



Results-Framework Document(RFD)

For

**National Bureau of Soil Survey and
Land Use Planning, Amravati Road,
Nagpur**

(1st April, 2011- 31st March, 2012)

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

- Development of methodology to conduct cost effective and time efficient soil survey and mapping using latest techniques like remote sensing tools/GPS/GIS etc.
- Generation of soil resource information at Watershed, Tehsil, Block level (1:10,000 / 1:12,500 scale) and priority Districts (1:50,000 Scale).
- Coordination of soil survey by various agencies in the country through Users' interaction meet.
- Correlation of soils at different categorical levels to establish Benchmark Soil Series to be used for Transfer of Technology.
- Conducting applied and basic research in pedology, remote sensing application and land evaluation for land use planning.
- Assessment of land degradation for resource conservation and sustainable management in collaboration with other organisations in the Country.
- Land quality assessment on the basis of land resource dataset generated.
- Human Resource Development –
 - Training and teaching in soil survey and mapping, remote sensing and GIS applications, watershed characterization and land use planning.
 - Conducting consultancy projects in the specialised fields of the Institute.

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	Action	Success Indicator	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	District level soil resource maps developed	No.	15	2	1	0	0	0
			Block level soil resource maps developed	No.	7	3	2	1	0	0
			Soil resource maps of farms developed	No.	3	2	1	0	0	0
Optimization of land use	20	Land use planning	District level land use plans developed	No.	20	2	1	0	0	0
Human resource development	14	Capacity building	Training/workshop conducted	No.	8	5	4	3	2	1
			Students awarded degree	No.	6	4	3	2	1	0
Identification of Benchmark soil series	12	Soil correlation	Benchmark soil series identified	No.	12	10	8	6	4	2
Preparation of soil nutrient maps	10	Soil nutrient mapping	District level soil nutrient maps developed	No.	7	7	6	5	4	3
			Block level soil nutrient maps developed	No.	3	3	2	1	0	0
Enrichment of land degradation datasets of India	8	Enrichment of land degradation datasets with soil datasets through GIS	Enriched land degradation datasets and maps of different states and Union Territories	No.	8	35	32	30	28	25

Efficient functioning of the RFD system	11%	Timely submission of RFD for 2011-12	On-time submission	Date	2%	June 10, 11	June 14, 11	June 16, 11	June 20, 11	June 22, 11
		Timely submission of results for 2011-12	On-time submission	Date	1%	May 1, 12	May 3, 12	May 4, 12	May 5, 12	May 6, 12
		Finalization of strategic plan	Finalization of strategic plan for 2011-16	Date	2%	Dec 10, 11	Dec 15, 11	Dec 20, 11	Dec 24, 11	Dec 31, 11
		Identification of potential areas of corruption related to organization activities and develop an action plan to mitigate them	Finalization of action plan to mitigate potential areas of corruption	Date	2%	Dec 10, 11	Dec 15, 11	Dec 20, 11	Dec 24, 11	Dec 31, 11
		Implementation of Sevottam compliant system to implement, monitor and review citizen's charter	Creation of a sevottam compliant system to implement, monitor and review citizen's charter	Date	2%	Dec 10, 11	Dec 15, 11	Dec 20, 11	Dec 24, 11	Dec 31, 11
			Creation of a sevottam compliant system to redress and monitor public grievances	Date	2%	Dec 10, 11	Dec 15, 11	Dec 20, 11	Dec 24, 11	Dec 31, 11

Section 3 : Trend values of the success indicators

Objectives	Action	Success Indicator	Unit	Actual value for FY 9-10	Actual value for FY 10-11	Target value for FY 11-12	Projected value for FY 12-13	Projected value for FY 13-14
Soil resource inventorisation at different scales	Soil survey and mapping	District level Soil resource maps developed	No.	2	2	1	2	2
		Block level soil resource maps developed	No.	3	3	2	3	3
		Soil resource maps of farms developed	No.	1	1	1	1	1
Optimization of land use	Land use planning	District level land Use plans developed	No.	0	0	1	2	2
Human resource development	Capacity building	Training/workshop conducted	No.	5	5	4	5	5
		Students awarded degrees	No.	4	4	3	4	4
Identification of Benchmark soil series	Soil correlation	Benchmark soil series identified	No.	10	10	8	10	10
Preparation of soil nutrient maps	Soil nutrient mapping	District level Soil nutrient maps developed	No.	7	7	6	7	7
		Block level soil nutrient maps developed	No.	3	3	2	3	3
Enrichment of land degradation datasets of India	Enrichment of land degradation datasets with soil datasets through GIS	Enriched land degradation datasets and maps of different states and Union Territories	No.	-	-	32	-	-

Efficient functioning of the RFD system	Timely submission of FRD for 2011-12	On-time submission	-	-	-	June 14, 11	-	-
	Timely submission of results for 2011-12	On-time submission	-	-	-	May 3, 12	-	-
	Finalization of strategic plan	Finalization of strategic plan for 2011-16	-	-	-	Dec 15, 11	-	-
	Identification of potential areas of corruption related to organization activities and development of an action plan to mitigate them	Finalization of action plan to mitigate potential areas of corruption	-	-	-	Dec 15, 11	-	-
	Implementation of Sevottam compliant system to implement, monitor and review citizen's charter	Creation of a sevottam compliant system to implement, monitor and review citizen's charter	-	-	-	Dec 15, 11	-	-
		Creation of a sevottam compliant system to redress and monitor public grievances	-	-	-	Dec 15, 11		

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, crop institutes of ICAR, 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

Outcome/impact of RCs	Jointly responsible for influencing the outcome/impact with the following organisation(s)/ departments/ ministries	Success Indicator(s)	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
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	Number of maps and reports published at different scales	08	07	08	10	12
Skilled and quality human resources	ICAR institutes / SAUs	• Number of training organized	05	04	05	05	05
		• Number of students awarded Post Graduate degree	04	04	04	07	07