



# **Results-Framework Document (RFD)**

**for**

## **National Bureau of Soil Survey and Land Use Planning (2012-2013)**

Address:

Amravati Road, Nagpur-440 033

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<http://www.nbsslup.in>

## **Section 1: Vision, Mission, Objectives and Functions**

### **Vision**

To be the National Custodian of country's land and soil resources and land use related database and to support scientific and judicious land use planning at various levels to ensure food and income security.

### **Mission**

- To spread the knowledge/awareness on land and soil resources of the country for its preservation, conservation, increasing productivity and ensuring sustainable agricultural production.
- To monitor the state of health of soil resources in the Country and subsequent need based corrective measures.

### **Objectives**

- Soil resource inventorisation at different scales
- Optimization of land use
- Identification and establishment of Benchmarks soil series
- Human resource development
- Assessing soil fertility
- Organisation, cataloguing and creation of datasets on soils in GIS environment

### **Functions**

- To conduct soil resource inventory at various scales and develop scientific and optimal land use plans.
- To execute research programmes on applied and basic research in pedology, remote sensing applications and land use planning.
- To conduct training and P.G teaching in the fields of soil survey, mapping, land evaluation and land use planning and land resource management.

## Section 2: *Inter se* Priorities among Key Objectives, Success indicators and Targets

Objective	Weight (%)	Actions	Success Indicators	Unit	Weight (%)	Target/Criteria Values				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Soil resource inventorisation at different scales	25	Soil survey and mapping	Soil resource maps at different levels developed	No.	25	5	4	3	2	1
Optimization of land use	20	Land use planning	District level land use plans developed	No.	20	2	1	0	0	0
Identification and establishment of Benchmarks soil series	12	Soil correlation	Benchmark soil series identified and established	No.	12	10	9	8	7	6
Human resource development	13	Capacity building	Trainings/workshops conducted	No.	8	4	3	2	1	0
			Students awarded degree (in a collaborative programme with Dr. PDKV, Akola)	No.	5	4	3	2	1	0
Assessing soil fertility	10	Soil nutrient mapping	Soil nutrient maps at different levels developed	No.	10	15	14	12	10	9
Organization, cataloguing and creation of datasets on soils in GIS environment	8	Georeferencing of soil observation sites (points)	Georeferenced soil observation sites (points) of Black Soil Region	No.	4	417	375	333	292	250
			Georeferenced soil observation sites (points) of IndoGangetic plain	No.	4	425	382	340	297	255
Efficient Functioning of the RFD System	3	Timely submission of RFD for 2012-13	On-time submission	Date	2	Mar. 23 2012	Mar. 26 2012	Mar. 27 2012	Mar. 28 2012	Mar. 29 2012
		Timely submission of Results for 2012-13	On-time submission	Date	1	May 1 2013	May 2 2013	May 3 2013	May 6 2013	May 7 2013
Administrative Reforms	5	Implement ISO 9001	Prepare ISO 9001 action plan	Date	1	June 4 2012	June 5 2012	June 6 2012	June 7 2012	June 8 2012
			Implementation of ISO 9001	Date	2	Mar. 25	Mar. 26	Mar. 27	Mar. 28	Mar. 29

			action plan			2013	2013	2013	2013	2013
		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	2	100	95	90	85	80
Improving Internal Efficiency / responsiveness / service delivery of Ministry / Department	4	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	2	100	95	90	85	80
			Independent Audit of implementation of public grievance redressal system	%	2	100	95	90	85	80

### Section 3: Trend values of the success indicators

Objectives	Action	Success Indicator	Unit	Actual value for FY 10-11	Actual value for FY 11-12	Target value for FY 12-13	Projected value for FY 13-14	Projected value for FY 14 - 15
Soil resource inventorisation at different scale	Soil survey and mapping	Soil resource maps at different levels developed	No.	6	8	4	6	6
Optimization of land use	Land use planning	District level land use plans developed	No.	0	2	1	2	2
Identification and establishment of Benchmark soil series	Soil correlation	Benchmark soil series identified	No	10	10	9	10	10
Human resource development	Capacity building	Training/workshop conducted	No.	5	5	3	5	5
		Students awarded degrees	No.	4	4	3	4	4
Assessing soil fertility	Soil nutrient mapping	Soil nutrient maps at different levels developed	No.	10	10	14	13	13
Organization, cataloguing and creation of datasets on soils in GIS environment	Georeferencing of soil observation sites (points)	Georeferenced soil observation sites (points) of Black Soil Region		-	-	375	-	-
		Georeferenced soil observation sites (points) of IndoGangetic plain		-	-	382	-	-
Efficient Functioning of the RFD System	Timely submission of RFD for 2012-13	On-time submission	Date	-	-	Mar. 26 2012	-	-
	Timely submission of	On-time submission	Date	-	-	May 2 2013	-	-

	Results for 2012-13							
Administrative Reforms	Implement ISO 9001	Prepare ISO 9001 action plan	Date	-	-	June 5 2012	-	-
		Implementation of ISO 9001 action plan	Date	-	-	March 26 2013	-	-
	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	-	-	95	-	-
Improving Internal Efficiency / responsiveness / service delivery of Ministry / Department	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	-	-	95	-	-
		Independent Audit of implementation of public grievance redressal system	%	-	-	95	-	-

#### **Section 4 Description and definition of success indicators and proposed measurement methodology**

##### **Objective 1:**

The objective will be accomplished by conducting soil survey and mapping at different scales using various tools and techniques namely, remote sensing, GIS, and pedometrics. The success indicators are the number of soil resource maps that would be generated at different levels viz. district, blocks and farms.

##### **Objective 2 :**

This objective will be fulfilled by undertaking land use planning in the selected disadvantaged (priority) districts of the country using Land Management Unit (LMU) - Linear Programming approach. The number of land use plans developed will be success indicators which will show various land use options for the LMUs identified. This will be measured in terms of the target achieved against the target set during the year.

##### **Objective 3 :**

This objective has two components, namely, i) Trainings and workshops and ii) Post Graduate Teaching and Research. Trainings will be conducted to develop skilled manpower in the field of Remote Sensing Applications, Soil Survey and Land Use Planning, and Carbon Sequestration and its performance will be measured through the total number of trainings organised. The performance of the second component will be measured by the number of students awarded Post Graduate (M.Sc. and Ph.D.) degrees in Soil Science and Agricultural Chemistry (with specialisation in Land Resource Management).

##### **Objective 4:**

Benchmark soils series act as 'management unit' for facilitating transfer of agro-technologies to soils under similar agro-ecoenvironment. They will be identified through 'Soil Correlation'. Number of Benchmark soil series identified are the success indicators for this objective.

##### **Objective 5 :**

Information on distribution of soil nutrients is of mammoth importance to guiding fertilizer management in soils which, in turn, is an essential pre-requisite to ensuring country's agricultural production. The number of soil nutrient maps developed at district and block levels is the success indicator which is measured in terms of the target achieved against the target set during the year.

##### **Objective 6 :**

The objective will be fulfilled by completing a short term project during 2011-12 and, therefore, no trend values have been given for 2009-2010. Number of enriched datasets and land degradation maps of different states and Union Territories developed are success indicators and will be measured against the target fixed for 2011-12.

#### **Section 5 Specific performance requirement from other departments that are critical for delivering agreed results**

1. Support from the associated State Agriculture Departments/SAUs/NRSC/ICAR institutes and State Land Use Boards for promoting adoption of developed technologies
  - Support is required from the NRSC in form of land degradation datasets that they would provide towards generation of enriched land degradation datasets and maps.

- Support is required from the state/district/block agriculture department for map and secondary data procurement during preparation of soil resource inventory.
  - Support is required from the officials of the selected disadvantaged districts, state land use boards as well as NGOs during development of land use plans in the district and implementation process.
  - In identifying benchmark soils, support is required from the state soil survey departments during correlation process.
  - Support from SAUs is required during nutrient mapping in the form of available datasets on nutrient stock.
2. Adoption of technology will depend on the proactive roles of KVKs, SAUs district administration and State Departments.
    - Support is required from State Agriculture Departments/SAUs/NGOs in adopting soil resource/soil nutrient and land use plan maps towards agricultural development
  3. Support is required from SAUs for conducting Post Graduate teaching and research programmes (in collaboration with NBSS&LUP).



**Section 6 : Outcome / Impact of activities of NBSS&LUP, Nagpur**

<b>Outcome/impact of RCs</b>	<b>Jointly responsible for influencing the outcome/impact with the following organisation(s)/ departments/ ministries</b>	<b>Success Indicator(s)</b>	<b>Unit</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
Policy plans for sustained agricultural production and productivity on the basis of inventories developed at different scales on land resources including those on degraded lands and soil nutrients	Department of Agriculture and Cooperation (DAC), National Remote Sensing Centre (NRSC), Regional Remote Sensing Service Centre (RRSSC), State Agricultural Universities (SAUs), State Department of Agriculture, Crop institutes of ICAR	Maps and reports published at different scales	Number	07	08	10	12	6
Skilled and quality human resources	ICAR institutes / SAUs	Training organized	Number	04	05	04	05	05