



मेघालय MEGHALAYA

01AA 918372

## CONSULTANCY SERVICE AGREEMENT

MEMORANDUM OF AGREEMENT MADE THIS Date 10.10.2014 between the Meghalaya Basin Development Authority (MBDA) through its Deputy Chief Executive Officer (hereinafter called the FIRST PARTY or Client) and Director, NBSS&LUP (ICAR), Shankarnagar, Nagpur, 440033, and having its Regional Centre at Jorhat (hereinafter called the SECOND PARTY), which expression shall unless it be repugnant to subject or context thereof shall include its successors, assigns, associates, subsidiaries and funds under its management of the Second Party.

WHEREAS THE FIRST PARTY desires to engage the services of the Second Party on the terms and conditions hereinafter set forth, and:

WHEREAS the Second Party is ready and willing to accept this engagement of services with THE FIRST PARTY on the said terms and conditions,

NOW, THEREFORE, the parties hereby agree as follows:

#### 1. Nature of services

The Second Party will work closely with THE FIRST PARTY to carry out "Soil Survey and Land Resource Inventory of Ri-Bhoi district Meghalaya on 1:10,000 scale for Farm Planning" to meet the objectives of the new project on Ri-Bhoi district in Meghalaya. The Second Party will also fulfill duties described in the Terms of



Reference attached hereto as at **Annexure-I** read with its written proposal and presentation to the First Party.

## **2. Duration of Agreement**

This agreement shall commence on the October, 2014 and shall expire upon satisfactory completion of the services described above, but not later than the Sept. 2016, unless sooner terminated, in accordance with the Terms of this Agreement.

## **3. Engagement of Staff for the Studies**

That NBSS&LUP, Regional Centre, Jorhat will engage the following Experts for or the study

- a) Mr. Roomesh Kumar Jena, Scientist - Expert in Soil Survey, classification, correlation, Land evaluation and land use planning.
- b) Dr. Siladitya Bandopadhyay, Scientist - Expert in Soil Survey, classification, correlation, soil analysis, interpretation of data and land use planning.
- c) Dr. Shelton Padua, Scientist - Expert in satellite image interpretation, landform analysis, preparation of soil and thematic maps.
- d) Dr. S. Ramachandran, Scientist - Expert in Soil Survey, classification, correlation, Land evaluation and land use planning.
- e) Dr. T.H.Das, Principal Scientist & Head, Regional Centre, Kolkata - Expert in Land use planning.
- f) Dr. K.D.Sah, Principal Scientist & Head, Regional Centre, Jorhat - Expert in Land evaluation and land use planning.

### **3.1. Local Support Team**

The Meghalaya Basin Development Authority will provide local support team, as and when required

## **4. Break-up Activities/ Scope of Work by The Second Party**

### **First phase (4 months)**

- Rapport building, interaction meets, assessing stakeholder & user needs.
- Procurement of RS data and other secondary information.
- Preparation of base map of the Ri-Bhoi district using Survey of India Toposheets and satellite imageries.
- Surface analysis in GIS environment.



- Landform analysis and selection of transects.
- Detailed soil survey on 1:10,000 scale and collection of profile samples
- Collection of Socio-economic data.

#### **Second Phase (4 months)**

- Detailed soil survey on 1:10,000 scale and collection of profile samples
- Collection of Socio-economic data.

#### **Third Phase (4 months)**

- Field level Correlation and classification of soils.
- Analysis and interpretation of soil samples for different parameter.
- Collection of Socio-economic data.

#### **Fourth Phase (4 months)**

- Analysis and interpretation of soil samples for different parameter.
- Preparation of soil map on 1:10,000 scale at mono series level.

#### **Fifth Phase (4 months)**

- Preparation of soil based interpretative maps like land capability, fertility capability, land irrigability and soil site suitability for crops.
- Preparation of integrated action plan considering the problems and potentials of the land.

#### **Sixth Phase (4 months)**

- Human resource development - How to use the report - at lower level, middle level and executive levels.
- Preparation of reports with maps and other documents.

5. **Budget:** The total cost of the project is ₹ 37,12,000/- (Rupees thirty seven Lakh, twelve thousand only). As the project is formulated in collaborative mode the total budget is divided in to two parts as follows:

- Expenditure related to field work is ₹ 24,02,000/- (Rupees twenty four Lakh two thousand only) - borne by Meghalaya Basin Development Authority.






- Expenditure related to purchase of satellite imagery, analysis of sample, GIS work and report preparation is ₹ 13,10,000/- (Rupees thirteen Lakh ten thousand only) - borne by NBSS & LUP (ICAR).

**Expenditure related to field work (Meghalaya Basin Development Authority)**

Sl. No.	Particulars	Amount (₹)
<b>A. EXPENSES</b>		
1.	Contingency POL including hiring of vehicle need based, local transport, (10 litre of H/s Diesel consumed per day × 240 days @ 63/- per litre)	1,51,200/-
2.	Contingency for TA and DA for field staffs for soil survey work Scientists @ 1000/- per day × 240 days = 2,40,000/- Technical @ 600/- per day × 240 days = 1,44,000/- Supporting @ 400/- per day × 240 days = 96,000/-	4,80,000/-
3.	Labour wages for conducting soil survey work (@ 300/- × 240 days × 4)	2,88,000/-
4.	Interaction meet with stake-holders, state line departments including human resource development at lower, middle and executive level etc.	1,20,000/-
5.	Young professional (1) for one year @ ₹ 15,000/- per month	1,80,000/-
6.	Consultant for two years @ ₹ 25,000/month	6,00,000/-
	<b>TOTAL (1 to 5)</b>	18,19,000 /-
7.	Overhead cost (20% of the total cost)	3,63,800/-
	<b>TOTAL (1 to 6)</b>	21,82,800 /-
	<b>INTELLECTUAL FEE*</b>	2,18,280/-
	<b>TOTAL EXPENDITURE (A+ B)</b>	24,01,080/-

Rupees Twenty four lakh two thousand only (approx)

**Expenditure borne by NBSS & LUP (ICAR), RC, Jorhat**

Sl. No.	Particulars	Amount (₹)
<b>A. EXPENSES</b>		
1.	Procurement of satellite data - Ortho-corrected Resourcesat-2 LISS IV FMX imageries (1:12500 scale) and Cartosat-1 PAN stereo ortho kit.	1,92,000/-
2.	Contractual Manpower for collection of soil samples, soil grinding, soil analysis and data entry (@ 7,500/- per month × 10 months × 4)	3,00,000/-
3.	Cost of soil analysis including chemicals, glass wares, etc.	2,50,000/-
4.	Cost of physical inputs (lab. Instruments, Desktop computer, GPS, etc.)	70,000/-
5.	Young professional (1) for one year @ ₹15000/- per month	1,80,000/-
6.	Data processing, report finalization and printing (Computer aided cartographic and GIS materials and report printing)	1,00,000/-
	<b>TOTAL (1 to 5)</b>	10,92,000 /-
7.	Overhead cost (20% of the total cost)	2,18,400/-
	<b>TOTAL (1 to 6)</b>	13,10,400/-

**4.1 Terms of Payment**

As full consideration for the services performed by the Second Party under the Terms of this Agreement, THE FIRST PARTY shall pay the Second Party the sum of ₹24,02,000/- (Rupees Twenty four Lakh two thousand only) in four phases.

Description	Percentage	Amount (₹)
On signing of the agreement	30%	7,20,600
At the commencement of the project	50%	12,01,000
After submission of draft report/maps	15%	3,60,300/-
After submission of final report	5%	1,20,100/-
<b>Total</b>		<b>24,02,000/-</b>

All OPE will be borne by the Second Party from the above mentioned sum of ₹24,02,000/-



## 6. Rights and Obligations of the Second Party

The rights and obligations of the Second Party are strictly limited to the terms and conditions of this Agreement, including the annexed ToR and its written proposal and presentation. Accordingly, the Second Party shall not be entitled to any benefit, payment, subsidy, compensation or entitlement, unless expressly provided in this Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement.

By signing below, the Second Party acknowledges and accepts the terms of this Agreement.

FOR THE FIRST PARTY

Name: Pankaj Jain, IAS

Title: Deputy Chief Executive Officer

Meghalaya Basin Development Authority

**Deputy Chief Executive Officer**  
**Meghalaya Basin Development Authority**

Signature:

Date:

FOR THE SECOND PARTY

Name: Dr. S.K. Singh

Director, NBSS & LUP (ICAR)

Signature

Date:

WITNESS

1. *R.R.R. Mahesh*  
Director  
MBDA.

Signature:

Date:

*Dr. K.D. Sah*  
2. Dr. K.D. Sah 10.10.14  
Principal Scientist and Head  
NBSS & LUP, RC, Jorhat

Signature

Date:


### Terms of Reference

#### Land Resource Inventory of Ri-Bhoi District, Meghalaya at 1:10,000 Scale for farm planning


The last comprehensive soil resource inventory study was carried out in 1995 on 1:2,50,000 scale. Since then, considerable changes that have taken place in terms of population growth, economic development, changes in land use (such as conversion of *Jhum* land to perennial crops), land degradation and possible impacts of climate change. The available information at small scale is not adequate to suggest farm level planning. Therefore land resource inventory at 1:10,000 Scale would be very useful for farm planning.

The study would investigate and report on Ri-Bhoi district would be with the following output:

- a. Block wise Digital terrain models (DTM).
- b. Block wise Land use/land cover (LULC) maps.
- c. Block wise Physiographic land unit (PLU) maps.
- d. Block wise Soil and thematic maps on 1:10,000 scale.
- e. Block wise land resource information system (LRIS).



Dr. S.K. Singh  
Director



National Bureau of Soil Survey  
and Land Use Planning (ICAR) Nagpur-440033