



महाराष्ट्र MAHARASHTRA

2018

NAGPUR TREASURY  
TL 956922  
15 JUN 2018  
Stamp Head Clerk / St. Clerk

### MEMORANDUM OF UNDERSTANDING

NATIONAL BUREAU OF SOIL SURVEY AND LAND USE PLANNING, PARTNERING WITH VASUNDHARA WATERSHED DEVELOPMENT AGENCY, GOVERNMENT OF MAHARASHTRA FOR IMPLEMENTATION OF WORLD BANK ASSISTED PROJECT "NEERANCHAL" FOR THE WATERSHED COMPONENT (ERSTWHILE INTEGRATED WATERSHED MANAGEMENT PROGRAMME) OF THE PRADHAN MANTRI KRISHI SINCHAYI YOJANA

Memorandum of Understanding dated 20<sup>th</sup> day of June, 2018 and executed between: Vasundhara Watershed Development Agency (VWDA), Government of Maharashtra, having its office in Central Administrative Building, 1st Floor, Pune, Maharashtra 411001 represented by its Commissioner (Agriculture) and CEO, VWDA or his authorized representative (herein after called as VWDA- Client) is the First party, which term shall mean and include Executors, Administrators. .  
and

The National Bureau of Soil Survey and Land Use Planning (ICAR-NBSS&LUP), Nagpur an apex institute under the Indian Council of Agricultural Research (ICAR) New Delhi, Government of India or its authorized representative (hereafter called as ICAR-NBSS&LUP, Nagpur- Project Partner ) as the Second party and which term shall mean and include Executors and Administrators.

१) दस्ताचा प्रकार/अनुच्छेद क्रमांक	
२) दस्त नोंदणी करणार आहेत काय ?	होय/नाही
३) नोंदणी होणार असल्यास दुय्यम निबंधक कार्यालयाचे नाव	दुय्यम निबंधक क.
४) मिळकतीचे वर्णन	
५) मोबदला रक्कम	
६) मुद्रांक विकत घेणाऱ्याचे नाव	SIRAPAT LION & SONS PVT
७) दुय्य्या पक्षकाराचे नाव	
८) हस्ते असल्यास रवाचे नाव व पत्ता	Mansun
९) मुद्रांक शुल्क रक्कम	100
१०) मुद्रांक विक्री नोंद घेणे अनुक्रमांक	6982/दिनांक 9013/12/90
११) मुद्रांक विकत घेणाऱ्याची पत्ती	
वि. एन. क्षीरसागर	मुद्रांक विक्रेता ला. क्र. १०/१९९६ कोड क्र. ४६०१००३ जिल्हाधिकारी परीसर तह. कार्यालय नागपूर.



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ICAR-NBSS&LUP, Nagpur- Project Partner ) as the Second party and which term shall mean and include Executors and Administrators.

## 1. Project Background

The Government of Maharashtra, Govt. of India and World Bank, have designed a new Neeranchal National Watershed Project to strengthen the GOI sponsored PMKS – WDC (erstwhile IWMP) and its convergence with other developmental programs. The Project Development Objective of Neeranchal is “to support the Watershed Development Component of the PMKSY to improve incremental conservation outcomes and agricultural yields for communities in selected sites, and adoption of new processes and technologies into the broader programme in participating States.”

The Project will be implemented over a period of four years from 2018-19 to 2020-21 in two districts of Maharashtra State viz. Amravati and Ahmednagar in selected 10 projects/watersheds.

The Project has four broad components viz., i) Central Institutional and Capacity Building, ii) National Innovation Support, iii) Implementation Support in Participating States, and iv) Project Management and Co-ordination.

Accordingly, GoM proposes to implement the third component of World Bank assisted Neeranchal Project. Component 3 has the following sub-components.

1. Improving systems at State level: GIS lab, monitoring systems, CB support, upscale innovations, project management support.
2. State specific problems and issues: Appropriate technology solutions for saline, ravine, mine affected areas, etc.
3. Improved incomes for landholder and assetless: Value addition of farm products, business models, market and credit linkages.
4. Urban Watersheds (small peri-urban settlement) 2 per state: Delineation of watershed and catchment treatment, in-situ rain water harvesting of waste water for agriculture use.

The ICAR-NBSS&LUP will be involved in providing guidance in sub-component State Specific problems and issues. Appropriate technology solutions for saline, ravine, mine affected etc. to the partners in the two project districts besides undertaking land resource inventory (LRI) and resource based land use planning in 10 watersheds/projects and the details of 10 projects are given in Annexure I.

2. The task assigned to NBSS&LUP intends to demonstrate more effective watershed management through greater integration of programs related to rainfed agriculture, innovation and science based approaches and strengthen institutions and capacities of stake holders at different levels through:
  - Characterization and Mapping of natural resources on 1:10000 scale for their optimum utilization and conservation;
  - Resource based land use planning and management including watershed development plan

and develop a resource based model on pilot scale to address the issues of rain fed farmers for sustainable natural resource management to ensure economic and gender equity.

**PMKSY-WDC Project Stakeholders:**

- Vasundhara Watershed Development Agency, Pune
- Department of Agriculture, Government of Maharashtra
- District and Taluka level Watershed Teams and Watershed Committees, and Community Institutions such as User Group and Self-Help Groups
- Local Self Governance Institutions like Gram Panchayat

**Neeranchal Proposed Implementing Partners:**

- Maharashtra Remote Sensing Applications Centre, Nagpur
- Mahatma Phule Krishi Vidyapith, Rahuri
- Dr Punjabrao Deshmukh Krishi Vidyapith, Akola
- National Bureau of Soil Survey & Land Use Planning (ICAR-NBSS&LUP), Nagpur

**Project Implementing Agency:**

VWDA and Department of Water Conservation (DoWC), Government of Maharashtra (GoM) are the implementing agencies. They are responsible for achieving the goals and objectives of the project. The Commissioner – VWDA, Pune will be the Project Director responsible for overall project implementation. Director, NBSS&LUP will represent the second party for administrative decisions and general leadership. A Nodal officer Dr N. G. Patil, Principal Scientist, NBSS&LUP will support him; lead the investigations and co-ordinate with VWDA.

3. **WHEREAS:**

**ICAR-NBSS&LUP** has the necessary expertise and has years of experience to conduct and promote research in the National Agricultural Research System in the areas of Soil Survey, Pedology, Geomorphology, Remote Sensing, Geographical Information System, Cartography, Land Evaluation and Land Use Planning and hence considered as exceptionally well qualified partner of VWDA;

As a lead Agency, ICAR-ICAR-NBSS&LUP shall guide the stakeholders especially Mahatma Phule Krishi Vidyapith (MPKV), Rahuri and Dr Punjabrao Deshmukh Krishi Vidyapith (Dr PDKV), Akola on all aspects related to Natural resource characterization in 10 projects in two project districts, development of alternate land use plans including Logistics and Capacity Building and guide Watershed Development, as planned in the project.

The financial outlays for the component for which ICAR-ICAR-NBSS&LUP will be responsible, is as follows:

4. **FINANCIAL OUTLAY FOR THE COMPONENT TO BE IMPLEMENTED BY ICAR-NBSS&LUP WITH BREAKUP (Rs. Lakhs)**

Activity	Amount (Rs. in lakh)	Remarks
Operational expenses including soil survey at 1:10K @Rs. 175 per ha (Enclosed project area 40780ha)	71.00*	This includes field work as well office work. All expenses (sampling, labour charges, small equipments, sample bags, expenses related to data acquisition, trainings etc) related to resource survey are included
Laboratory expenses@Rs.75 per ha (for Selected project area of 40780 ha)	30.00*	Chemicals, glassware and other laboratory expenses
Manpower (2Young Professionals @Rs.30000 for two years)	14.4	NBSS and LUP will be empowered to define qualifications for manpower to be engaged in the project
Capacity building, workshop/conference, Travel, accommodation and other related expenses	4.00	Includes charges for hiring vehicle, POL, accommodation expenses, DA etc.
Other unforeseen expenses	2.00	
Total cost	121.4	

\*Subject to change in area.

**5. NOW THEREFORE THE PARTIES AGREE TO IMPLEMENT SUB COMPONENT OF NEERANCHAL PROJECT WITH THE FOLLOWING UNDERSTANDINGS:**

**5.1 Responsibilities of ICAR-NBSS&LUP (Second Party):**

The specific tasks to be performed by ICAR-NBSS&LUP will include (but not limited to):

Sl No	Task	Time Schedule from the date of signing of MOU
1.	Assisting VWDA in organizing stakeholder workshops for orientation of the project partners, project staff and Line Departments including IWMP NGOs	As per mutually approved program within 24 months
2.	Land resource inventory at 1:10K (23 Soil properties data including sand, silt, clay content, field capacity, available water capacity, nutrient status, bulk density and other related parameters) and make it available to VWDA in the form of hard copies and shape files (.shp)	Within 12 months

3.	Hire man power as per approval	Within 3 months
4.	Advise MRSAC, VWDA and other partner institutions more specifically SAUs on the use and the requirement of various remote sensing data , theme maps as the project progresses	As and when required during the project period
5.	Train the SAUs, state officials community on the application of remote sensing and GIS technique in Natural Resources Characterization and mapping in collaboration with MRSAC	As per mutually agreed program within 12 months
6.	Undertake project area assessment involving all project partners and local community	As per mutually agreed program within 6 months
7.	Co-ordinate natural resource characterization, mapping and Socio economic profiling in selected micro-watersheds for baseline data	As per mutually agreed program within 36 months
8.	Undertake correlation of soil series from the project districts	As per mutually agreed program within 36 months
9.	Conduct periodic review and set up priorities related to field survey, correlation, data interpretation, data integration, generation of thematic layers and authentication	As per mutually agreed program within 36 months
10.	Developing Decision Support System (DSS) in collaboration with other project partners	As per mutually agreed program within 12 months
11.	Assisting VWDA in reviewing to finalise and incorporate the Treatment and Master plan as and when required. Development of watershed Decision Support System for LUP	As per mutually agreed program within 36 months
12.	Assisting VWDA in capacity building programs	During the entire project period
13.	Assisting VWDA / organize stakeholder workshops one in each project districts (related to micro-watersheds) for validating the treatment / master plans and incorporate the outcomes into the master plan revisions	As per mutually agreed program within 24 months
14.	ICAR-NBSS & LUP will share all the data acquired by it during the project period with VWDA, MPKV and Dr PDKV as and when the data are available.	Continuous activity
15.	Assist VWDA in developing guidelines to draw treatment plans integrating with other programs to incorporate into the participatory micro-watershed master plans by utilising pilot watershed experience	As per mutually agreed program within 18 months
16.	Hold six monthly workshops and other consultation processes for mid-course corrections and as and when the need arises. Review the work progress with VDWA at least once in three months	Continuous activity
17.	At least one monthly visit by ICAR-NBSS&LUP Scientist to the project area. The Scientist shall interact, co-ordinate with filed functionaries /stakeholders/beneficiaries	Continuous activity

## 5.2 Responsibilities of Vasundhara Watershed Development - (First Party):

To support ICAR-NBSS-LUP in performing its activities, the VWDA shall:

1. Liaison with Project District ZPs and PRIs for effective program convergence;
2. Provide Financial support, Enable conducive working environment for collaboration between various stakeholders involving Line Departments and Project Partners of the Project;
3. Facilitate the participation of district and taluka WDTs, Watershed Committees (WC) and Various Community based organizations (CBOs), User Groups, SHGs, training coordinators in all the activities of the Project partners;
4. Get involved in the project inception activities like State / District level stakeholder workshops and awareness programs and provide necessary information and clarification;
5. Undertake periodic review of Project Progress with various groups of Stakeholders & ICAR-NBSS&LUP;
6. Continuously evolve and update the guidelines and recommendations for project implementation, based on the experiences generated by the Project partners and other institutions at the project level;
7. Ensure a free unhindered data sharing especially data required for impact analysis/quantifying incremental benefits of LRI.
8. Share Baseline data with ICAR-NBSS&LUP.

**5.3 Duration:** Duration of the MoU will be over a period of three years from the date of signing of MoU. Contract period of project could be extended beyond the stipulated period, if agreed mutually.

ICAR-NBSS&LUP will provide the landholding support entire period of Neeranchal National Watershed Project. Even after the completion of MoU contract, senior scientists from ICAR-NBSS&LUP will guide at least once in every three months upto consolidated phase of Neeranchal National Watershed Project.

**5.4 The data/inputs to be provided by MRSAC, VWDA and other agencies are as follows:**

Department of Revenue/Agriculture	Historical data (soft copy) on crops and yields. (Cadastral level information)
Department of Animal Husbandry	Details of livestock, disease occurrence, area under fodder crops and yields
Department Fisheries	Extent of pisciculture and surface bodies used and yields
Department of Forestry	Forest areas, extent and canopy and other details

Department of Minor Irrigation	Details of surface water bodies (tanks, check dam, vented dams) and areas irrigated along with cropping pattern
Vasundhara	Hydrological data of the gauging station (if a station is located in the MWS)
MRSAC	<ul style="list-style-type: none"> <li>• Cadastral map of each watershed village in the two districts (shape file)</li> <li>• Land Use Land cover map of all the MWS (shape file)</li> <li>• Digital Elevation Map of 10 meter resolution using Cartosat I of 1 meter resolution or higher resolution data (shape files)</li> <li>• Geological and geomorphologic maps of the two districts at 1:50K or larger scale (shape file)</li> <li>• All the available daily climate/weather data (temperature, rainfall, humidity <i>etc.</i>) pertaining to Amravati and Ahmednagar district(s)-excel or shape file</li> <li>• Data on ground water levels from observation wells (Amravati and Ahmednagar district) excel or shape file</li> <li>• Ground water potential map of the two districts (shape file)</li> </ul>

### 5.5 Payment terms and conditions:

#### Fund release and audit:

The VWDA will release funds to ICAR-NBSS&LUP as per schedule given below on completion of tasks as specified hereunder and to the satisfaction of the review committee headed by the Commissioner.

Time period	After the completion of activities (as mentioned in 5.1 of MoU)	Funds to be released (%)
Within one month after the date of MoU signing	(As Advance) after the detail presentation of inception report before the CEO, VWDA, Pune	10.00
At the end of the first year	2, 3, 5, 6, 10	30.00
At the end of the second year	1, 13, 15	30.00
At the end of the third year	4, 7, 8, 9, 11, 12, 14, 16, 17	30.00

ICAR-NBSS&LUP shall maintain a dedicated Bank account/ledger (Subject to ICAR approval) to operate this fund. It shall follow strictly the provisions of the Financial Management and Procurement Manual of World Bank. All the expenditures, financial transactions shall be subject to internal auditors appointed by VWDA under the project or any other agency identified by World Bank and further subject to external audit by C & AG. NBSS&LUP shall submit Utilisation Certificate on Quarterly, half-yearly and yearly basis to VWDA, NBSS&LUP shall also submit annual audit report copy to VWDA for funds released for Neeranchal.

**5.6 Intellectual Property Rights:**

The Intellectual Property rights will be shared between VWDA and Project partners. Confidentiality of non-public information will be privy to the project, GoM, VWDA and the World Bank.

**5.7 Modifications to MOU:**

Terms and Conditions of MoU may be reviewed and modified by mutual consent as per the requirement of various components / activities as and when the need arises.

**5.8 Settlement of disputes:**

In case of any dispute and/or any difference of opinion, the same shall be amicably settled in a meeting between the Commissioner (Agriculture), CEO, VWDA, GoM and Director, ICAR-NBSS&LUP. In the case of non-settlement of dispute, the cases would be settled following the Government of India Guidelines if any. In the absence of such GOI Guidelines the disputes shall be referred to Secretary (Water Conservation), Government of Maharashtra, whose decision shall be binding for both the parties.

5.9 ICAR-NBSS&LUP is likely to enter into an agreement/MoU with Department of Land Resources, Govt of India under component 2 of the Neeranchal project. If such MoU is signed, ICAR-NBSS&LUP and VWDA will jointly work out an amount for overlapping activities, to be deducted from the funds provided by VWDA to ICAR-NBSS&LUP.

**6.0 Termination;**

The MOU may be terminated by mutual consent of both VWDA and ICAR-NBSS&LUP with one month prior notice by either parties, , due to any unforeseen circumstances or in the event of suspension of loan by the World Bank and / or partner (ICAR-NBSS&LUP) failing to perform the specified tasks as mentioned in clause (5.1) of MoU.

**In witness thereof the parties to the MOU have signed and affixed their respective seals to this and on the date mentioned above.**

For and on behalf of

National Bureau of Soil Survey  
and Land Use Planning, Nagpur



Signature:

Director, NBSS&LUP

ICAR - NBSS & LUP  
NAGPUR - 440 033

For and on behalf of

Vasundhara Watershed Development  
Agency, Pune



Signature:

Additional CEO, VWDA  
**Additional Chief Executive Officer**  
**Vasundhara Watershed Development Agency**  
**Pune**

**Annexure I**  
**Watershed Development Agency, Pune**  
**Projects selected Under Neelanchal National Watershed Management Project**

Sr . No.	Name of District	Name of Project to be taken up under Neelanchal (as per IWMP MIS)	Name of Block	No. of villages	Name of villages	No. of Gram panchayat	Name of Gram Panchayat	Project Area (Treatment)
1	2	3	4	5	6	7	8	9
1.	Ahmednagar	IWMP-33/2014-2015	Akole	05	Tirde, Shivajinagar, Pendhewadi, Mahalung, Pachpattawadi	04	Tirde, Pendhewadi, Mahalungi, Pachapattawadi	3226.17
2.	Ahmednagar	IWMP-34/2014-2015	Karjat	05	Chande Bk., Khurangewadi, Kombhali, Kaudane, Khandavi	03	Chandane Bk, Kombhali, Kaudane	4458.23
3.	Ahmednagar	IWMP-35/2014-2015	Karjat	07	Thergaon, Magamnath, Nimgaon Gangadra, Mandali, Chincholi Rmjau, Belagaon, Ghumari	07	Thergaon, Nagamnath, Nimgaon Gangadra, Mandali, Chincholi Ramjau, Belagaon, Ghumari	4332.06
4.	Ahmednagar	IWMP-36/2014-2015	Karjat	07	Mirajgaon, Gondrdi, Tikhi, Ratanjan, Babhulgaon Kha., Nagapur,	06	Mirajgaon, Tikhi, Ratnjan, Babghulgao n Kha, Nagapur, Nagalwadi	4589.30

					Nagalwadi			
5.	Ahmednagar	IWMP-37/2014-2015	Shrigonda	03	Chikhali, Koregaon, Deulgaon Sidhi	03	Chikhali, Koregaon, Deulgaon, Sidhi	5166.04
<b>District Total</b>				<b>27</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>21771.80</b>
6.	Amravati	IWMP-31/2014-2015	Dharni	08	Hatida, Bijudhawadi, Mansudhawadi, Baru, Jutpani, Zapal, Toli, Beradabalda	04	Ranamalur, Bijudhawadi, Zapal, Beradabalda	3350.00
7.	Amravati	IWMP-32/2014-2015	Dharni	06	Dharni, Tingrya, Dahenda, Kalpi, Kusumkot Bk, Kalamkhar	04	Dharni, Tingrya, Kusumkot Bk, Kalamkhar	3105.07
8.	Amravati	IWMP-33/2014-2015	Dharni	08	Aki, Ghuti, Mandu, Titamba, Sawarya, Rabang, Bibamal, Dhodara	03	Ghuti, Titamba, Bibamal	3659.98
9.	Amravati	IWMP-34/2014-2015	Dharni	11	Bobado, Rohanikheda, Salai, Ambadi, Goulkheda, Pankhalya, DABida, Nagudana, Gambheri, Dhulghat, Bhokarbadri	07	Bobado, Salai, Pankhalya, Dabida, Khaparkheda, Dhulghat Road, Bhokarbadri	4368.59
10	Amravati	IWMP-36/2014-2015	Bhatukali	10	Nanded (Khur), Runmachan, Wadala, Kholapur,	08	Nanded (Khur), Kholapur, Mhaispur, Nawed,	4527.74

					Nawed, Borkhadi, Degurkheda, Ghatkheda, Wadala		Borkhadi, Hartodi, Khalkhon Basapur	
	<b>District Total</b>			<b>43</b>		<b>26</b>		<b>19011. 38</b>
	<b>Sub Total</b>			<b>70.00</b>		<b>49.0 0</b>		<b>40783. 18</b>