वविद्यालय, कानपुर	एटा	43.58	156.45
13.	भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली	कानपुर देहात	43.58	159.60
14.	भारतीय सब्जी अनुसंधान संस्थान, वाराणसी	बुलन्दशहर	43.58	160.65
15.	भारतीय दलहन अनुसंधान संस्थान, कानपुर	मिर्जापुर	43.58	159.60
16.		फतेहपुर	43.58	159.60
17.		सौनभद्र	44.10	159.08
18.	उ.प्र. गन्ना अनुसंधान परिषद, शाहजहाँपुर	शाहजहाँपुर	45.68	158.63
19.	पं. दीनदयाल उपाध्याय पशु विज्ञान विश्वविद्यालय एवं गो अनुसंधान संस्थान, मथुरा	मथुरा	42.530	159.08
20.	सरदार वल्लभभाई पटेल कृषि एवं प्रौद्योगिक विश्वविद्यालय, मेरठ	सहारनपुर	47.99	160.13
21.	केन्द्रीय पक्षी अनुसंधान संस्थान, बरेली	बरेली	43.580	156.53
22.	केन्द्रीय उपोष्ण बागवानी अनुसंधान संस्थान, लखनऊ	लखनऊ	44.10	158.63
23.	अन्तर्राष्ट्रीय गोहूँ एवं मक्का अनुसंधान संस्थान-बोरलाग दक्षिण एशिया संस्थान, नई दिल्ली	अमरोहा	45.68	160.00
24.	उ.प्र. कृषि अनुसंधान परिषद, लखनऊ		25.00	165.00
25.	अन्तर्राष्ट्रीय खाद्य नीति अनुसंधान संस्थान, नई दिल्ली		20.00	115.50
26.	अत्याधुनिक रेफरल प्रयोगशाला की स्थापना (आचार्य नरेन्द देव कृषि एवं प्रौद्योगिक विश्वविद्यालय,			600.00

अयोध्या विश्वविद्यालय
कुल धनराशि
उपकार हेतु
कुल योग

कृपया उपर्युक्तानुसार योजना का कियान्वयन सुनिश्चित कराने का कष्ट करें।


भवदीय,


(बृजराज सिंह यादव)
विशेष सचिव।

सं०-335(1) / 12-3-2020-तददिनांक

प्रतिलिपि महानिदेशक, उ०प्र० कृषि अनुसंधान परिषद, (उपकार), गोमतीनगर, लखनऊ
को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

आज्ञा से,


(डा० राम चन्द्र शुक्ल)
अनु सचिव।



Dr. KONGA GOPIKRISHNA
Scientist – 'F'
SEED Division
E- Mail: k.gopikrishna@nic.in
Tele: 011 - 26590298

भारत सरकार
विज्ञान और प्रौद्योगिकी मंत्रालय
विज्ञान और प्रौद्योगिकी विभाग
टेक्नोलॉजी भवन, नया मेहरोली मार्ग
नयी दिल्ली-११० ०१६

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
TECHNOLOGY BHAVAN, NEW MEHRAULI ROAD
NEW DELHI – 110 016

DST/SEED/TSP/STI/2019/150

15.02.2022

BY E-MAIL

Sub: Financial Assistance for the project titled "Characterization and popularization of Spirulina biomass cultivation as viable product and commercial exploitation of Spirulina biomass towards product development." under the guidance of Dr. Tarun Kanti Bandyopadhyay, Head, Department of Bioengineering, National Institute of Technology Agartala, Tripura collaboration with ICAR-IARI, New Delhi.

Dear Sir

This is to inform that the above mentioned project proposal has been approved at a total cost of Rs.2,31,54,847/- for a period of three years as per the following budget break up.

Amount/ Institute	Sanctioned Cost (in Rs)			initial first release (in Rs)		
	General	Capital	Total	General	Capital	Total
NIT, Agartala	72,34,664	83,46,532	1,55,81,196	24,46,872	83,46,532	1,07,93,404
ICAR-IARI, New Delhi	43,99,696	31,73,955	75,73,651	16,46,408	31,73,955	48,20,363

The release of grant is subject to the following conditions.

- Letter of consent to take up the project at the above cost.
- An undertaking from the Organization/Institute/Principal Investigator that it has not obtained financial assistance from any other department of the Central/State Governments for this project or a similar project and the Institute is not blacklisted
- Procurement of equipment as per General Financial Rules 2017.
- The institute will maintain separate audited account for the project and the entire amount of grant will be kept in an interest bearing bank account. For Grants released during F.Y. 2017-18 and onwards, all interests and other earnings, against released Grant shall be remitted to Consolidated Fund of India (through Non-Tax Receipt Portal (NTRP), i.e., www.bharatkosh.gov.in), immediately after finalization of accounts, as it shall not be adjusted towards future release of grant. A certificate to this effect shall have to be submitted along with Statement of Expenditure/Utilization Certificate for considering subsequent release of grant/closure of project accounts
- The permanent assets/equipment procured if any, in the project should be used by the intended beneficiaries even after completion of project tenure. Retention of equipment if any

for further research may be requested and such retention is subject to approval of competent authority.

f. A declaration that the project implementing agency shall employ the EAT sub module
g. The equipment will be procured through GEMS wherever applicable

2. As per the Ministry of Finance, Department of Expenditure OM No. 7 (1) E.Coord/2012 dated 14th November 2012 (enclosed), the release of the grant will be subject to declaration by the Organization/ Principal Investigator (s) that

(i) All Utilization Certificates due for rendition, for grant in aid released by the Central Government in respect of all the schemes/programmes/projects of a Ministry/Department of Government of India have been submitted for all the projects implemented (completed) by the Organization/ Principal Investigator (s) and Up to date Utilization Certificates have been submitted for grant in aid released by the Central Government in respect of all the schemes/programmes/projects of a Ministry/Department of Government of India in case of ongoing projects

3. Further, in order to release the grant, you have to register your agency under "Public Financial Management System (PFMS)". The bank details should be added to the scheme "Innovation Technology Development and Deployment" (1819).

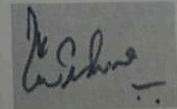
4. The release of the grant would be through electronic transfer of funds (RTGS). You are requested to provide the following details for facilitating e-payments.

- a. Account Holders /Organization name (or) designation
- b. Name of the bank
- c. Bank Account Number
- d. IFSC Code
- e. MICR Code

It would be appreciated if you can send us a photocopy of a cancelled cheque, which has all the requisite details. The bank details in the photocopy of the cancelled cheque should match with the details given during CPSMS registration.

Enclosures: As above

Yours sincerely



(Konga Gopikrishna)

To

Dr. Tarun Kanti Bandyopadhyay, Head
Department of Bioengineering
National Institute of Technology Agartala,
Barjala, Jirania, Tripura - 799046, West Bengal

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "A National Mission Mode Program on Nutritional improvement of digestible protein content and quality in rice" for a period of 05 Years at a total cost of Rs.1691.018 lakhs (Rupees sixteen crore ninety one lakh one thousand eight hundred only) as per details below:

2. Details of the project:

2.1 Title: A National Mission Mode Program on Nutritional improvement of digestible protein content and quality in rice.

2.2 Project Coordinator: Dr. Subhra Chakraborty, National Institute of Plant Genome Research, New Delhi

2.3 Principal Investigators and Coordinators of the Sub-projects:

I. Component-1: NIPGR, New Delhi

- PI - Dr. Subhra Chakraborty
- Co-PI - Dr. Jagadish Gupta Kapagnath & Dr. Swarup K. Parida

II. Component-2: IARI, New Delhi

- PI - Dr. Haritha Bollinaedi
- Co-PI - Dr. Ashok Kumar Singh

III. Component-3: NBPGR, New Delhi

- PI - Dr. Vimala Devi S
- Co-PI - Dr. Rakesh Nardwaj, Dr. Rakesh Singh & Dr. M. P. Rajanna

IV. Component-4: NRRI, Cuttack

- PI - Dr. Krishnaendu Chattopadhyay
- Co-PI - Dr. Satapsa Sarker & Dr. Toril Baran Bagchi

V. Component-5: NIN, Hyderabad

- PI - Dr. S. Ananthan
- Co-PI - Dr. Paras Sharma

VI. Component-6: SJRI, Bengaluru

- PI - Dr. Anura V Karpud

2.4 Overall Objectives of the Network project:

- > To understand natural variation for GPC and yield by phenotyping alongwith genotyping in rice.
- > Metabolomic, analyses, biochemical nutrient and inhibitory compound profiling, and deciphering the metabolic pathways involved in key nutritional quality traits and evaluation of nitrogen and amino acid metabolism enzyme activities in rice.
- > Identification and validation of marker trait association (MTA) for GPC, storage proteins, amino acid, digestibility inhibitory compounds and associated key metabolites through GWAS and QTL mapping.
- > Identification and development of high yielding, digestible and bio available high protein and amino acid rice prebreeding lines.

3. Objective wise Activities & Timelines:

Objective 1: To understand natural variation for GPC and yield by phenotyping in the field alongwith genotyping in rice

S. No.	Activities	Start month	End month	Deliverables
1.	Estimation of grain nitrogen content by Kjeldahl analyses in 200-300 lines and development of NIR equation.	0	6	Grain nitrogen content by Kjeldahl analysis in 200-300 lines will be estimated and based on which NIR equation will be developed.

Dr. A. Vamsi Krishna
 Director, Dept. of Biotechnology
 Ministry of Science & Tech.
 Government of India, New Delhi

14. "After incurring the expenditure on import of such items and at the time of submission of LICs to the department next year, the PIAs will also furnish the copy of the approval sought from the competent authority for issue of the OTE for such items of import. The release of next instalment of grant will be subject to the fulfillment of the above condition."
15. Annual reports and Audited Accounts of the Institute should be laid on the Table of the House within six months of the close of the succeeding financial year of the grantee organization in accordance with Rule 238(6) of the CFR 2017.
16. The retention of the equipment purchased out of the project grant after completion of the project in respect to Private Institutions will be as per the instructions/modalities/terms & conditions issued by the Department of Bio-technology keeping in mind overall public interest in accordance to instructions issued by Ministry of Finance vide OM dated 30.09.2021.
17. The financial support after completion of three years of the project will be recommended by the DBT Apex Committee identified. The following suggestions made by the DBT Apex Committee should be adhered to for effective implementation and accomplishment of the envisaged objectives of the project:
- (i) A good monitoring structure need to be in place for regular monitoring of proposed studies.
 - (ii) There should be analysis of anti-nutrients even in population which NBPGR will be analyzing. Investigators should also narrow down to a mini core of approximately 150 accessions and their protein profiles are to be analyzed.
 - (iii) Investigators should use International/National standards for protein content and anti-nutrient factors.
 - (iv) Investigator should advised to include National Checks for the trait under study.
 - (v) The strategy to develop improved lines may be finalized once detailed information (pertained on variability and trait associated QTLs/trn/QTLs).
 - (vi) The investigator should provide a clear cut quarterly milestone and deliverables (Institute wise) for the first three years as well as the next two years of the project."

18. This sanction, under the power delegated to this Department and with the concurrence of IFD vide their SAN No. 181/IFD/SAN/2344/2021-22 dated 18.01.2022.

19. This sanction order has been noted at serial no. _____ in the Register of Grants.

To,
 The Pay & Accounts Officer,
 Ministry of Science & Technology
 Department of Biotechnology
 New Delhi - 110 003.

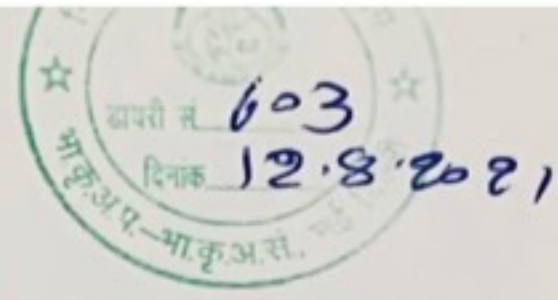
Vamsi
 (Dr. Vamsi Krishna)
 Scientist 'E'
 Section 5 / Section 7
 Additional Secy./Asstt. Secy. of Biotechnology
 Deptt. of Sci. & Tech., M/o Science & Tech.
 Govt. of India, N. Delhi

Copy to:

1. The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 003
2. The Director, NIPGR, New Delhi
3. The Director, NBPGR, New Delhi
4. The Director, IARI, New Delhi
5. The Director, NRRI, Cuttack
6. The Director, NIN, Hyderabad
7. The Director, SJRI, Bengaluru
8. Dr. Subhas Chakraborty, NIPGR, New Delhi
9. Dr. Jagadis Gupta Kapurani, NIPGR, New Delhi
10. Dr. Swarn K. Parida, NIPGR, New Delhi
11. Dr. Haritha Bollinedi, IARI, New Delhi
12. Dr. Ashok Kumar Singh, IARI, New Delhi
13. Dr. Vinada Devi S, NBPGR, New Delhi
14. Dr. Rakshit Bhardwaj, NBPGR, New Delhi
15. Dr. Rajesh Singh, NBPGR, New Delhi
16. Dr. M. P. Rajanna, NBPGR, New Delhi
17. Dr. Krishnendu Chattopadhyay, NRRI, Cuttack
18. Dr. Satya Sekar, NRRI, Cuttack
19. Dr. Tush Baran Bagchi, NRRI, Cuttack
20. Dr. R. Ananthan, NIN, Hyderabad
21. Dr. Parul Sharma, NIN, Hyderabad
22. Dr. Anura V Kurpad, SJRI, Bengaluru
23. Sanction Folder
24. File Copy

Vamsi
 (Dr. Vamsi Krishna)
 Scientist 'E'
 Section 5 / Section 7
 Additional Secy./Asstt. Secy. of Biotechnology
 Deptt. of Sci. & Tech., M/o Science & Tech.
 Govt. of India, N. Delhi

1014
13/08/21



भारतीय कृषि अनुसंधान परिषद

Indian Council of Agricultural Research

कृषि भवन, नई दिल्ली - 110001 Krishi Bhawan, New Delhi - 110 001

F.No. ICT Unit-3(5)/2021-ICT (Computer No. 145776)

Dated the 05th August, 2021

To

The Director,
Indian Agricultural Research Institute
Pusa, New Delh -110012

Subject: Approval of ICAR Network Program on Precision Agriculture (NePPA)- reg

Sir,

It has been decided with the approval of Secretary, DARE & Director General ICAR to implement the proposed "ICAR Network Program on Precision Agriculture (NePPA)" at ICAR-Indian Agricultural Research Institute (IARI), New Delhi in collaboration with different ICAR institutes. This Network program shall be Coordinated by Information & Communication Technology (ICT) Unit of the Council. This Network program of national importance is to be implemented by following mechanism:

1. Sub-projects will be formulated under this Network program by different collaborating institutes following Research Project File (RPF) of ICAR with the approval of Director of the respective institute.
2. The above sub-projects will be submitted to respective SMD for suggestions / comments.
3. The sub-projects will be finally approved by the Steering Committee of the project.
4. Progress of each sub-project will be monitored at the institute level through Institute Research Committee (IRC) of the respective institute. The comments of IRC, if any, is to be discussed in the Steering Committee before its implementation.
5. Delegation of power of the Project Investigator (PI) / Co-Project Investigator (CPI) will be equivalent to the PI / CPI of the project funded by NASF for its smooth implementation.
6. The Steering Committee of this Project will be the final body for all technical and financial approval of sub-projects under this Network Project including mid-term corrections, if needed.
7. The required budget for development of this program will be released to ICAR-IARI, New Delhi by ICT Unit of ICAR Hqrs as per requirement and availability of funds.

Constitution of Steering Committee:

❖ DDG (NRM), ICAR Hqrs.	Chairman
❖ DDG of each SMD of the Council or his / her nominee	Member
❖ Director, ICAR-IARI, New Delhi	Member
❖ ADG (ICT), ICAR, ICAR Hqrs.	Member
❖ Project Investigator	Member-Secretary

Contd..2

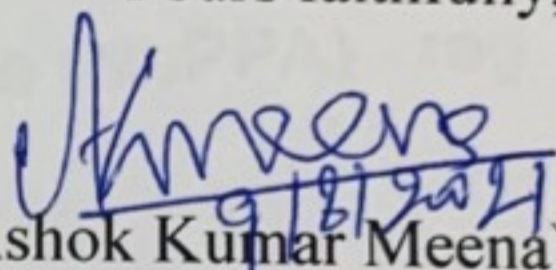
[Handwritten Signature]

The Terms of Reference of this Committee are:

- i. To approve different sub-projects submitted by participating institutes under this Network Project.
- ii. To allocate funds to different sub-projects as per the progress of a sub-project, requirement of a sub-project and availability of funds and from time to time.
- iii. To monitor the progress of different sub-projects six monthly and suggest mid-term corrections (technical / financial), if needed.
- iv. To suggest modalities for roll out the out-put / outcome of this project to different stakeholder.
- v. To suggest/ consider any other points which is needed for smooth implementation of this network program.

You are therefore, requested to take further necessary action as per the Budget provision for this program already communicated *vide* Council's letter Computer No.130290 dated 11.6.2021.

Yours faithfully,


(Ashok Kumar Meena)
Under Secretary (ICT)

Copy to:

1. All Deputy Director General, ICAR Hqrs, New Delhi.
2. ADG(ICT), ICAR Hqrs
3. Dr. Rabi Sahoo, Project Investigator, Pusa New Delhi
4. ADG(PIM), ICAR Hqrs, / Director (Fin), ICAR Hqrs, New Delhi-110001.
5. Guard file.
6. eFile No. 130290.



भारतीय कृषि अनुसंधान परिषद्
कृषि अनुसंधान भवन-II, पूसा, नई दिल्ली 110 012
INDIAN COUNCIL OF AGRICULTURAL RESEARCH
KRISHI ANUSANDHAN BHAVAN-II, PUSA, NEW DELHI 110 012

डा. नरेन्द्र सिंह राठौड़
उप महानिदेशक (कृषि शिक्षा)

Dr. Narendra Singh Rathore
Deputy Director General (Agril. Edn.)

Phone : 011-25841760 (0)
Fax : 011-25843932
E-mail : ddgedn@gmail.com
nsrdsr@gmail.com
Website: www.icar.org.in

F. No./NAHEP/CAAST/2018-19/07

Dated: 13/06/2018

To

Dr. Viswanathan Chinnuswamy
Head, Plant Physiology &
Principal Investigator, NAHEP Sub-project (CAAST)
Indian Agricultural Research Institute
New Delhi-110 012, India

Subject: Revised Sanction letter for the CAAST sub-project entitled "Genomics Assisted Crop Improvement and Management" under NAHEP.

Dear Dr. Chinnuswamy,


This is in continuation and in revision (w.r.t the head-wise and year-wise allocation) of the earlier sanction letter even no. dated 20.03.2018 with the same outlay and the financial concurrence for incurring expenditure under the sanctioned budget of the sub-project being conveyed only up to the period of 31st March, 2020. The total cost of this project will be Rs. 1999.68 lakh (Rupees one thousand nine hundred ninety nine lakh and sixty eight thousand only) for a period of three years starting 2018-19 and ending 2020-21.

This revised sanction order supersedes the earlier order with respect to allocations across the year and heads of expenditure. However, all other terms and conditions mentioned in the original sanction order will remain same.

The expenditure may be incurred strictly within the limits specified in the order. Any excess expenditure or disallowed expenditure will be the liability of the PI/ institution.

The details of the revised and approved list of head-wise and year-wise budget is given in the Annexure I-V.

Yours faithfully,


(N.S. Rathore)
National Director

Copy for information and necessary action to:

- (i) Vice-Chancellor, JARI, New Delhi
- (ii) Comptroller, IARI, New Delhi
- (iii) Nodal Officer, CAAST-NAHEP, IARI, New Delhi
- (iv) National Coordinator (CAAST), NAHEP
- (v) Director (F), ICAR
- (vi) F&AO, NAHEP



INDIAN COUNCIL OF AGRICULTURAL RESEARCH
NATIONAL AGRICULTURAL HIGHER EDUCATION PROJECT
Room No. 512, KAB -II, Pusa, New Delhi - 110 012

F.No.NAHEP/CAAST/2017-18

Dated: 20/03/2018

To,
The Vice-chancellor
Indian Agricultural Research Institute,
New Delhi

Subject: Sanction letter for the CAAST sub-project entitled "Genomics Assisted Crop Improvement and Management" under NAHEP.

Sir,

The Project Monitoring Committee (PMC) of the NAHEP, considered the project proposal entitled, "Genomics Assisted Crop Improvement and Management" in its first meeting held on 29th January, 2018 and approved the proposal for implementation under the NAHEP. The total cost of this project will be Rs. 1999.68 Lakh (Rupees one thousand nine hundred ninety nine Lakh and sixty eight thousand only) for a period of four years starting 2017-18 and ending 2020-21. However approval of budget provision for the sub project is communicated only up to the period of 31st March, 2020 as per approval of EFC of the project. Details of the project are as follows:

1. Name of the University: Indian Agricultural Research Institute, New Delhi
2. Name & Designation of the Principal Investigator: Dr. Viswanathan Chinnuswamy
(Head, Plant Physiology)

The head-wise and year-wise budget is given in the Annexure I. Details of contractual services, list of equipment, civil works and training and workshop are given in annexure II-V.

1. The Sanction will be subject to the following conditions:

- (i) The Principal Investigator (PI) will have the overall responsibility of carrying out the work shown in the project as given in Annexure I.
- (ii) The PI will not be removed/ transferred from the project without the prior consent of the PIU of the NAHEP.
- (iii) The decision of the Project Management Committee (PMC) of the NAHEP will be final in all matters of the project.

that it is funded by the ICAR through the NAHEP and the name, symbol and identity of ICAR should have priority over NAHEP and your institution.

3. Monitoring:

- (i) The PI will submit to the PIU an half yearly report and a period ending 30th September and 31st March, respectively by 15th of October and April of every year.
- (ii) The PI and the associated scientist may be called to present their progress before the PMC or in a Workshop organized by the NAHEP whenever required.
- (iii) A final report of the project will be submitted to the NC within 30 days of the closure of the project with all technical and financial details. This deadline will be strictly followed.
- (iv) The National Coordinator or his representative will visit the project institutions as and when required.

4. Intellectual Property Rights:

- (i) The rights on any intellectual property arising out of the project shall be vested in the ICAR, who shall be the absolute and full owner.
- (ii) The sharing of income from Intellectual Property Rights (IPR) from the sub-project would be in accordance with the prevailing guidelines of ICAR

Information relating to the following items should be immediately furnished for electronic transfer of funds to Lead institution and partner institutions.

- (i) Unique PFMS ID for the Project
- (ii) Name of the Bank
- (iii) Bank Branch and Telephone No.
- (iv) IFSC (Indian Financial System Code)
- (v) Account Number of the Partner to whom the fund is to be sent
- (vi) Title of the Account

Yours faithfully,


(N. S. Rathore)

National Director
श्री नरेन्द्र सिंह राठोड़ / Dr. Narendra Singh Rathore
उप महानिदेशक (कृषि शिक्षा)
Deputy Director General (Agri. Edn.)
महात्मा जवाहर लाल नेहरू केंद्र / I.C.A.R.
एन. सी. ई. ए. बिल्डिंग, एन. सी. ई. बिल्डिंग
K. V. V. - II, Fusa, New Delhi-110012

Copy for information and necessary action to:

- (i) PI/Nodal Officer/ of the sub-project.
- (ii) National Coordinator (CAAST), NAHEP .
- (iii) National Coordinator, M&E, NAHEP for information
- (iv) PIU Finance
- (v) Under Secretary, NAHEP



भारतीय कृषि अनुसंधान परिषद

Indian Council of Agricultural Research

राष्ट्रीय कृषि विज्ञान कोष

National Agricultural Science fund (NASF)

भारतीय कृषि अनुसंधान भवन-1, पूसा परिसर, नई दिल्ली-110012

Krishi Anusandhan Bhavan-I, Pusa Campus New Delhi-110012

F. No. NASF/GTR-8030/2020-21

Dated: 31.05.2021

To,

The Vice Chancellor,
Tamil Nadu Agricultural University,
Coimbatore-641 003

Subject: Sanction letter for the Research project entitled, “**Harnessing haplotype diversity of genes controlling yield, stress tolerance and resource use efficiency traits in rice for accelerating genetic gains**” under the National Agricultural Science Fund (NASF)

Sir,

The Empowered Committee (EC) of the NASF considered the proposal on “**Harnessing haplotype diversity of genes controlling yield, stress tolerance and resource use efficiency traits in rice for accelerating genetic gains**” in its 42nd meeting held on 4th March, 2021 and approved for implementation under the NASF. The total cost of this project is ₹ **220.59098** lakhs (Rupees two crore twenty lakhs fifty nine thousand and ninety eight only) for a period of 3 years (June, 2021 to May, 2024). In principle financial sanction of the competent authority for the project is now being accorded for the period from June, 2021 to May, 2024. The formal sanction will be conveyed later. **The release of fund will be through PFMS/FMS-MIS and the funded centre need to comply accordingly.**

1. Name of the Lead Centre

Tamil Nadu Agricultural University, Coimbatore - 641 003

2. Name & Designation of the Principal Investigator

Dr. M. Raveendran, Principal Professor, Biotechnology, TNAU, Coimbatore - 641003

3. Names of Cooperating Centre

- i. ICAR-Indian Agricultural Research Institute, Pusa Campus, New Delhi-110012
- ii. ICAR - Indian Institute of Rice Research, Hyderabad - 500 030
- iii. University of Agricultural Sciences, Bangalore - 560 065

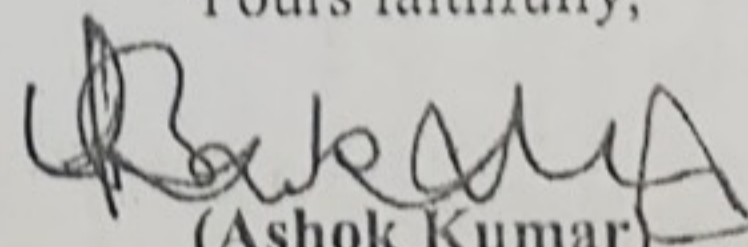
4. Name & Designation of the Cooperating Centre Principal Investigator

- i. Dr. Ranjith Kumar Ellur, Scientist, Division of Genetics, ICAR-IARI, New Delhi-110012
- ii. Dr. M. Sheshu Madhav, Principal Scientist, PBG, ICAR - Indian Institute of Rice Research, Hyderabad - 500030
- iii. Dr. M.S. Sheshshayee, Professor, Physiology, UAS, Bangalore - 560 065

- (iii) The intellectual properties may be licensed against a fee (premium) which may be in a lump sum or with royalty for a fixed/defined period of time.
- (iv) The intellectual properties to be licensed on exclusive basis or non-exclusive basis will be decided by the ICAR depending upon the welfare/gains considerations or public consideration or public welfare embedded in the intellectual properties.
- (v) Whereas a minimum price for the intellectual properties is to be evaluated, it may not be rigidly adhered to; and the offers made by different parties shall be given due consideration in consultation with the Empowered Committee on the basis of recommendations of ICAR. The spirit behind this should be to commercialize the intellectual properties in the best interest of the investment.
- (vi) If one or more of the partners (i.e., the Lead or Cooperating Centre) of the Project is (are) interested to commercialize the intellectual properties, it may be given preference over other parties at mutually agreed terms and conditions between the interested partner and the ICAR.
- (vii) The ICAR will hold the right to use the intellectual property for non-commercial purposes in public interest.
- (viii) The services of the inventor(s) rendered subsequent to the transfer of intellectual property may entail earning of charges/fees etc., distribution of which will be as per the clause stated in para 4(ii) above.
- (ix) It will not be incumbent upon the ICAR to protect every Intellectual Property (IP) generated from the Project. On refusal by the ICAR to own the IP, the inventor(s) shall be free to protect it at their own cost provided ICAR has no objection to it in public interest.
6. The PI and the CCPI will not be removed/ transferred from the project without the prior consent of the Empowered Committee of the NASF.
- 7 The decision of the Empowered Committee of the NASF will be final in all matters of the project.

Receipt of this letter may please be acknowledged. The PI is requested to make copies of the sanction letter along with all the Annexures and distribute the same to the CCPI(s) and the heads of the Lead and Cooperating Centers.

Yours faithfully,


(Ashok Kumar)
Principal Scientist 3/1/2024

Copy for information and necessary action to:

- (i) PI/CCPIs of the project
- (ii) Heads of Cooperating Centres
- (iii) DDF, NASF Secretariat
- (iv) Office copy



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Government of National Capital Territory of Delhi

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Certificate No.	: IN-DL99646092931130T
Certificate Issued Date	: 20-Jul-2021 11:50 AM
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Purchased by	: ICAR INDIA AGRICULTURAL RESEACH INSTITUTE
Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: CENTRAL PULP AND PAPER RESEARCH INSTITUTE
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Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



Please write or type below this line.

MEMORANDUM OF AGREEMENT (MoA)

This Memorandum of Agreement is signed on this 26th day of July Month of the year 2021.

BY AND BETWEEN

Central Pulp and Paper Research Institute, having its registered Head office at Paper Mill Road, Himmat Nagar, Saharanpur, U.P. -247001, a National level Institute established in 1980 as an

MEM

WHEREAS, the ICAR-IARI is willing and able to take up the proposed PROJECT.
NOW, THEREFORE, the parties hereto mutually agree as follows:

1.0 AIM OF THE PROJECT:

Land Application of Pulp and Paper Mill Effluent (PPME) through Modern Irrigation Methods.

1.1 MAJOR OBJECTIVES OF THE PROJECT:

- Utilization of treated effluents for land application (agriculture / horticulture) to conserve fresh water.
- Evaluation / Monitoring of the impact of land application of treated effluent on soil properties, ground water quality as well as crop yield

1.1.1 SPECIFIC OBJECTIVES OF THE PROJECT:

- Utilization of treated pulp and paper mill effluent for irrigation of crops through modern water management techniques of drip and micro-sprinklers.
- Monitoring and quantification of the impacts of irrigation with treated effluents on surface & ground water resources, soil quality, environment, ecology and crop productivity.
- Developing appropriate crop specific technologies and package of practices for safe use of effluent in agriculture through monitoring and modelling studies.
- Devising future strategies for scaling up irrigation with treated effluents with long term sustainability of resources, environment and ecological systems.
- Modeling of pollutants and harmful substances as a result of land application of treated Pulp and Paper Mill Effluent (PPME) under changing climatic conditions.

1.1.2 DURATION AND TIME FRAME:

The duration of the project is 60 Months starting from the date of Signing the Memorandum of Agreement "MoA". The time frame for various assignments is given in PERT Chart (**Annexure II**).

1.1.3 BACKGROUND OF THE PROJECT:

Erratic rainfall, declining ground water level and shrinking water resources is making things difficult for the farmers to grow crops / vegetables. Studies have shown that treated effluent from pulp and paper mills contain plant nutrient i.e. nitrogen and phosphorous (used in Effluent Treatment Plant, (ETP)) which can be utilized to grow salt tolerant crops such as wheat, corn, melon, potato, cotton and rice in soil with good drainage facility and solve the water related issues of farmers. The main advantages of using waste water for irrigation is that it can often enhance the fertility of land to which it is applied. This can add considerably to potential crop yield and therefore the associated agricultural resource value.

MEAH



SEAL OF THE PARTIES:

IN WITNESS WHEREOF, the parties hereto have signed the MoA into two sets of originals.

IN WITNESS WHEREOF, the parties to this MoA intending to be legally bound, have duly executed this MoA to become effective as of the date first written above.

SIGNED BY

For and on behalf of ICAR-ICAR-IARI

SIGNED BY

For and on behalf of CPPRI

Signature 

Signature 

Name: Dr. A. K. Singh

Name: Dr M. K. Gupta

Designation: Joint Director (Research)

Designation: Director (in charge) and

ICAR-ICAR-IARI, New Delhi 110012

Secretary, RSC-DCPAI, CPPRI, Paper

(India) **डॉ० अशोक कुमार सिंह / Dr. Ashok Kumar Singh**

Mill Road, Himmat Nagar, Saharanpur,

संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)

U.P. 247001 (India)

भा.कृ.अनु.प.-भारतीय कृषि अनुसंधान संस्थान

India

ICAR-Indian Agricultural Research Institute

नई दिल्ली-110012 / New Delhi-110012

Seal:

डॉ० एम० के० गुप्ता / Dr. M. K. Gupta

प्रभासी निदेशक / Director-in-charge

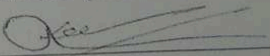
केन्द्रीय लुई एवं कागज अनुसंधान संस्थान

Central Pulp & Paper Research Institute

सहारनपुर/Saharanpur - 247001 (U.P.)

Witness: (Name and Address)

Witness: (Name and Address)

1. 
Dr. Anil Kumar Mishra
Principal Scientist, WTC
ICAR-IARI, New Delhi-12

1. M. P. L. Endray
Dr. NITIN ENDRAY
Scientist E-II & Incharge, E, Mo Div
CPPRI, Saharanpur-247001 (U.P.)

2. Troptimayee Bera
Troptimayee Bera
Scientist, WTC
ICAR-IARI, New Delhi-12.

2. Dr. Neeta Dindi
Senior Scientist, WTC
ICAR-IARI, New Delhi-12

SEAL OF THE PARTIES:

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For and on behalf of CPPRI

Signature 

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Name: Dr. A. K. Singh

Name: Dr M. K. Gupta

Designation: Joint Director (Research)

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Secretary, RSC-DCPAI, CPPRI, Paper

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Mill Road, Himmat Nagar, Saharanpur,

संयुक्त निदेशक (अनुसंधान) / Joint Director (Research)

U.P. 247001 (India)

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India

ICAR-Indian Agricultural Research Institute


नई दिल्ली-110012 / New Delhi-110012

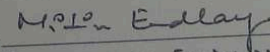
डा० एम० के० गुप्ता / Dr. M. K. Gupta
प्रधान निदेशक / Director-in-charge
केन्द्रीय लुग्दी एवं कागज अनुसंधान संस्थान
Central Pulp & Paper Research Institute
सहारनपुर / Saharanpur - 247001 (U.P.)

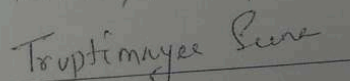
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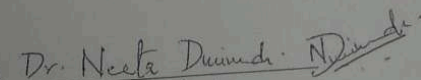
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Principal Scientist, WTC
ICAR-IARI, New Delhi-12

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CPPRI, Saharanpur-247001 (U.P.)

2. 
Tryptimayee Sena
Scientist, WTC
ICAR-IARI, New Delhi-12.

2. 
Dr. Neeta Dindi
Senior Scientist, WTC
ICAR-IARI, New Delhi-12



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Unique Doc. Reference	: SUBIN-DL95930384221890951269T
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Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: DR BHUPINDER SINGH ICAR IARI NEW DELHI
Second Party	: TATA STEEL LTD AND JSW STEEL LTD AND SAIL
Stamp Duty Paid By	: DR BHUPINDER SINGH ICAR IARI NEW DELHI
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



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MEMORANDUM OF UNDERSTANDING (MoU)

This Memorandum of Understanding (MoU) is made and entered on this 6th day of JULY in the year 2021 ("Effective Date") between ICAR- Indian Agricultural Research Institute (A university under section 3 of UGC Act, 1956), New Delhi 110012 (hereinafter called ICAR-IARI which expression shall include its successors-in-interest and assigns)- a constituent unit of the Indian Council of Agricultural Research (ICAR), located at Rajendra Prasad Road, Krishi Bhawan, New Delhi-110001 (a Society under the Societies

Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at 'www.ahilestamp.com' or using e-Stamp Mobile App of Stock Holding.
2. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
3. The onus of checking the legitimacy is on the users of the certificate.
4. In case of any discrepancy please inform the Competent Authority.

File Place
9/7/21

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Registration Act, 1860) on one part and Tata Steel Limited (Tata), JSW Steel Limited (JSW) and Steel Authority of India Limited (SAIL) (hereinafter called IPs which expression shall include its successors-in-interest and assigns) on the other part for pursuing the R&D project titled "**Development of Steel Slag Based Cost Effective Eco-Friendly Fertilizers for Sustainable Agriculture and Inclusive Growth**", facilitated and part funded by Ministry of Steel (MoS), Government of India.

Objective of MoU

To carry out research and development activities on "**Development of Steel Slag Based Cost Effective Eco-Friendly Fertilizers for Sustainable Agriculture and Inclusive Growth**" as a part of the Research Project (Annexure-I) funded by the Ministry of Steel and IPs. The main objective is to delineate potential applications of steel slag in agriculture as soil amendment (liming material) for acid soil reclamation, source of plant nutrients, development of alternate fertilizers along with waste of other industries, Green House Gases (GHG) emission mitigation and stabilization of heavy metals on contaminated sites while warding off the negative effects or problems of soluble salts, over liming and heavy metals.

Agencies Involved

The Center for Environment Science and Climate Resilient Agriculture (CESCRA), ICAR-IARI, New Delhi shall be the Nodal Agency for coordinating entire research projects at various locations in the country by involving ICAR-IARI, Wellington; ICAR-IARI, Dharwad; ICAR-NRRI, Cuttack, Odisha; ICAR Research Complex for NEH Region, Umiam, Meghalaya; G.B Pant University of Agriculture and Technology, Pantnagar, US Nagar, Uttrakhand; Dayalbagh Educational Institute, Dayalbagh, Agra, Uttar Pradesh and CCSHAU, Hisar, Haryana as the collaborating Institutes and shall be responsible for overall deliverables of the project. Tata Steel Ltd, Jindal Steel Limited and SAIL will be the Industry partners.

Background

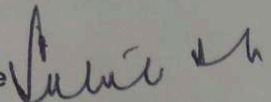
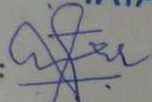
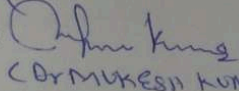

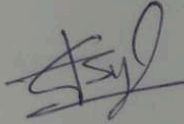

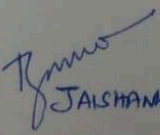
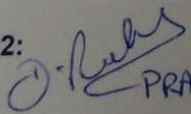
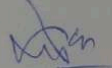
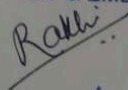
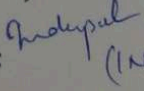
Ministry of Steel is sponsoring various R&D projects in the field of Iron and Steel for the last several years to promote research, adoption of which can improve global competitiveness of the industry besides ensuring utilization of domestic resources, upgradation of existing operations by cost effective and environmental friendly technologies, minimization of wastes and reduction of GHG emissions to become at par with global peers.

Steel Slag generated in the Integrated Steel Plants has very limited applications and thus are getting accumulated in various plants. Around 10 million tonnes of slag is generated each year and likely to be doubled by 2030. Steel slag has been successfully used as a substitute for limestone to neutralize soil acidity in agricultural soils for many years, and research has shown slag use to be comparable to or superior to limestone in some cases. It can also be used for improving the physicochemical properties of poor and contaminated soils. In addition, to its liming benefits, slag contains plant nutrients that can enhance plant growth. Slag also contains several macro-, micro- and beneficial nutrients such as Ca, Fe, P, Si etc

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This MoU is made in two originals (each party retaining one original) and comes in to force on the day when all parties have signed it.

Signed on this 6th day of JULY, 2021

<p>For and behalf of Tata Steel Limited</p> <p>Signature </p> <p>Name <u>Sateesh Singh</u></p> <p>Designation <u>Chief Resident Executive</u></p> <p>Seal (Chief Resident Executive), Delhi TATA STEEL LTD.</p> <p>Witness 1:  <u>(ANKAN MITRA)</u></p> <p>Witness 2:  <u>(DR. MUKESH KUMAR)</u></p>	<p>For and behalf of ICAR-IARI</p> <p>Signature </p> <p>Name डॉ. अशोक कुमार सिंह / Dr. Ashok Kumar Singh</p> <p>Designation निदेशक / Director भा.कृ.अ.प.-भा.कृ.अ.स. नई दिल्ली-110012 ICAR-IARI, New Delhi-110012</p> <p>Seal</p> <p>Witness 1: <u>Bhupinder Singh</u> <u>(BHOPINDER SINGH)</u></p> <p>Witness 2: <u>Pramod Kumar</u> <u>(PRAMOD KUMAR)</u></p>
<p>For and behalf of JSW Steel Limited</p> <p>Signature </p> <p>Name</p> <p>Designation</p> <p>Seal </p> <p>Witness 1:  <u>JAI SHANKAR BALAN</u></p> <p>Witness 2:  <u>PRAKASH JUVVURI</u></p>	<p>For and behalf of Steel Authority of India Limited (SAIL)</p> <p>Signature </p> <p>Name <u>S K DAS</u></p> <p>Designation <u>ED (GD & EMD)</u></p> <p>Seal एस. के. दास S. K. DAS कार्यपालक निदेशक Executive Director जी.डी. एवं ई.एम.डी. / सेल, कोलकाता GD & EMD, / SAIL, Kolkata</p> <p>Witness 1:  <u>(RAKHI SEN)</u></p> <p>Witness 2:  <u>(INDERPAL DHULL)</u></p>

Praveed