

## AGREEMENT

This agreement is made at Hindustan Gum & Chemicals Ltd., Birla Colony, Bhiwani – 127021, Haryana on this 1<sup>st</sup> day of April 2018.

### BETWEEN

Hindustan Gum & Chemicals Ltd., a company incorporated under the Indian Companies Act, 1956 having its registered office at Birla Colony, Bhiwani – 127021, Haryana, India of the one part.

### AND

Professor Niranjn Karak, Advanced Polymer and Nanomaterial Laboratory, TEZPUR UNIVERSITY, a central university, with its campus at Napaam, Tezpur, Sonitpur, Assam 784028, of the other part.

Hindustan Gum & Chemicals Ltd. and Professor Niranjn Karak may be referred individually as PARTY and jointly as PARTIES,

WHEREAS,

- A. Hindustan Gum & Chemicals Ltd. desires to contract with Professor Niranjn Karak to undertake the project entitled: "Guar gum based multifaceted superabsorbent"
- B. Hindustan Gum & Chemicals Ltd. and Professor Niranjn Karak are now participating in the Project in accordance with this agreement.

NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

#### 1. OBLIGATION OF THE PARTIES

1.1 Prof. Niranjn Karak, Head of Advanced Polymer and Nanomaterial Laboratory shall be responsible for the approaches and procedures necessary for the said Project.

1.2 Neither party shall register or attempt to register or patent or make a media release of the Project, the results of the research in respect of the Project unilaterally without the consent of the other party.

1.3 The parties shall conduct the Project in accordance with the scope of work of this agreement as detailed in Annexure-I.

1.4 The parties shall make all necessary disclosures of the know- how and intellectual property generated by each other independently and jointly in the course of the Project to each other for joint decision about protection of intellectual property.

1.5 Prof. Niranjn Karak will act as a Project consultant and help the employee of Hindustan Gum & Chemicals Ltd. in deciding the approach, methodology, experimental plan pertaining to the Project. The Project outcome will be reviewed on a half yearly basis. For review and guidance the Project consultant will visit Hindustan Gum & Chemicals Ltd., premises thrice in a year for maximum duration of two days at a time. In addition, there will be teleconference as and when required at a suitable time schedule of both.

1.6 It is mutually agreed between to the Parties that the sponsorship fees payable to the Consultant for distant guiding and visiting of the industry during the Project of one-year duration shall be Rs 2 lacs per year + service taxes as applicable. In addition to this Hindustan Gum & Chemicals Ltd. will bear the actual expenses incurred towards road and air travel (to and fro), boarding and lodging cost during the visit of Project consultant to Hindustan Gum & Chemicals Ltd.'s premises.

## 2. CONFIDENTIALITY AND DATA PROTECTION

- 2.1 The Parties herein shall take adequate technical and organizational security measures sufficient to protect the Confidentiality Information.
- 2.2 Each party shall ensure that only those of their officers, agents and assigned employees directly concerned with the carrying out of this Agreement shall have access to the Confidential Information of the other party.
- 2.3 Both parties undertake to treat as strictly confidential and not to disclose to any third party any Confidential Information of the other party. The party required to make the disclosure shall inform the other party within a reasonable time prior to being required to make the disclosure and the information required to be disclosed.
- 2.4 Each party undertakes not to make use of any Confidential Information of the other party, other than in accordance with this Agreement, without the prior written consent of the other party.
- 2.5 Save as aforesaid and unless otherwise expressly set out in this Agreement, this clause shall remain in force for a period for a three years after the termination or expiry of this agreement.

## 3. PUBLICITY

- 3.1 Neither Party will use the name of the other, nor of any member of their staff, in any publicity, advertising or news release without the prior written approval of the other Party, such approval not to be unreasonably withheld. Either Party will not, and will ensure that they do not, use their employees, nor the name of the Project, nor the name of the Research done, in any publicity, advertising or news release without the prior approval of the other Party, such approval not to be unreasonably withheld.
- 3.2 Neither Party will issue any information or statement to the press or public or any form of media, including but not limited to advertisement, applications for patents, presentations to any institutes, bodies, for opinion by the research ethics committee without the prior written permission of the other.

## 4. INTELLECTUAL PROPERTY AND KNOW HOW

- 4.1 All Intellectual Property Rights and Know How owned by or licensed prior to the date of this Agreement or to acquire after the date of this Agreement outside the Project under this Agreement are and shall remain the sole property of the respective party.
- 4.2 Any Intellectual Property Rights and Know How including without limitation copyright, data base right, confidential information, patents, inventions, design rights (whether registered or unregistered) and trademarks developed, created, discovered, invented, designed, written or prepared during the Project or otherwise under this Agreement shall belong jointly owned by the Parties. The patent coming out of the work will be filed jointly by both the parties and the patent will be assigned to Hindustan Gum & Chemicals Ltd without any cost. The company will bear the necessary expenses for filing and maintenance of patent and will be the sole owner of the patent.
- 4.3 It is agreed that Prof. Niranjana Karak will not undertake similar or a related project with any of the competitors of Hindustan Gum & Chemicals Ltd. during the tenure of this project.

## 5. OWNERSHIP and LIEN

The Know How, the Intellectual Properties and Confidential Information generated and developed in the course of the execution of the Project, the ownership thereof vest jointly with both parties. University shall offer unconditionally non-exclusive and non-transferable license to the company for using such intellectual property in the operation of their own company and associate companies. Prof. Niranjana

Karak shall obtain Hindustan Gum & Chemicals Ltd.'s prior permission in writing before granting any license to use know-how and intellectual property, generated or developed during this Project to any third party.

#### 5. LIABILITIES AND INDEMNITY

5.1 The parties hereby agree and undertake to indemnify and keep each other indemnified against any loss, claim, damage incurred by them due to any misinterpretation, act, omission or commission caused by the other that is likely to affect either parties.

5.2 Hindustan Gum & Chemicals Ltd. and Prof. Niranjana Karak expressly disclaim any liability in connection with any death, personal injury or loss of or damage to property caused to any of the staff whether permanent or contractual while working on the Project.

#### 6. FINANCIAL ARRANGEMENTS

6.1 In consideration of the above work rendered by Prof. Niranjana Karak pursuant to this Agreement, Hindustan Gum & Chemicals Ltd. shall make such payments as is more specifically provided in ANNEXURE-I hereto.

6.2 All payments will be made according to the schedule contained in ANNEXURE -I.

#### 7. TERM

This agreement will remain in effect for one year from the date of signing of this agreement or earlier termination in accordance with this agreement unless extended by mutual written consent.

#### 8. TERMINATION

Either party has the right to terminate this agreement, upon written notice in that behalf being given by one party to other on the happening of anyone of the following events.

a) If any party shall default or commit a breach ( including the provisions relating to intellectual property rights or confidentiality ) of any provisions hereof and shall fail or neglect to cure such defaults or breach within 15 days of being called upon in writing to do so by the other party.

b) If either party is placed in liquidation (other than the purpose of reconstruction or amalgamation) or shall have receiver, administrative receiver, or administrator appointed in respect of any of its undertaking or assets.

Either party may terminate this Agreement without assigning any reason whatever, subject to written notice of one month being provided to the other of such intention to terminate.

#### 9. NOTICES

All notices require any permitted by this agreement shall be given to the parties in the English language by registered post/regular mail with postage prepaid or by air courier, fax (if faxed confirmation by hard copy within three days) directed to the parties at the address given below in writing or at such other addresses as may be supplied in writing by the party from time to time.

Address of Company: Hindustan Gum & Chemicals Ltd., Birla Colony, Bhiwani – 127021, Haryana, India

AND

Address of consultant: Professor Niranjana Karak , Advanced Polymer and Nanomaterial Laboratory, Tezpur University, Napaam, Tezpur, Sonitpur, Assam- 784028, India

#### 10. RELATIONSHIP BETWEEN THE PARTIES

10.1 It is agreed that this Agreement is between two independent parties and is purely on principal to principal basis. Nothing in this agreement shall be construed as creating a partnership, contract of employment and relationship of principal and agent between any of the parties.

10.2 No party may assign, sub-delegate, license its rights under this Agreement or any part thereof without the prior written consent of the other parties and no party may sub-contract the performance of all or any of its obligations under this Agreement with the prior written consent of the other parties. Any party who so sub-contract shall be responsible for the acts and omission of sub-contractors as thought they were its own.

#### 11. AGREEMENT AND MODIFICATION

11.1 Any change in the terms of this Agreement shall be valid only if the change is made in writing, agreed and signed by the Parties.

11.2 An amendment schedule shall be signed and appended to this Agreement according to clause above.

11.3 This Agreement including its appendices contains the entire understanding between the parties and supersedes all other negotiation, representations and undertakings whether written or oral of prior date between the parties relating to the clinical trial which is the subject of this Agreement.

#### 12. JURISDICTION

All disputes arising in connection with this Agreement shall be subject to Jurisdiction of Civil Courts situated at Bhiwani (Haryana), India.

#### ANNEXURE-I

##### Scope of work:

Under the agreement signed between Hindustan Gum & Chemicals Ltd. and Professor Niranjana Karak dated 1st April 2018, the scope is as follows.


1	Project Title	“Guar gum based multifaceted superabsorbent”
2	Project Value	Rs. 2,00,000/- + Service Taxes as applicable
3	Objective of the Project	The main objective of the proposed Project is to develop Guar gum based multifaceted superabsorbent. This objective is associated with the following sub-objectives. (i) To modify the existing guar gum by nanomaterial like nanoclay along with other required components to achieve desired superabsorbent. (ii) To encapsulate the desired fertilizer /pesticide in the above superabsorbent. (iii) To study the release profile of the encapsulated fertilizer/pesticide. (iv) To optimize the compositions and process conditions of the required system.

4	Scope of the work	<p>1. Laboratory scale preparation of guar gum based superabsorbent by nanomaterial like nanoclays and its characterization.</p> <p>2. Evaluation of the water absorption and retention capacity.</p> <p>3. Laboratory scale encapsulation of fertilizer with above superabsorbent.</p> <p>4. Evaluation of release profile of the fertilizer by UV-visible studies.</p> <p>5. Optimization of the compositions and process conditions to achieve the desired control release superabsorbent fertilizer system.</p>
5	Coordination from Hindustan Gum & Chemicals Ltd.	Mr.R.L.Ray/Dr.Sandipta Ghosh
6	Mode of payment	Rs 2.0 lakh per annum in two half yearly instalment of Rs 1.0 lakh each plus Service Taxes as applicable
7	Project starting date	1 <sup>st</sup> of April,2018
8	Project completion date	31 <sup>st</sup> of March, 2019
9.	Consultant visit	Four visits for minimum two days each, per year – entire cost of travel and hospitality to be borne by the company.

Signatures

For Hindustan Gum & Chemicals Ltd.

1. V. K. Sharda,  
President,  
Hindustan Gum & Chemicals Ltd.

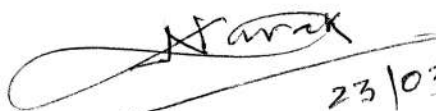
  
(V. K. SHARDA) 17/03/2018  
President

2. Dr. Biren Das,  
Registrar,  
Tezpur University

  
23/03/18

3. Dr. Niranjana Karak,  
Professor of Chemical Sciences Department,  
Tezpur University

कुलसचिव  
तेजपुर विश्वविद्यालय  
Registrar  
Tezpur Un

  
23/03/2018

Dr. Niranjana Karak  
Professor  
Dept. of Chemical Sciences  
Tezpur University

## AGREEMENT

This agreement is made at Hindustan Gum & Chemicals Ltd., Birla Colony, Bhiwani – 127021, Haryana on this 19<sup>th</sup> day of April 2019.

BETWEEN

Hindustan Gum & Chemicals Ltd., a Company incorporated under the Indian Companies Act in the year 1962 and governed under Indian Companies Act 1956, having its Registered office at Birla Colony, Bhiwani – 127021, Haryana, India of the one part.

AND

Professor Niranjan Karak, Advanced Polymer and Nanomaterial Laboratory, TEZPUR UNIVERSITY, a central university, with its campus at Napaam, Tezpur, Sonitpur, Assam 784028, of the other part.

Hindustan Gum & Chemicals Ltd. and Professor Niranjan Karak may be referred individually as PARTY and jointly as PARTIES,

WHEREAS,

- A. Hindustan Gum & Chemicals Ltd. desires to contract with Professor Niranjan Karak to undertake the project entitled: "Guar gum based multifaceted superabsorbent"
- B. Hindustan Gum & Chemicals Ltd. and Professor Niranjan Karak are now participating in the Project in accordance with this agreement.

NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

### 1. OBLIGATION OF THE PARTIES

1.1 Prof. Niranjan Karak, Head of Advanced Polymer and Nanomaterial Laboratory shall be responsible for the approaches and procedures necessary for the said Project.

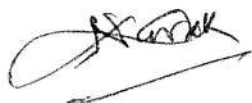
1.2 Neither party shall register or attempt to register or patent or make a media release of the Project, the results of the research in respect of the Project unilaterally without the consent of the other party.

1.3 The parties shall conduct the Project in accordance with the scope of work of this agreement as detailed in Annexure-I.

1.4 The parties shall make all necessary disclosures of the know-how and intellectual property generated by each other independently and jointly in the course of the Project to each other for joint decision about protection of intellectual property.

1.5 Prof. Niranjan Karak will act as a Project consultant and help the employee of Hindustan Gum & Chemicals Ltd. in deciding the approach, methodology, experimental plan pertaining to the Project. The Project outcome will be reviewed on a half yearly basis. For review and guidance the Project consultant will visit Hindustan Gum & Chemicals Ltd., premises thrice in a year for maximum duration of two days at a time. In addition, there will be teleconference as and when required at a suitable time schedule of both.

1.6 It is mutually agreed between to the Parties that the sponsorship fees payable to the Consultant for distant guiding and visiting of the industry during the Project of one-year duration shall be Rs 3 lacs per year + service taxes as applicable. In addition to this Hindustan Gum & Chemicals Ltd. will bear the actual expenses incurred towards road and air travel (to and fro), boarding and lodging cost during the visit of Project consultant to Hindustan Gum & Chemicals Ltd.'s premises.



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## 2. CONFIDENTIALITY AND DATA PROTECTION

2.1 The Parties herein shall take adequate technical and organizational security measures sufficient to protect the Confidentiality Information.

2.2 Each party shall ensure that only those of their officers, agents and assigned employees directly concerned with the carrying out of this Agreement shall have access to the Confidential Information of the other party.

2.3 Both parties undertake to treat as strictly confidential and not to disclose to any third party any Confidential Information of the other party. The party required to make the disclosure shall inform the other party within a reasonable time prior to being required to make the disclosure and the information required to be disclosed.

2.4 Each party undertakes not to make use of any Confidential Information of the other party, other than in accordance with this Agreement, without the prior written consent of the other party.

2.5 Save as aforesaid and unless otherwise expressly set out in this Agreement, this clause shall remain in force for a period for a three years after the termination or expiry of this agreement.

## 3. PUBLICITY

3.1 Neither Party will use the name of the other, nor of any member of their staff, in any publicity, advertising or news release without the prior written approval of the other Party, such approval not to be unreasonably withheld. Either Party will not, and will ensure that they do not, use their employees, nor the name of the Project, nor the name of the Research done, in any publicity, advertising or news release without the prior approval of the other Party, such approval not to be unreasonably withheld.

3.2 Neither Party will issue any information or statement to the press or public or any form of media, including but not limited to advertisement, applications for patents, presentations to any institutes, bodies, for opinion by the research ethics committee without the prior written permission of the other.

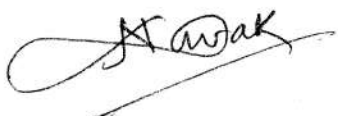
## 4. INTELLECTUAL PROPERTY AND KNOW HOW

4.1 All Intellectual Property Rights and Know How owned by or licensed prior to the date of this Agreement or to acquire after the date of this Agreement outside the Project under this Agreement are and shall remain the sole property of the respective party.

4.2 Any Intellectual Property Rights and Know How including without limitation copyright, data base right, confidential information, patents, inventions, design rights (whether registered or unregistered) and trademarks developed, created, discovered, invented, designed, written or prepared during the Project or otherwise under this Agreement shall belong jointly owned by the Parties. The patent coming out of the work will be filed jointly by both the parties and the patent will be assigned to Hindustan Gum & Chemicals Ltd without any cost. The company will bear the necessary expenses for filing and maintenance of patent and will be the sole owner of the patent.

4.3 It is agreed that Prof. Niranjana Karak will not undertake similar or a related project with any of the competitors of Hindustan Gum & Chemicals Ltd. during the tenure and up to three years after the competition of this project

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## 5. OWNERSHIP and LIEN

The Know How, the Intellectual Properties and Confidential Information generated and developed in the course of the execution of the Project, the ownership thereof vest jointly with both parties. University shall offer unconditionally non-exclusive and non-transferable license to the company for using such intellectual property in the operation of their own company and associate companies. Prof. Niranjana Karak shall obtain Hindustan Gum & Chemicals Ltd.'s prior permission in writing before granting any license to use know-how and intellectual property, generated or developed during this Project to any third party.

## 5. LIABILITIES AND INDEMNITY

5.1 The parties hereby agree and undertake to indemnify and keep each other indemnified against any loss, claim, damage incurred by them due to any misinterpretation, act, omission or commission caused by the other that is likely to affect either parties.

5.2 Hindustan Gum & Chemicals Ltd. and Prof. Niranjana Karak expressly disclaim any liability in connection with any death, personal injury or loss of or damage to property caused to any of the staff whether permanent or contractual while working on the Project.

## 6. FINANCIAL ARRANGEMENTS

6.1 In consideration of the above work rendered by Prof. Niranjana Karak pursuant to this Agreement, Hindustan Gum & Chemicals Ltd. shall make such payments as is more specifically provided in ANNEXURE-I hereto.

6.2 All payments will be made according to the schedule contained in ANNEXURE -I.

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This agreement will remain in effect for one year from 1<sup>st</sup> April, 2019, or earlier termination in accordance with this agreement unless extended by mutual written consent.

## 8. TERMINATION

Either party has the right to terminate this agreement, upon written notice in that behalf being given by one party to other on the happening of anyone of the following events.

a) If any party shall default or commit a breach ( including the provisions relating to intellectual property rights or confidentiality ) of any provisions hereof and shall fail or neglect to cure such defaults or breach within 15 days of being called upon in writing to do so by the other party.

b) If either party is placed in liquidation (other than the purpose of reconstruction or amalgamation) or shall have receiver, administrative receiver, or administrator appointed in respect of any of its undertaking or assets.

Either party may terminate this Agreement without assigning any reason whatever, subject to written notice of one month being provided to the other of such intention to terminate.

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## 9. NOTICES

All notices require any permitted by this agreement shall be given to the parties in the English language by registered post/regular mail with postage prepaid or by air courier, fax (if faxed confirmation by hard copy within three days) directed to the parties at the address given below in writing or at such other addresses as may be supplied in writing by the party from time to time.

Address of Company: Hindustan Gum & Chemicals Ltd., Birla Colony, Bhiwani – 127021, Haryana, India

AND

Address of consultant: Professor Niranjana Karak ,Advanced Polymer and Nanomaterial Laboratory, Tezpur University, Napaam, Tezpur, Sonitpur, Assam- 784028, India

## 10. RELATIONSHIP BETWEEN THE PARTIES

10.1 It is agreed that this Agreement is between two independent parties and is purely on principal to principal basis. Nothing in this agreement shall be construed as creating a partnership, contract of employment and relationship of principal and agent between any of the parties.

10.2 No party may assign, sub-delegate, license its rights under this Agreement or any part thereof without the prior written consent of the other parties and no party may sub-contract the performance of all or any of its obligations under this Agreement with the prior written consent of the other parties. Any party who so sub-contract shall be responsible for the acts and omission of sub-contractors as though they were its own.

## 11. AGREEMENT AND MODIFICATION

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11.2 An amendment schedule shall be signed and appended to this Agreement according to clause above.

11.3 This Agreement including its appendices contains the entire understanding between the parties and supersedes all other negotiation, representations and undertakings whether written or oral of prior date between the parties relating to the clinical trial which is the subject of this Agreement.

## 12. JURISDICTION

All disputes arising in connection with this Agreement shall be subject to Jurisdiction of Civil Courts situated at Bhiwani (Haryana), India.

### ANNEXURE-I

#### **Scope of work:**

Under the agreement signed between Hindustan Gum & Chemicals Ltd. and Professor Niranjana Karak dated 19th April 2019, the scope is as follows.

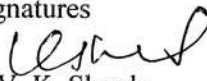
1	Project Title	“Guar gum based multifaceted superabsorbent”
2	Project Value	Rs. 3,00,000/- + Service Taxes as applicable


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3	Objective of the Project	<p>The main objective of the proposed Project is to develop Guar gum based multifaceted superabsorbent. This objective is associated with the following sub-objectives.</p> <p>(i) To modify the existing guar gum and starch by nanomaterial like nanoclay along with other required components to achieve desired superabsorbent.</p> <p>(ii) To encapsulate the desired fertilizer /pesticide in the above superabsorbent.</p> <p>(iii) To study the release profile of the encapsulated fertilizer/pesticide.</p> <p>(iv) To optimize the compositions and process conditions of the required system.</p>
4	Scope of the work	<p>1. Laboratory scale preparation of guar gum and starch based superabsorbent by nanomaterial like nanoclays and its characterization.</p> <p>2. Evaluation of the water absorption and retention capacity.</p> <p>3. Laboratory scale encapsulation of fertilizer with above superabsorbent.</p> <p>4. Evaluation of release profile of the fertilizer by UV-visible studies.</p> <p>5. Optimization of the compositions and process conditions to achieve the desired control release superabsorbent fertilizer system.</p>
5	Coordination from Hindustan Gum & Chemicals Ltd.	Mr.R.L.Ray/Dr.Sandipta Ghosh
6	Mode of payment	Rs 3.0 lakh per annum in two half yearly instalment of Rs 1.5 lakh each plus Service Taxes as applicable
7	Project starting date	1 <sup>st</sup> of April, 2019
8	Project completion date	31 <sup>st</sup> of March, 2020
9.	Consultant visit	Four visits for minimum two days each, per year – entire cost of travel and hospitality to be borne by the company.

Signatures

  
1. V. K. Sharda,  
President,  
Hindustan Gum & Chemicals Ltd.

  
2. Dr. Niranjana Karak,  
Dean, Research and Development  
Tezpur University

AFO/C4D/2018/98

08 May 2018

Dr. Biren Das  
Registrar  
Tezpur University  
Napaam, Tezpur  
Sonitpur – 784172

Dear Dr. Das

UNICEF Partnership with Tezpur University (Department of Mass Communication): 'Advancing Communication for Development as a strategy for Social Change in Assam and NE region (Phase III). This has reference to your letter dated 8th May 2018 received in our office on 9th<sup>n</sup> May 2018 forwarding the proposal and supporting documents relating to the project proposal for "Advancing Communication for Development as a strategy for Social Change in Assam and NE region (Phase III).

We have reviewed the proposal and confirm our support to a maximum of Rs. 11, 10,100/- (Rupees Eleven Lakh Ten Thousand One Hundred only) as given below *on reimbursement basis*. As discussed and agreed with Ms Joya Chakravarty, Associate Professor, Mass Communication and Journalism (MCJ), UNICEF, Assam also partners with Cultural Studies department of Tezpur University, however, budgets of these two departments are not joint but submitted separately, therefore advance could not be released to both. The detailed budget for each component is given as enclosure.

Sl. No.	Particulars	15 <sup>th</sup> May- July 2018	Aug-Oct 2018	Nov-Dec 2018
1	UNICEF Partnership with Tezpur University (Department of Mass Communication): 'Advancing Communication for Development as a strategy for Social Change in Assam and NE region (Phase III)	2,37,500.00	4,46,000.00	4,40,600.00
TOTAL BUDGET		Rs. 11,10,100.00		

We would request you to kindly let us have the duly completed FACE form to enable us to process the approved budget for the same. On completion of the activities we would request you to kindly let us have the duly completed FACE form, Statement of Expenditure (SoE) with list of participants, as well as report which would enable us to reimburse this amount.

As part of our standard operating procedure, we need to undertake the financial assessment of Implementing Partners. In this regard, UNICEF operation and finance team may visit your office on periodic basis, upon mutually convenient dates, and review the financial processes and systems with your accounts and finance staff

Please take note of the following requirements with regard to management of funds released by UNICEF

1. Fund should be utilised only for the purpose for which they are released as per the approved budget.
2. Advance cash assistance released has to be settled within four weeks of completion of the activities and in any case not later than three months from the date of release by submitting the following.
  - Statement of Expenditure (SOE) duly signed and stamped by the concerned official in UNICEF prescribed format.
  - Funding Authorization and Certification of Expenditure (FACE) form should be completed and submitted along with the Statement of Expenditure (SOE).

Please note that as per financial rules, UNICEF cannot release any further funds to recipients with accounts outstanding for more than six months.

3. If your department/organisation is not in a position to utilize UNICEF's cash assistance within a period of five months from the date of release of funds, the unutilized cash assistance should be refunded to UNICEF in the form of cheque payable to 'UNICEF'
4. Unutilized fund can't be retained by you or spent for any other activity without prior written approval of UNICEF.
5. Please note that deviation in any budget line item should not exceed 10%. Deviation, beyond that, if any, should be agreed in writing by UNICEF prior to expenditure and provided that the total approved budget is not exceeded.
6. A brief report on the activities and list of participants (trainings) is desirable.

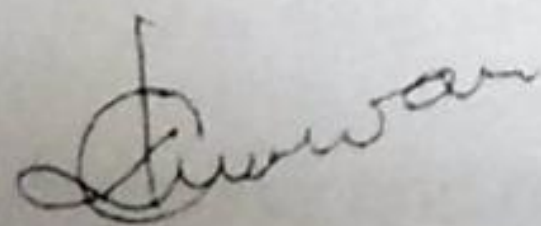
Please be informed that our financial regulations require that all relevant vouchers be stamped 'PAID – CHARGED TO UNICEF ACCOUNT' and are retained in your files for four years.

UNICEF Assam Office's operation and finance team may visit your office on periodic basis for on-site reviews in the form of 'spot checks' of the cash assistance. This will involve review of books of accounts, vouchers, bills and other related financial documents. Monitoring visits will also be conducted time to time during the implementation of the activities by Programme officers from UNICEF and a **Programme monitoring report** will be submitted to UNICEF by the visiting officers.

Looking forward to a fruitful partnership to take ahead the agenda of Social and Behavior Change Communication (SBCC) in the state.

With best regards,

Yours Sincerely,



Chaya Kunwar  
OIC- Field Office  
UNICEF Assam

UNICEF | for every child

UNICEF Children's Fund | State Office for Assam  
Bylane # 3, Beltola Road, Guwahati 781 028, Assam  
(+91) 361 2235151/53 | Facsimile: (+91) 361 2235161 | guwahati@unicef.org | www.unicef.in

AF-O/CDN/2018/163  
06<sup>th</sup> Aug 2018

Prof. Virginius Xaxa  
Head of Department  
Department of Social Work,  
Tezpur University,  
Napam, Tezpur 784 028

Dear Prof. Xaxa,

Approval to the proposal on 'Assessment of Nutrition cum Counselling Centres in Assam'


This has reference to your letter dated 6<sup>th</sup> Aug 2018, forwarding the proposal on 'Assessment of Nutrition cum Counselling Centres in Assam'.

We have reviewed the proposal and we confirm our support to a maximum of Rs. 19,08,700/- (Rs. Nineteen Lakh Eight thousand and seven hundred only) for the period 15 Aug to 15 Nov 2018. The detailed budget is enclosed herewith.

We request you to forward the duly completed FACE form in order to release the advance funds for the activity. On completion of the activity, we look forward to receiving duly filled FACE form, detailed statement of expenditure showing approved budget vs actual expenditure, vouchers/receipt numbers to enable us to liquidate the funds advanced and release the balance amount, if any, up to the approved budgetary ceiling.

We look forward to strengthening UNICEF's partnership with Department of Social Work, Tezpur University for effective implementation of programs for women and child welfare in Assam.

With best wishes,  
Yours sincerely,

  
Dr. Tushar Rane  
Chief of Field Office,  
UNICEF Assam

  
Head  
Dept. of Social Work  
Tezpur University

AFO/NUT/2019/201  
3<sup>rd</sup> Sept 2019

Prof. C K Sharma  
Head of Dept., Dept of Social Work  
Tezpur University

Dear Prof. Sharma,

**Approval letter for request for support for State Nutrition and Community Action  
Resource Centre for the period of 10<sup>th</sup> Sept to 31<sup>st</sup> Dec 2018**

This has reference to your request letter TU/SW/191/A dated 3<sup>rd</sup> Sep 2019, forwarding the request for support for State Nutrition and Community Action Resource Centre at Tezpur University.

We have reviewed the proposal and we confirm our support to a maximum of Rs. 20,20,050/- (Rupees Twenty lakh twenty thousand and fifty only) for the period 10<sup>th</sup> Sept to 31<sup>st</sup> Dec 2019. The detailed budget is enclosed in Annexure A.

We request you to forward the duly completed FACE form in order to release the advance funds for the activity. On completion of the activity, we look forward to receiving duly filled FACE form, detailed statement of expenditure showing approved budget vs actual expenditure, vouchers/receipt numbers, as well as a brief report on the activity to enable us to liquidate the funds advanced and release the balance amount, if any, up to the approved budgetary ceiling.

We look forward to strengthening UNICEF's partnership with the University for effective implementation of programs for women and child nutrition in the state.

With best wishes,

Yours sincerely,



Ms. Chhaya Kunwar  
Officer-in-charge  
UNICEF Assam

DEPARTMENT OF SOCIAL WORK, TEZPUR UNIVERSITY  
(A Central University)  
Napam, Tezpur 784028

Tu/sw/191/A

C K Sharma  
Professor and Head

3 September 2019


Dr Shweta Sharma  
Nutrition Specialist  
UNICEF, Assam

Dear Shweta,

Greetings from Tezpur University!

In the month of February 2019, NITI Aayog had organized a National level workshop on 'Improving Dietary Diversity in Selected Districts under POSHAN Abhiyaan' wherein Academic Institutions were invited for participation. In the North East Region two institutions were selected and Tezpur University was one of them. The deliberations in the workshop pointed towards adopting a multidisciplinary approach towards Nutrition and advocated for convergence of different departments in addressing Nutritional concerns. In continuation to this, we intend to start a Nutrition and Community Action Resource Centre (NCARe Centre) at the Department of Social Work to realise the mandate of Niti Aayog in the area of Nutrition. The centre envisages to contribute through research, community action, and education and subsequently develop into a support unit for the State Government. The concept note and a budget is attached for your consideration.

Yours sincerely,



C K Sharma

Head  
Department of Social Work  
Tezpur University

## State Nutrition and Community Action Resource Centre (NCARe Centre)

### **Background.**

The rationale for working on Nutrition is widely recognized. It is crucial to the holistic development as well as critical from the Human Rights perspective. Nutrition is considered as one of the most effective points in dealing with Human development, poverty reduction and economic development.<sup>1</sup> The National Family Health Survey 4 (NFHS-4) reports that more than 36% children under the age of five years are stunted in Assam and more than 17% under-five children are wasted. The recently published Human Development Report 2014 highlights that Assam falls under the band of poor performing states among the other states of the country with regard to health and nutrition.

With more than a million under-five children stunted in the state, there is a need for strong multi-sectoral actions to improve the status of nutrition. The GoI has launched the Poshan Abhiyaan with the aim to holistically address the multi-sectoral problem of undernutrition. Under Poshan Abhiyaan the state has a target of reducing child stunting by 2% points per annum. As the state strives to achieve this target, Tezpur University envisages playing the role of a technical and knowledge management partner to the state government to support building multi-sectoral solutions for addressing malnutrition in Assam.

### **Tezpur University's Past Work on Nutrition**

In 2018, Tezpur University had collaborated with UNICEF Assam to support a study on Nutrition Counselling and Management Centres (NCMCs) in the state. The NCMCs are functioning at various districts, located at District Civil Hospitals and Public Health Centres. The NCMCs have a designated Nutrition counsellor who performs a range of activities like (i) counselling on Maternal Infant and Young Child Nutrition; (ii) identification and referral of children with severe acute malnutrition, (iii) identifying Moderate Acute Malnutrition (MAM) children, counsel the mothers and do follow ups (iv) counselling the pregnant and the lactating women (v) taking up preventive measures to tackle malnourishment (vi) field visits to Village

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<sup>1</sup> Source- [https://www.niti.gov.in/writereaddata/files/document\\_publication/NutritionStrategyBooklet.pdf](https://www.niti.gov.in/writereaddata/files/document_publication/NutritionStrategyBooklet.pdf)

health nutrition day (VHND) etc. One of the findings of this study was the crucial role the counsellors are playing to address the concerns relating to Nutrition. The study also found certain challenges that the counsellors face considering the limited perspective and understanding they hold while carrying out their responsibilities.

The above study brought the University's attention to the fact that there is a scope of skill enhancement and perspective building in the area of Nutrition. Until recent times, the field of nutrition has been linked with ensuring availability of food for good nutrition and provision of medical care to address cases of malnutrition. The findings of the study mentioned above highlighted that there needs to be a multidisciplinary approach to Nutrition to address the concerns. The social and cultural aspects of a community need to be taken into consideration to understand their behavior, attitudes and opinions regarding nutrition. There is a necessity to explore the locally available resources and how nutritional aspects can be addressed through multisectoral solutions. Ample evidence is available which highlights the factors leading to malnutrition and the high-impact interventions for maternal, infant and young child nutrition (MIYCN). The challenges lie in taking these high-impact interventions to scale and with quality.

The discussions of the University with UNICEF representatives over the last one year, have led to initiation of work towards designing a PG Diploma course on multi-disciplinary approaches to nutrition. While the University envisages to take ahead this work towards rolling out this course in 2020, the University proposes to house a State Resource Centre on Nutrition, to support the State government in taking ahead the agenda of Poshan Abhiyaan.

Tezpur University, is also one of the two institutes from the state which have been mapped by Niti Ayog, with the aim to strengthen convergence between various departments like Agriculture, Panchayati Raj, Education, Social Welfare and Health. The ongoing deliberations between Tezpur University and UNICEF Assam on the need to have a multidisciplinary approach to the subject (of Nutrition) was also seen to be resonating with the policy makers. Tezpur University is also keen to take ahead this mandate encouraged by Niti Ayog on setting-up a technical support unit which can act in tandem with the respective State Governments in the near future.

## **State Nutrition and Community Action Resource (NCARe) Centre**

The University proposes to house a State Resource Centre on Nutrition, to support the State government in taking ahead the agenda of Poshan Abhiyaan. The Resource Centre is proposed to be named as “Nutrition and Community Action Resource Centre” and in short can be appropriately known as ‘NCARe Centre’. The Resource Centre would commit to work intensively in the area of nutrition with all vulnerable and marginal groups in the society.

It is envisaged that this centre will complement the state’s efforts under Poshan Abhiyaan, by fostering collaboration, designing technical courses, documentation of good practices, supporting technical trainings, demonstration of models, concurrent monitoring and independent evaluations for nutrition interventions, based on the state’s requirements. The purpose of the Resource Centre can only be fulfilled by working in close collaboration with the State govt to complement the ongoing efforts under Poshan Abhiyan. The Resource Centre will hold regular consultations with the state leadership to understand the state’s needs and accordingly develop annual action plans for the Centre.

The resource centre is planned to be housed at School of Humanities and Social Sciences with Dept of Social Work. Representatives from all relevant schools/departments within TU will together form the core group at the resource centre.

### **The objectives of NCARe Centre will be**

1. To strengthen multi-sectoral collaboration on nutrition
2. To assume the role of a technical support unit to the State Government in the field of Nutrition.
3. To support the state government to take forward the mandate of Poshan Abhiyaan.

### **Organizational Structure**

The Resource Centre will be steered by a core committee with four members with one Head. The identified five members are from the Department of Social Work, Sociology and Molecular Biology and Biotechnology. The Centre would also appoint a knowledge expert on Nutrition and a data management personnel to look into the smooth functioning of the Centre.

Head of NCARe Centre – 1
Core Committee members – 4
Technical subject Expert – 1
Knowledge Management Expert – 1

The Resource Centre would begin by taking up activities at the grassroots to mark the 'Poshan Maah'. The initial activities will be at the village level and the sites will be schools and the Village health and Nutrition Day. The activities will help the centre to build a connect with the community and also contribute in the state level celebrations of Poshan Maah. The Resource Centre will be inaugurated formally during the closing ceremony of the Poshan Maah.

As one of the primary activities of the Resource Centre, the initial months will be spent in building linkages with the State Government. Since, the objective of the Centre is to work along with the State Government, this would be very crucial for establishing its mandate with the Government.

The course on 'Multidisciplinary approaches to Nutrition' (mentioned above) will be offered as a Distance learning course so that it is convenient for the employed people to pursue it. The course will be rolled out in the Autumn semester of 2020. The distance mode of education requires intensive engagement in developing the Self Learning Material which provides the spine for the course. This material will be developed under the aegis of the Resource Centre.

### **Future plans**

The Resource Centre will take up projects related to nutrition in the near future, in consultation with state government and UNICEF Assam. The Centre will carry out capacity building workshops with the people working in the area of Nutrition. The Centre will also thrive towards working on effective and sustainable models of community action in the area of Nutrition. In addition to this, it would engage academia and civil society in the field of Nutrition and carry out policy deliberations to facilitate the state machinery for effective implementation of policies and schemes on Nutrition.

While the University requests for financial support from UNICEF for initiation and rolling-out of activities under the NCARe Centre, the University will continue to build its own capacities to take this ahead in the long-run. In the next few years, the University will make efforts to build mechanisms to build strategic mechanisms, in collaboration with the state government, to ensure continued functioning of the resource centre for years to come.


## BUDGET

Title		State Nutrition and Community Action Resource Centre (NCARe)							
Location		Dept. of Social Work, Tezpur University							
Responsible Officer(s):		Prof. Chandan K Sharma							
Implementing Partner:		Tezpur University							
Project Period:		10th September to 31st December 2019							
								Amount in Indian Rupees*	
Sl. No.	Activities	Unit	Quantity	Unit Cost	Total Budgeted	Partner's Contribution	Total UNICEF Contribution	10 September to 31 October 2019	1 November to 31 December 2019
1	2	3	4	5	6	7	8	9	10
1	Development of Self Learning Material for the PGD course on nutrition								
1.1	Development of written content for six courses by six experts (@60 person days/course *6courses)	Person days	360	3,000	10,80,000		10,80,000		10,80,000
Sub total (1)					10,80,000		10,80,000		10,80,000
2	Consultative meeting at state level - with SPMU Poshan Abhiyaan								
2.1	Travel for 5 Tezpur University (Dept social work and Sociology) representatives (on actuals)	Person Days	10	1,000	10,000		10,000	10,000	-
2.2	Food and accommodation (5persons *1day)	Person Days	5	3,000	15,000		15,000	15,000	-
Sub Total (2)					25,000		25,000	25,000	
3	Poshan Maah field level activities								
3.1	Celebration of Poshan Maah - building community awareness on nutrition at two VHNDs								
3.1.1	Tea and snacks	Persons	100	50	5,000		5,000	5,000	-
3.1.2	Resource Person	Person days	2	1500	3,000		3,000	3,000	-

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Department of Social Work  
Tezpur University



3.1.3	Local Travel for resource persons	Days	2	1000	2,000		2,000	2,000	-
3.2	Workshop in four schools on Nutrition								
3.2.1	Standee	Nos.	1	1000	1,000		1,000	1,000	
3.2.2	Organising workshops in four schools on Nutrition								
3.2.2.1	Resource kits	no of kits	10	100	1,000		1,000	1,000	-
3.2.2.2	Resource Person	person	1	1500	1,500		1,500	1,500	-
3.2.2.3	Local Travel for resource persons	Person days	1	1000	1,000		1,000	1,000	-
3.2.2.4	Tea and snacks for participants	Persons	50	50	2,500		2,500	2,500	-
	sub total for 1 workshop				6,000		6,000	6,000	
	sub total for 4 workshops				24,000		24,000	24,000	-
<b>Sub Total (3)</b>					<b>35,000</b>		<b>35,000</b>	<b>35,000</b>	
4	<b>Setting up of NCARe Centre</b>								
4.1	Honorary for Head - leading the Resource Centre (@5days/month)	Person days	20	5,000	1,00,000		1,00,000	50,000	50,000
4.2	Honorary for two faculty members (dept of social work) (@10days/month)	Person days	80	3,500	2,80,000		2,80,000	1,40,000	1,40,000
4.3	Honorary for Core committee member (2 members X 4days/month for 4months @3500/day) (representatives from other relevant depts)	Person days	32	3,500	1,12,000		1,12,000	56,000	56,000
4.4	Project Officer (Knowledge Management)	Person months	2	40,000	80,000		80,000	40,000	40,000
4.5	Project Officer (Technical)	Person months	2	40,000	80,000		80,000	40,000	40,000
4.6	Communication (telephone, postal and internet costs)	Months	4	1,500	6,000	6,000			-
4.7	Books for the Resource Centre	no of books	100	700	70,000		70,000	70,000	
4.8	Designing of logo	1logo	1	10,000	10,000		10,000	10,000	
4.9	Documentation of Centre initiatives - as newsletter	Months	4	5000	20,000		20,000	10,000	10,000
4.10	Standee/Banner	Nos	2	500	1,000		1,000	1,000	
4.11	Furniture for the Resource Centre								
4.11.1	Chair	Nos.	7	6,000	42,000	42,000			

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4.11.2	Table	Nos.	4	6,300	25,200	25,200			
4.11.3	Notice Board	Nos.	1	5,000	5,000	5,000			
4.11.4	Book Case	Nos.	2	20,134	40,268	40,268			
4.11.5	Desktop	Nos.	2	50,000	1,00,000	1,00,000			
4.12	Maintenance services	Months	4	1,000	4,000	4,000			
4.13	Recruitment of project officers	lumpsum	1	3,000	3,000	3,000			
<b>Sub Total (4)</b>					<b>9,78,468</b>	<b>2,25,468</b>	<b>7,53,000</b>	<b>4,17,000</b>	<b>3,36,000</b>
5	<b>Inauguration of the State Nutrition and Community Action Resource Centre (NCARe Centre) (as part of closing ceremony of Poshan Maah)</b>								
5.1	Standee/Banner	Nos.	5	2000	10,000		10,000	10,000	-
5.2	Felicitations (bouquet, sapling, memento)	Nos.	6	1000	6,000		6,000	6,000	-
5.3	Resource kit	Nos.	25	300	5,000		5,000	5,000	-
5.4	Tea and snacks	Persons	25	200	5,000		5,000	5,000	-
<b>Subtotal (5)</b>					<b>26,000</b>		<b>26,000</b>	<b>26,000</b>	
6	<b>InHouse orientation programme for Core committee members of Resource centre</b>								
6.1	Food	Persons	8	450	3,600		3,600	3,600	-
6.2	Venue	Days	1	3000	3,000	3,000			
6.3	Resource kit	Persons	8	200	1,600		1,600	1,600	-
<b>Sub Total (6)</b>					<b>8,200</b>	<b>3,000</b>	<b>5,200</b>	<b>5,200</b>	
7	<b>Consultative meeting at state level with individual Line Departments in Guwahati (3 meetings)</b>								
7.1	Food and accommodation (2persons *1day)	Person days	2	3,000	6,000		6,000		
7.2	Travel for 2 Tezpur University (Dept social work and Sociology) representatives (on actuals)	Person days	2	2,500	5,000		5,000		
7.3	Resource Kit	Persons	7	300	2,100		2,100		

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	sub total for 1 workshop					13,100		13,100			
Sub total for 3 meetings (7)											
8	Consultative meeting with District level officials at Tezpur University					39,300	-	39,300	13,100	13,100	26,200
8.1	Venue	Days	1		3,000	3,000		3,000		3,000	
8.2	Food - Lunch, tea, snacks	Persons	25		350	8,750		8,750		8,750	
8.3	Training Kit	Persons	25		200	5,000		5,000		5,000	
8.4	Banner	Nos.	1		600	600		600		600	
8.5	Travel cost for participants (on actuals)	Person days	15		1,200	18,000		18,000		18,000	
8.6	Local Travel for Resource centre team (on actuals)	Person Days	4		800	3,200		3,200		3,200	
Sub total (8)						38,550	-	38,550	38,550	38,550	
9	Field monitoring visits for Poshan abhiyaan initiatives (in multiple districts)										
9.1	Travel for Resource centre team (on actuals)	Person Days	6		2000	12,000		12,000		6,000	6,000
9.2	Food - Lunch, tea, snacks	Person Days	6		1000	6,000		6,000		3,000	3,000
Sub Total (9)						18,000		18,000	9,000	9,000	
Grand Total						22,48,518	2,28,468	20,20,050	5,68,850	14,51,200	

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Head  
Department of Social Work  
Tezpur University



जैव प्रौद्योगिकी एवं भू-विवर्तनिक अध्ययन संस्थान (इन्बिग्रा)  
 INSTITUTE OF BIOTECHNOLOGY & GEOTECTONIC STUDIES (INBIGS)  
 (आईएसओ 9001:2008 प्रमाणित) (ISO 9001:2008 Certified)

आयल एण्ड नैचुरल गैस कॉर्पोरेशन लिमिटेड  
 OIL & NATURAL GAS CORPORATION LTD  
 ऐएंडऐऐ बेसिन, सिनामारा, जोरहट-785704, असम

A&AA Basin, Cinnamara, JORHAT-785704, Assam

दूरभाष Ph. No.91-376-2360316

फैक्स Fax: 91-376-2360014

No INB/JRT/Collab.-MEOR/TU/2018-19

Date 23.10.2018

From Head-INBIGS,A&AAB,Jorhat

To Dr. Tapas Medhi, Principal Investigator,MBBT, TU

**Sub:- MEOR collaborative project start and kickoff meeting**

As per resolution of review committee meeting held on 28.12.2017 at ONGC,A&AAB, Jorhat the project proposal titled "Formulation of a MEOR slug for Enhanced Oil Recovery of Upper Assam Basin (MEOR)" submitted by Dr. Tapas Medhi, Principal Investigator, was discussed elaborately and approved by ED-Basin manager, A&AA Basin, Jorhat. The Memorandum of Agreement (MoA) was signed on 07.09.2018 between MBBT, Tezpur University & INBIGS and necessary sanction was obtained on 11.10.2018.

With reference to the mail dated 10.10.2018 from Dr.Medhi(PI), researchers started working on the MEOR collaborative research project with a kickoff meeting taking place in the Conference Hall of Tezpur University premises on 12<sup>th</sup> October,2018.

Throughout the meeting, participants discussed the status of the research area, project goals, and the expectations of the various stakeholders with respect to the project outcome and it was declared the project start date as 12.10.1018 for this MEOR collaborative project.

Participants of the meeting were optimistic that outcome of proposed MEOR project will be an enabling technology as novel process for Enhanced Recovery.

Therefore requested that Principal Investigator (PI) may please take the necessary activities as per MoA to achieve the desired objectives.

*(Handwritten Signature)*  
 (Harendra Singh)  
 23.10.2018  
 General Manager & Head-INBIGS-  
 Project Coordinator



ASSAM

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### MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on the 7<sup>th</sup> day of September, 2018 between Oil and Natural Gas Corporation Limited, a company established under the Laws of India having its registered office at Deendayal Urja Bhavan, 5 Nelson Mandela Marg, Vasant Kunj, New Delhi-110070, and one of its offices named as Institute of Biotechnology and Geo-tectonic Studies (INBIGS), Oil and Natural Gas Corporation Ltd., Cinnamara, Jorhat – 785704 (Assam) (hereinafter referred to as “ONGC, INBIGS-Jorhat” which expression shall unless repugnant to the context include all its representatives, successors, administrators, executors and permitted assignees) of the ONE PART;

AND

Tezpur University, established by an Act of Parliament on 21<sup>st</sup> January 1994 at Napaam, Tezpur-784028, District; Sonitpur, Assam (hereinafter referred to as Tezpur University or TU which expression shall unless repugnant to the context include its representatives, successors, administrators, executors and permitted assignees) of the OTHER PART.

WHEREAS ONGC, INBIGS-Jorhat and TU shall be individually referred to as “Party” and collectively as “Parties”.

WHEREAS ONGC, INBIGS-Jorhat being desirous of Microbial Enhanced Oil Recovery (MEOR) decided to support a project submitted by Molecular Biology and Biotechnology Department (hereinafter referred to as MBBT), Tezpur University for the attainment of the objectives, hereinafter described;

*[Signature]*  
 \_\_\_\_\_

*Tapas Mishra*

WHEREAS this Memorandum of Agreement (hereinafter referred to as MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the **Formulation of a MEOR slug for Enhanced Oil Recovery of Upper Assam Basin (MEOR).**

NOW THE PARTIES HERETO AGREE AS FOLLOWS:-

**1.0. ROLE OF ONGC, INBIGS-Jorhat (Funding agency)**

1.1. To provide funds to the extent of Rs. 40.95/- lakh (Rupees Forty Lakhs and Ninety Five Thousand only) over a period of three years from the date of sanction of the project as per project proposal.

**1.2 MODE OF PAYMENT**

1.2.1. All the payments shall be made to MBBT, TU. MBBT, TU will be responsible for proper custody of equipments/ materials and expenditure on the Project Work as defined in this MoA.

1.2.2. ONGC, INBIGS-Jorhat shall accord approval to make payment in installments on milestone achievement basis. The payment shall be released against completion of milestones mentioned in the proposal. The payment shall be made based on actuals subject to the upper limit mentioned in the budget.

1.2.3. MBBT, TU will be responsible for expenditure incurred on the project and shall maintain separate accounts and records for the project to be implemented under this MoA. All payments will be made by Finance & Accounts Office (FAO), ONGC, Jorhat to MBBT, TU by Electronic clearing system (ECS)/ RTGS/NEFT.

1.2.4. In case MBBT, TU is not in a position to implement or complete the project due to valid reasons accepted by INBIGS, Jorhat, it should, forthwith, refund to FAO, ONGC, Jorhat the total funds received by it or balance, thereof.

1.2.5. On completion of all steps relating to the purchase of capital equipment, the equipment must be entered into asset register to be maintained by MBBT, TU for this project.

1.2.6. MBBT, TU will submit the request for release of milestone based payment, in bill format along with the progress report and the latest statement of expenditure in the prescribed format including Committed Expenditure, duly audited by internal/external auditor, as the case may be.

1.2.7. On completion of the project, MBBT, TU shall submit full details of Assets acquired under the project utilizing INBIGS, Jorhat funds and copies of sanction orders and invoices of assets, along with Final audited Statement

**ROLE OF TEZPUR UNIVERSITY**

Tezpur University will be wholly responsible for the management of the project and successful completion of the project undertaken.

To provide existing facilities as mentioned in the project document. MBBT, Tezpur University shall undertake to carry out the Project Work and related studies, as per the scope of work and deliverables etc. defined in the project proposal within the agreed time frame and budget by employing competent personnel.

*[Signature]*

*[Signature]* Page | 2

- 2.4. To allow the Scientists authorized by ONGC, INBIGS-Jorhat to work with the Research & Development team of the said MEOR Project in all stages of process development and production.
- 2.5. To recruit all scientific and non-scientific staff as sanctioned by ONGC, INBIGS-Jorhat.
- 2.6. To prepare and submit all periodical reports and other documents that would be required by ONGC, INBIGS-Jorhat.
- 2.7. To submit an annual audited statement of expenditure incurred under the project.
- 2.8. To ensure effective utilization of the grant given by ONGC, INBIGS-Jorhat for the purpose for which it was granted and to ensure timely progress of project work.
- 2.9. 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.
- 2.10. Tezpur University is free to take technical/research collaborations with any other university/institutes as per the requirement of the project.

### 3 PROJECT DETAILS

Title of the Project: 'Formulation of a MEOR slug for Enhanced Oil Recovery of Upper Assam Basin (MEOR).'

3.1 Cost of the Project: Rs.40.95 Lakhs

3.2 Full Name of the Principal Investigator (PI): Dr Tapas Medhi, Assistant Professor, MBBT Department, TU

3.3 Full Name of Co- Principal Investigator (Co-PI): Dr Subrata Borgohain Gogoi, Professor, Petroleum Technology Department, Dibrugarh University.

3.4 Name(s) of Project Coordinator from ONGC, INBIGS-Jorhat:

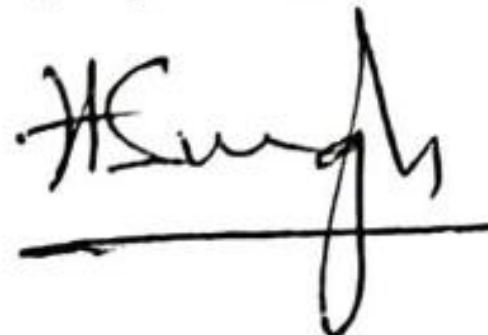
Shri Harendra Singh. General Manager & Head-INBIGS, ONGC, Jorhat

Dr. B. C. Dutta, Chief Chemist, INBIGS, ONGC, Jorhat

3.5 Project Duration: Duration of project shall be three years from the date the Project has been sanctioned by ONGC, INBIGS-Jorhat.

### 3.6 OBJECTIVE OF THE PROJECT.

- Developing a high temperature (upto 120<sup>0</sup>C) – high pressure(250 kg/cm<sup>2</sup>) tolerance microbial slug comprising of bio surfactants and biopolymers for MEOR application.
- A detail rheological study for determining the displacement efficiency of the reservoir crude oil.
- A detail IFT study for determining the sweep efficiency of the reservoir crude oil.
- Microscopic study for understanding the plugging phenomenon in the thief zones of the reservoir by bio polymers.





Page

UNICEF for every child

UNICEF Office for Assam  
1st Floor, 3rd Cross, Tezpur Bazar, Tezpur, Assam 784 028  
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AFO/CDN/2018/222  
25<sup>th</sup> Oct 2018

Ms. Namami Sharma  
Asst Prof, Department of Social Work,  
Tezpur University,  
Napam, Tezpur 784 028

Dear Ms. Namami,

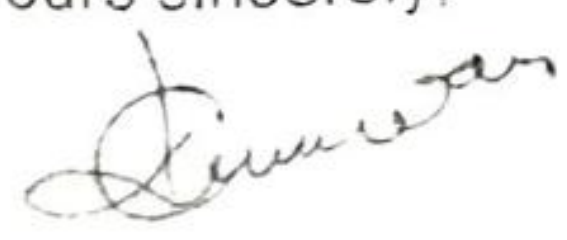
Approval to the proposal on 'Development of design and structure for course on the interdisciplinary approaches to nutrition, at Tezpur University'

This has reference to your letter dated 24<sup>th</sup> Aug 2018, forwarding the proposal on 'Development of design and structure for course on the interdisciplinary approaches to nutrition, at Tezpur University'.

We have reviewed the proposal and we confirm our support to a maximum of Rs.8,37,000/- (Rs. Eight Lakh Thirty Thousand only) for the period 1<sup>st</sup> Nov to 31<sup>st</sup> Dec 2018. The detailed budget is enclosed herewith.

We request you to forward the duly completed FACE form in order to release the advance funds for the activity. On completion of the activity, we look forward to receiving duly filled FACE form, detailed statement of expenditure showing approved budget vs actual expenditure, vouchers/receipt numbers to enable us to liquidate the funds advanced and release the balance amount, if any, up to the approved budgetary ceiling.

We look forward to strengthening UNICEF's partnership with Department of Social Work, Tezpur University for effective implementation of programs for women and child welfare in Assam.

With best wishes,  
Yours sincerely,  


Ms. Chhaya Kunwar  
OIC, UNICEF Office for Assam



Education, Audiovisual and Culture Executive Agency

Erasmus+ : Higher Education - International Capacity Building

Brussels, 07/08/2018  
ARES(2018)

Dr Stavros Zografakis  
Rectorate  
AGRICULTURAL UNIVERSITY OF  
ATHENS  
Iera Odos 75  
EL 11855 ATHENS

*vr1@aua.gr*  
*avoloud@aua.gr*

**Subject:** Erasmus+ Capacity Building in Higher Education - Call for Proposals  
EAC/A05/2017

**Reference:** Your application 598797-EPP-1-2018-1-EL-EPPKA2-CBHE-JP  
Strengthening education, research and innovation for climate smart  
crops in India

Dear Dr Zografakis,

You have submitted an application to the Erasmus+ programme, 2018 call for proposals for the action specified above. The call for proposals closed on 8/02/2018. The Education, Audiovisual and Culture Executive Agency (EACEA) received 874 eligible applications for this call.

I am writing to inform you about the selection decision taken by the Head of Department of the Agency, acting in her capacity as authorising officer, based on the recommendations of an Evaluation Committee assisted by external experts.

The selection decision is based on the quality of the application, its relative position in comparison to the other applications submitted and the budget available. Applications were assessed on a scale from 0 to 100 and were ranked by Region according to merit. In addition, and in line with the provision of the Programme Guide regarding the definition of the list of projects recommended for funding, the Evaluation Committee has also taken into account the results of the consultation with the EU Delegations in the Partner Countries. Lastly, the selection decision also took into account the geographical balance within a region in terms of the number of projects per country (within the limits of the available budget), the need to ensure that the overall results of the selection guarantees a sufficient coverage of the priorities of the Action and the respect of the condition that an applicant organisation cannot receive more than three grants under this Call.

I am pleased to inform you that your application has been selected for EU co-funding.

The table below provides you with an indication where your proposal was situated. Your application was considered as **Group I**.

Education, Audiovisual and Culture Executive Agency  
Avenue du Bourget 1 – 1049 Brussels - Belgium  
Office J59 4/33, Telephone: direct line +32 229 726 39.  
<http://eacea.ec.europa.eu>  
E-mail: [EACEA-EPLUS-CBHE@ec.europa.eu](mailto:EACEA-EPLUS-CBHE@ec.europa.eu)

15

Groups		Number (%)
I	Applications of very good quality (score higher than 75 points out of 100)	118 applications (13,5 %)
II	Applications of good quality (score between 60 and 75 points out of 100)	554 applications (63,5 %)
III	Applications of weak quality (score less than 60 points)	202 applications (23 %)

For your information, out of the 874 applications eligible 147 have been selected for funding and 23 have been placed on a reserve list.

The list of all selected projects and success rates by Regions will be published on the website of the Executive Agency, when all applicants have been notified about the selection results: ([http://eacea.ec.europa.eu/erasmus-plus/selection-results\\_en](http://eacea.ec.europa.eu/erasmus-plus/selection-results_en)).

Attached to this letter (Annex I), you will find an Evaluation report by the Evaluation Committee.

The maximum amount of funding to be awarded to your project is **840.302,25 €**. Please note that your budget has been revised following assessment and financial analysis of your budget by the Evaluation Committee. You will find attached to this letter an explanation of the changes; you are requested to confirm in writing (by signing the document) that you are able to implement your project and to achieve all its objectives and outcomes, as described in your application, with the amended budget. The document must be signed by the legal representative of the applicant organisation.

The process of awarding a grant can only be finalised once the Executive Agency has received and analysed the documents as requested in the list of documents to be submitted (see appendix).

The documentation specified must be submitted within a period of 10 working days from the date of receipt of this letter. Should the period for submission fall within the holiday period of the Applicant Organisation, the deadline will be extended until the Applicant Organisation is open. The finalisation of the Grant Agreements can only be done once all the necessary documents have been received and processed by the Agency. Therefore, the requested information needs to be received by the Agency no later than 14 September 2018.


The information specified in the list of documents to be submitted should be sent to the following address by email:

Eric Heng Vong  
Education, Audiovisual and Culture Executive Agency, Unit A4  
[eacea-eplus-cbhe-projects@ec.europa.eu](mailto:eacea-eplus-cbhe-projects@ec.europa.eu)

This letter does not represent a financial or legal commitment of the Executive Agency. The offer of an award is confirmed only when the legal representative of the Executive Agency signs the Grant Agreement associated with this application.

Please do not hesitate to contact us should you have any further questions.

Yours sincerely,

  
Ralf RAIDERS  
Head of Unit



# Erasmus+

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18

## 8.2 Priorities

The field of education that will benefit from the activities / outcomes

Higher education

## 8.3 Dates and Languages

### 8.3.1 Dates and duration of the project

Start date	<u>15/11/2018</u>	End date	<u>14/11/2021</u>	Duration (months)	<u>36 months</u>
------------	-------------------	----------	-------------------	-------------------	------------------

### 8.3.2 Language for Grant Agreement and Communication with the Agency

English



# Erasmus+

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19

## C.5 Special mobility strand

Not Applicable

## C.6 Grant requested

1. Staff costs	€307 372,00	Cannot exceed 40% of total
2. Travel costs and exceptional travel costs	€177 155,00	
3. Costs of stay	€276 840,00	
4. Equipment	€92 154,00	Cannot exceed 30% of total
5. Subcontracting	€9 499,00	Cannot exceed 10% of total
<b>TOTAL</b>	<b>€863 020,00</b>	Must be higher than or equal to 500.000€ and less than or equal to 1.000.000 €

## Distribution of grant by organisation

	999872218	AGRICULTURAL UNIVERSITY O	€147 244,00
	999995796	UNIVERSITA DEGLI STUDI DI	€114 455,00
	999817801	ACADEMY OF ATHENS	€73 275,00
	999866689	UNIVERSITA POLITECNICA DE	€97 395,00
	915482800	Assam Agricultural Univer	€112 643,75
	968872085	TEZPUR UNIVERSITY	€105 428,75
	998747891	INTERNATIONAL CROPS RESEA	€103 566,75

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Test your connection

The connection test succeeded.

Serial No... 5011  
Date of Receipt... 20/2/19  
File No...  
Received by... Dean, R/D

INTER OFFICE MEMO

From	Dean, R&D Tezpur University	To	Dr. Nirmali Gogoi, Asst. Professor Dept. of Environmental Science, Tezpur University
Ref	DoRD/Misc./10/1352	Ref:	AUA/AdaptNET/TU/DOE/1305
Date	18/02/2019	Date	13/02/2019

This has reference to your Inter Office Memo stated above regarding registration of the collaborative project "Strengthening education, research and innovation for climate smart crops in India". In this regard, you are requested to kindly go through the following points and take necessary action to clarify/provide the same, for further needful.

1. Name of Principal Investigator / Co Principal Investigator, total grant for Tezpur University, name of the funding agency, duration of the project with start date, collaborating institutes etc. are not clear. Please provide documents in support of them.
2. Copy of sanction order from funding agency.
3. Copy of project proposal submitted to funding agency.

This may please be noted that as per TU Guidelines (copy enclosed), the Principal Investigator is to submit the copy of the sanction letter and a copy of the approved project proposal to the Dean, Research and Development.

*[Signature]*  
(P. Deb)  
Dean, R&D (i/c)  
Encl. As stated.

Kindly note the following,

1. Name of PI : Prof. Debendra Chandra Baruah, Dept of Energy, TU
2. Name of Co-PI : Dr. Nirmali Gogoi, Dept. of Environmental Sciences, TU  
Dr. Eshan Kalita, Dept of MBBT, TU
3. Total Grant for TU : €105428.75 (EUROS) [Flag A]
4. Duration of project : 3 years (15-11-2018) [Flag B]
5. Collaborating Institutes: Enclosed in Flag C
6. Sanction order from funding agency (Flag D)
7. Project Proposal (Flag B)
8. Funding Agency : Erasmus + Capacity Building in Higher Education

Regards,

*[Signature]*  
N.S. Islam  
20/2/2019

*[Signature]*  
Gogoi. (Co-PI)  
19/02/2019

D C Baruah, B.E., M. Tech., PhD, FIE  
 Professor, Department of Energy  
 Tezpur University

Phone: +91 94350 27 5307 (Work)  
 +91 94350 27 3677 (Home)  
 +91 94350 08563  
 Email: baruahd@tezu.ernet.in

Pamoja Cleantech AB  
 Villa Bellona  
 Universitetsvägen 8  
 114 18 Stockholm (Sweden)  
 Sweden: +46 765 829386  
 Uganda: +256 775 229136  
 India: +91 735 8583883

*VC,*  
 Acceptance of project from  
 as in (B) may kindly  
 considered but original

F/6113  
 26/11/18

Approved  
 26-11-2018

Ref. Invoice for Expenses under Biomass Poly generation Project, Pamoja Cleantech AB, Villa Bellona, Universitetsvägen 8, 114 18 Stockholm (Sweden)

**Invoice for INR 67700 for Study on Biochar: Experiments & Analysis**

Please could you arrange immediate payment of the following for Biomass Poly generation Project in Tezpur University, India'

Head	Amount (INR)
1. Chemical analysis	40700
2. Travel	5000
3. Fields experiments	22000
<b>Total budget for Tezpur University to be provided by: Pamoja Cleantech AB, Villa Bellona, Universitetsvägen 8, 114 18 Stockholm (Sweden)</b>	<b>67700</b>

(B)

Bank details for payment are as follows:

Name of the account holder: REGISTRAR, TEZPUR UNIVERSITY  
 Name of receiving bank: State Bank of India  
 Address of receiving bank: Lake Road, Tezpur, Sonitpur-784002  
 Account Number: 30448821505  
 SWIFT/BIC account number: SBININBB159  
 RTGS/IFS Code of the Branch: SBIN0000195  
 MICR Code: 784002002

Please feel free to contact me, if you need any other details.

**URGENT**  
 Yours Sincerely,

(D C Baruah)

*✓*  
 D.C. Baruah  
 Registrar TU  
 27/11/18

Pamoja Cleantech AB, one of the collaborative partners (we have MoU) has agreed to provide us ₹ 67,700/- for our ongoing research work (details attached). Requested to (A) allow us to receive the amount (B) to verify the account details.

*(A)*  
 update form issued  
 26/11/18

(D.C. Baruah) 26/11/18

Collaborative Research work : D. Hybrid Bioenergy :  
by product utilization

Smart Hybrid Energy System


Budget regarding Study on Biochar:

No. of samples 6

for heat, electricity and cup nutrition  
(SEA/ICM/PC/RMG/TU collaborative)  
based

-	Particulars	Rate in Rs. (per sample per element)	Amount in Rs.	Remarks
<b>A. Chemical analysis</b>				
1	Chemicals for sample preparation : HCL, H2SO4, HNO3, Chloroform, K2CR2O7, K2SO4, H3PO4, FAS, Titon X100	-	6500	Brand: Merek chemicals
2	AAS (K, Pb, Cu, Co, Mg, Na, Mn),	25	1050	Facility available in TU
3	ICP (Ca, S, P, Co, Cr, Zn, Ni, Cd)	25	1200	
4	SEM	200	1200	
5	EDX	200	1200	
6	Solid NMR	3000	18000	Out source
7	Surface area	1000	6000	Facility available in TU
8	FTIR	25	150	
9	Ultimate analysis (C,H,N,S,O)	900	5400	Out source
Total (A)			40700	
<b>B. Travel</b>				
10	Sample carrying/Handling from Tea estates, wetlands	-	5000	Transportation during sample collection
Total (B)			5000	
<b>C. Field Experiments</b>				
11	Preparation of Biochar conventionally	-	3000	
12	GHGs estimation in both crops (N <sub>2</sub> O, CH <sub>4</sub> , CO <sub>2</sub> )			
	1) Gas trapping box (Fabrication and material charges	-	10000	Facility available at TU
	2) Laborers for field preparation, purchasing farm inputs		4000	
	3) Refilling of Gas cylinders (H, N) to run GC		8000	
Total (C)			22000	
Grand Total (A+B+C)			67700	

Gogoi  
(Nirmali Gogoi) Guide  
26/11/18

  
(D. C. Baruah) PI  
26/11/18

Serial No... 29... 29 ... ..  
Date of Receipt... 24/12/18...  
File No... D. Ch. by R.T.D. ... ..  
Received by ... ..

## MEMORANDUM OF UNDERSTANDING

Effective Date: 01<sup>st</sup> December, 2017

### PARTIES

**Tezpur University (hereafter "TU")**  
based in Tezpur, Assam India

AND

**Rural Micro Generation Pvt LTD (hereafter "RMG")**  
based in New Delhi, India

AND

**Pamoja Cleantech AB (hereafter "PC")**  
based in Stockholm, Sweden

  
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Registrar  
Tezpur University

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## PURPOSE

- A. The Agreement is made between the Parties who are sharing a joint aim to provide clean energy technologies to replace fossil fuel driven energy technology in a cost-efficient manner.
- B. The purpose of this Agreement is to make provisions for the future collaboration between Parties to introduce clean energy technology and smart grid management system at the Tezpur University Campus, Tezpur, India.

## BACKGROUND

Pamoja Cleantech AB (PC) has been awarded financing from the Swedish Energy Agency to increase collaboration and technology transfer between Indian and Swedish businesses and research parties with a special focus on micro-grid innovation and renewable energy technology. PC will introduce Tezpur University (TU) to Royal Institute of Technology in Stockholm (KTH), Sweden, which may open up further opportunities for international research collaboration among the Parties.

TU wishes to reduce its annual energy costs whilst still maintaining or improving the level of energy access and availability at the University Campus. TU with the leadership of the Department of Energy, is therefore seeking to accelerate the rate of introduction of renewable energy generation equipment, energy management and new equipment designed to improve the energy efficiency of TUs power distribution and grid infrastructure. TU is, however, constrained by a need to avoid staff increases and capital investment and is therefore willing to set up this Energy Savings Agreement between the Parties.

Thus, hereby Parties agree on the introduction of a holistic energy system combining solar and biomass energies in a Smart hybrid system that will use Swedish State of the Art technology for Smart Grid Management. A high level of innovation will be applied with demand response, central production of hot water, Second generation Biomass gasification system for power generation and production of biochar. The Micro-grid will also be a unique learning centre for the university students and research professionals, a training tool for power utilities, and while at the same time generating power for local loads at the University campus.

## 1. PRINCIPLES GOVERNING THE PARTIES

The parties have agreed to move forward together on the basis of the following guiding principles:

- (a) Commitment to sustainable approach to energy services;
- (b) Mutual respect for each other's complementary strengths;
- (c) Commitment to responsive, flexible and transparent manner of developing and carrying out joint activities.

  
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Tezpur University

## 2. AREAS OF COLLABORATION

Through this Agreement, Parties agree to make a mutual commitment, which simultaneously aims at joint Research and Energy Saving measure for the benefit of Tezpur University. However, all provisions require a financial approval by Swedish Energy Agency and in case that cannot be achieved, then all parties can terminate the Agreement in accordance with Clause 8.3.

- (a) Collaborating on research activities that aim to collect, analyse and categorize energy data to provide input for energy management system.
- (b) Collaborating on identification of joint R&D opportunities that may benefit Renewable Energy Technology innovation.
- (c) Collaborating on research that aims to test and certify different biomass and waste feedstock that may be used in biomass gasification and pyrolysis systems for production of electricity, heat and/or biochar.
- (d) Collaborating on research that aim at understanding different use of energy crops and plantation such as agroforestry in Assam, India and how these systems can be designed to provide biomass for energy generation in a sustainable manner.
- (e) Seek joint opportunities for financing of research activities and promote joint collaborations between TU and Universities in Sweden for research collaboration.
- (f) Create a unique training facility of its kind in India for professional training to engineers in power utilities and other micro-grid developers.
- (g) Use the micro-grid in capacity building activities at TU and potentially as a demonstration plant open to the public to increase awareness of clean energy solutions.

## 3. ROLES AND RESPONSABILITIES

### 3.1. ROLE OF TEZPUR UNIVERSITY

TU has identified a number of buildings and functions at the University Campus that will off-take power and heat for the project. Provided that financial approval from Swedish Energy Agency is granted for the project. Tezpur University will:

- (a) aim to, before end of January 2018, sign a separate PPA with a solar developer for a 1000 kWp solar photovoltaic power plant that will initiate installation in 2018 and be fully installed and in operation before end of 2019; and;
- (b) aim to, before end of January 2018, sign an Energy Savings Agreement with PC/RMG according to the preliminary structure explained in Appendix 1, and;

  
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Tezpur University

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- (c) aim to, before May 2018, sign a research collaboration with PC in the field of sustainable biomass production and organic agriculture, and;
- (d) aim to, before end of October 2018, sign a research collaboration with KTH, Sweden for the development of educational modules on design, construction, and maintenance of micro-grids and on operation and monitoring of micro-grids, and;
- (e) provide facilities or land for the installation of renewable energy technologies on peppercorn rent lease term for the term of this Agreement, and;
- (f) provide energy data or make available historical data or possibilities to install metering technology to measure and monitor energy usage at the Tezpur University Campus, and;
- (g) facilitate and co-ordinate the project implementation and allow for training and capacity building activities within its premises on a case by case basis which shall be agreed upon among Parties.

### 3.2. ROLE OF PAMOJA CLEANTECH AB

Reference to "Operative Partners" and/or "Contractor" in this Agreement refers to a Special Purpose Vehicle (SPV) that is jointly owned and operated by RMG and PC, or if such company has not been setup, the reference shall refer to both RMG and PC jointly. PC will be in charge of technology integration of Swedish and Indian renewable energy technology and implementation of monitoring and management systems. Provided that financial approval from Swedish Energy Agency is granted for the project, PC will:

- (a) design, procure, install, commission and secure operations for the Energy Management System for the local grid and the Renewable Energy Generation Equipment including all technology listed in Appendix 2, and;
- (b) provide Technical training and Capacity building for TU on the biomass gasification system operation & maintenance and the Grid Management System, and;
- (c) support on the development of a supply chain of feedstock for the biomass gasification systems to be installed at TU.
- (d) develop educational modules based on the installed Micro Grid equipment in collaboration with TU and KTH, Sweden.

### 3.3. ROLE OF RURAL MICRO GENERATION Pvt Ltd

Provided that financial approval from Swedish Energy Agency is granted for the project, RMG will:

- (a) Contributing with technical expertise and will act as the local facilitator in India, and;
- (b) Support PC with its activities to ensure a successful implementation of the planned activities and installation of technology listed in Appendix 2, and;

  
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 तेजपुर विश्वविद्यालय  
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 Tezpur University

- (c) Design, implement and operate a local feed-back supply for biomass gasification and biogas based power generation at TU, and;
- (d) Share with Parties periodically about the operational & other challenges, and any lessons learned while facing those challenges.

#### 4. SAVINGS TARGET AND PAY-BACK OF INVESTMENT

- 4.1 A detailed list of energy savings measures and equipment that shall be installed in order to obtain ongoing cost and energy savings is provided in Appendix 2. The Parties have detailed workout on the technical concept that aim to reduce the use of four 500kVA Diesel gensets used as a backup power source on the campus. For the finalization of the technical plan, TU has supplied and in case of any missing data TU will supply all available information in regard to - hours of operation, energy consumption and costs, service levels, building descriptions and building usage, existing energy equipment, or any other information that may still be needed for ensuring accurate planning efforts towards the implementation of the following equipment at the University Campus. The proposals detailed out in Appendix 2 are the result of the Initial Energy Audit.
- 4.2 A Preliminary Energy Audit has established the preliminary understanding of the opportunities for cost effective improvements at the project site. The Parties have agreed on preliminary saving targets on the specific energy tariffs provided by TU. TU wishes to take advantage of the fundamental principle of energy shared savings contracting, namely, that Contractor invests in new equipment in order to achieve energy savings sufficient to repay the equipment investment, reward the contractor for his risk-taking and the use of his facilities and allow TU a significant energy cost reduction right from the time of installation of the new equipment. The energy savings shall benefit the TU so that it can cut cost of its energy expenditure with a certain percentage of the baseline data which shall be established for the Two-year period i.e. January 2016 - December 2017. The exact savings target shall be defined in the Energy Savings Agreement in January 2018. The Operative Partners consisting of PC and RMG will operate the project jointly. A separate investment teaming agreement has been signed among the Operative Partners that stipulates the investment and profit sharing among the Operative Partners in order to recover and payback the initial capital expenditure investment.
- 4.3 The Energy Savings are calculated as per Appendix 1 and shall be based on input figures gained from TU and energy audits that have been made at the Campus.
- 4.4 Parties will remain owners of the assets that they contribute with towards the installation until at least the end of the SEA funded project (June 2020).

  
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The Operative Partners will create a Specific Purpose Vehicle (SPV) for the project.

## 5. MONITORING OF ENERGY CONSUMPTION & ESTABLISHING BASELINE FOR THE ENERGY SHARED SAVINGS CONTRACT

TU anticipates that the installation of the new equipment that will provide means of improving its monitoring of energy consumption and costs and invites the Contractor to provide monthly reports on energy consumption and saving in relation to Baseline Consumption figures established by the end of January 2018.

## 6. DISPUTE RESOLUTION

6.1 This agreement shall be governed by and construed in accordance with Indian Law.

6.2 Disputes that arise out of or in relation to this Agreement shall be sought resolved amicably between the disputing parties. If the parties being in dispute fail to resolve the dispute, the dispute shall be referred to arbitration at the Indian Chamber of Commerce, in New Delhi, India.

## 7. CONFIDENTIALITY

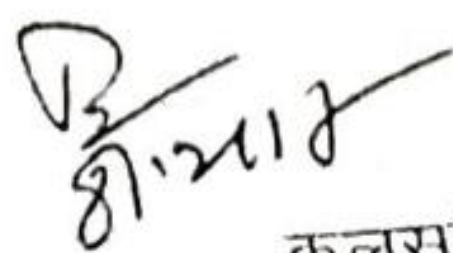
The Parties agree that they shall take reasonable measures to protect the confidentiality of each of the Parties and avoid disclosure or use of either party's confidential information in order to prevent it from falling into the public domain or the possession of persons other than those persons authorized under this MoU to have any such Confidential Information. Confidential Information should be clearly marked as Confidential.

## 8. DURATION OF AGREEMENT

8.1 This Agreement commences on the date of its ratification by signature by representatives of the three parties and shall remain in force for Twenty years.

8.2 Any alteration of the Memorandum shall be agreed upon jointly by the three parties and submitted in accordance with the same procedure as the original Agreement and shall be expressed in writing.

8.3 This agreement can be terminated by either Party with One month written notice, if the Swedish Energy Agency does not grant financial approval for the implementation of any of the technologies or activities mentioned in this Agreement. In case of termination of this agreement, all Parties shall bear their own costs and expenses for preparation and/or implementation of this Agreement and no party shall have any liability whatsoever for the loss of business, for occurred cost or expenses in regard to this Agreement in any



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other capacity in relation to proposed collaboration.

8.4 PC shall keep all Parties reasonably informed of the communication with the Swedish Energy Agency in regard to financial approval of planned activities.

## 9. COMMUNICATION AND EXCHANGE OF INFORMATION

There will be regular communications between the Parties. The contact persons are, unless otherwise agreed:

**From Tezpur University:**

Prof D C Baruah

+91-3712-275307

baruahd@tezu.ernet.in

**From Rural Micro Generation Pvt Ltd:**

Mr Subroto Chatterjee

+44 79 2121 3033

subroto.chatterjee@ruralmicrogeneration.com

**From Pamoja Cleantech AB, Sweden:**

Mr Olof Hallström

+46 720338895

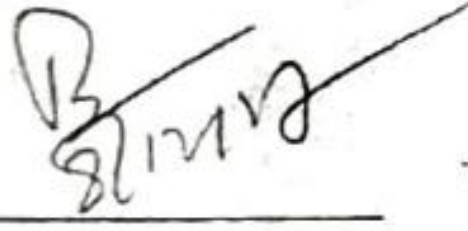
olof@pamojacleantech.com

Any communication between the parties to this agreement shall be in the English language.

SIGNED: by the duly authorized representatives of the three Parties

Signed for and on behalf  
of Tezpur University

Signed for and on behalf of Rural  
Micro Generation Pvt Ltd.



Name: Dr. Biren Das  
Position: Registrar, Tezpur University  
Date:

Name: Subroto Chatterjee  
Position: CEO  
Date:

Signed for and on behalf of Pamoja Cleantech



Director, Peik Stenlund  
Date: 4 December 2017

## Appendix 1

The preliminary proposal is to base the tariffs in the Energy Savings Agreement on the costs of alternative energy sources (reference rates). The reference rates are based on a campus with 2MW grid connection, 1MWp grid-tie, roof-top solar PV plant, 4x500kVA diesel back-up generators, and LPG for cooking and partial use of solar hot water systems for hot water generation. The production costs for solar power, grid power, diesel power, and LPG are inherently different. The reference rates will be re-negotiated every year based on the average alternative rates during the previous year. By measuring the instantaneous transfer of power at the transformers in real time, three distinctly different scenarios are possible:

- A. National grid is intact, and power is imported from the national grid
- B. National grid is intact, and power is exported to the national grid
- C. National grid is disconnected

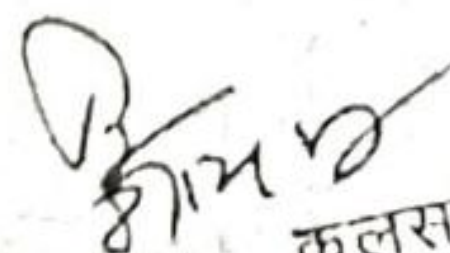
The corresponding alternative costs for each scenario are:

- A. Current rate for grid power (Present Rate of DISCOM: Rs. 7.05/kWh)
- B. Current rate for solar power (PPA Rate with Solar Developer: Rs. 2.42/kWh)
- C. Current rate for diesel power (roughly 60Rs/L)

The reference rate for LPG is the same for all scenarios, and will be based on the current rate of LPG bottles. The proposed rates for sales of power from the E4T Micro Grid platform for each scenario are:

- A. 95% of grid rate
- B. 100% of solar rate (Rate at which Tezpur University signed the PPA with solar developer)
- C. 80% of diesel rate (calculated from actual price of diesel and actual diesel consumption)

In addition, two types of energy savings systems will also be included on the platform: the first being a thermal grid for providing hot water, heating and producer gas from the CHP systems and gasifiers, and the second being a wireless demand response system called LuminGo using Load Management Units (LMU) that can toggle secondary priority loads on and off depending on the availability of grid/solar power. The heat from the CHP will be used for water heating. The hot water will be supplied to both toilets/bathrooms of the hostels and kitchens. The hot water supplied to the toilets/bathrooms will supplement the existing solar hot water system and supplied to the hostels where there is no solar hot water provisions. The amount of heat provided will be measured at the point of delivery to each hostel. Producer gas from the biomass gasifiers can be used in the kitchens in specially designed producer gas cookers to replace LPG cookers. Since measuring the flow of hot producer gas is difficult, the sale of producer gas will instead be based on a daily tariff per number of cookers, which will be further negotiated and agreed upon in the

  
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Registrar

Energy Savings Agreement. The LMUs will initially only shut off deferrable loads to save diesel, and will thus use the diesel rate as reference. Each individual LMU measures voltage and current in real time, and will calculate the saved power by multiplying the time that the load is off by the product of the average voltage and current in the hour before being shut off. The savings from the LuminGo system will be verified with the actual consumption of diesel at the end of each quarter year. Our proposed rates for energy savings are:

- (a) 50% of diesel rate for power saved by the LMUs.
- (b) The rate of heat will be negotiated and defined in the Energy Savings Agreement
- (c) The rate for producer gas will be based on a daily tariff per number of cookers, which will be defined in the Energy Savings Agreement

## Appendix 2

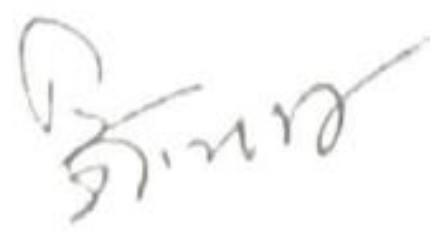
The equipment included in the proposed E4T Micro Grid platform to be installed at Tezpur University campus in two separate phases are:

### First phase (2018)

- 14 x 5kVA biomass fired Stirling CHP engines
- 140kVA multimode inverter system
- 90kWh advanced Li-ion battery system
- LuminGo demand response system with minimum 50 LMUs
- 200kWth biomass gasifier for co-production of biochar
- Two-way online power meter to measure import/export of power to micro grid

### Second phase (2019)

- 14 x 5kVA biomass fired Stirling CHP engines (possibly upgrade to 10kVA engine generators)
- 140-240kVA multimode inverter system
- 90kWh advanced Li-ion battery system
- LuminGo demand response system with minimum 50 LMUs
- 200-400kWth biomass gasifier for co-production of biochar
- Two-way online power meter to measure import/export of power to micro grid



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Registrar  
Tezpur University

AFO/ISP/2018/267  
5<sup>th</sup> December 2018

Dr Biren Das, Registrar  
Tezpur University,  
Napaam, Tezpur, Assam

Dear Dr Das,

Support towards 'Vulnerability analysis of Marginalised Communities in Riverine Islands of Assam' to Sociology department, Tezpur University for the term 10<sup>th</sup> December 2018 – 10<sup>th</sup> March 2019

This has reference to your letter Ref No. FTU/SOC/UNICEF/18-09 dated 4<sup>th</sup> December 2018 forwarding a proposal outlining the activities and budget requirements for Vulnerability analysis of Marginalised Communities in Riverine Islands of Assam planned in collaboration with UNICEF for the period 10<sup>th</sup> December 2018 – 10<sup>th</sup> March 2019

We have reviewed the proposal and confirm our support up to a maximum of Rs 5,31,628/- only (Rs Five lakhs thirty one thousand six hundred and twenty eight only) as follows

No	Items	Total budgeted	Partner's contribution	Total UNICEF Contribution
10	Vulnerability analysis of Marginalised Communities in Riverine Islands of Assam	5,31,628		5,31,628
	<b>Total</b>	<b>5,31,628</b>	<b>-</b>	<b>5,31,628</b>

We would request you to kindly provide us a FACE form for advance fund request and subsequently duly completed FACE Form, itemized statement of expenditure and an activity report for liquidation of the amount up to the approved budgetary ceiling

On completion of the activities, we would request you to kindly provide us duly completed FACE Form, itemized statement of expenditure and an activity report for reimbursement of the amount up to the approved budgetary ceiling

Please take note of the following requirements with regard to management of funds released by UNICEF

- 1 Funds should be utilized only for the purpose for which they are released as per approved budget
- 2 Advance cash assistance released has to be settled within four weeks of completion of the activities and in any case not later than 3 months from the date of release by submitting the following

- Statement of Expenditure (SOE) duly signed and stamped by the concerned official in UNICEF prescribed format
- Funding Authorization and Certification of Expenditure (FACE) form should be completed and submitted along with the Statement of Expenditure

Please note that as per financial rules, UNICEF cannot release any further funds to recipient accounts outstanding for more than 6 months

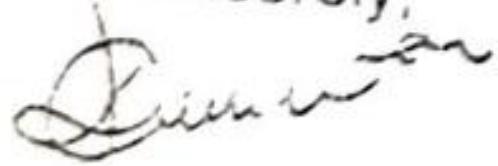
- 3 If your department is not in a position to utilize UNICEF's cash assistance within a period of 6 months from the date of release of funds, the unutilized cash assistance should be refunded to UNICEF in the form of a cheque payable to UNICEF
- 4 Unutilized funds cannot be retained by you or spent for any other activity without prior written approval of UNICEF
- 5 Please note that deviation in any budget line items should not exceed 10% Deviations beyond that, if any, should be agreed in writing by UNICEF prior to expenditure and provided that total approved budget is not exceeded
- 6 A brief report on the activities and list of participants (trainings) should be submitted

Please be informed that our financial regulations require that all relevant vouchers be stamped "PAID CHARGED TO UNICEF ACCOUNT" and are retained in your files for four years

We would like to inform you that periodic on-site reviews in the form of spot-checks of the cash will be conducted by UNICEF staff and they may be conducted and documented on a routine basis. This will involve review of books of accounts, vouchers, bills and other related financial documents. Monitoring visits will also be conducted from time to time during the implementation of the activities by Programme Officers from UNICEF and a monitoring findings report will be submitted to UNICEF by the visiting officers

With best wishes,

Yours sincerely,



Chhaya Kunwar  
Officer-in-charge(OIC)  
UNICEF, Office for Assam