



Results-Framework Document (RFD)

for

National Bureau of Soil Survey and Land Use Planning (2014-2015)

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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 survey, characterisation and mapping at different scales
- Land use planning at different scales
- Creation of awareness and knowledge

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

S. No.	Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target / Criteria Value				
							Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
1.	Soil survey, characterisation and mapping at different scales	45	Soil survey field work and laboratory analysis	Soil resource maps developed at different scales	No.	25	10	8	6	4	2
				Benchmark soils identified/established	No.	12	13	11	9	7	5
				Thematic maps developed at different scales	No.	8	16	13	10	7	4
2.	Land use planning at different scales	25	Bio-physical and socio-economic resource characterisation, analysis and their integration	Land use plans developed at different scales	No.	25	10	8	6	4	2
3.	Creation of awareness and knowledge	10	HRD & capacity building	Trainings conducted	No.	10	6	5	4	3	2
*	Publication/ Documentation	5	Publication of the research articles in the journals having the NAAS rating of 6.0 and above	Research articles published	No.	3	8	7	6	5	4
			Timely publication of the Institute Annual Report (2013-2014)	Annual Report published	Date	2	30.06.2014	02.07.2014	04.07.2014	07.07.2014	09.07.2014

*	Fiscal resource management	2	Utilization of released plan fund	Plan fund utilized	%	2	98	96	94	92	90
*	Efficient Functioning of the RFD System	3	Timely submission of Draft RFD for 2014-2015 for Approval	On-time submission	Date	2	May 15, 2014	May 16, 2014	May 19, 2014	May 20, 2014	May 21, 2014
			Timely submission of Results for 2013-2014	On-time submission	Date	1	May 1 2014	May 2 2014	May 5 2014	May 6 2014	May 7 2014
*	Enhanced Transparency / Improved Service delivery of Ministry/Department	3	Rating from Independent Audit of implementation of Citizens' / Clients' Charter (CCC)	Degree of implementation of commitments in CCC	%	2	100	95	90	85	80
			Independent Audit of implementation of Grievance Redress Management (GRM) system	Degree of success in implementing GRM	%	1	100	95	90	85	80
*	Administrative Reforms	7	Update organizational strategy to align with revised priorities	Date	Date	2	Nov.1 2014	Nov.2 2014	Nov.3 2014	Nov.4 2014	Nov.5 2014
			Implementation of agreed	% of Implementation	%	1	100	90	80	70	60

			milestones of approved Mitigating Strategies for Reduction of potential risk of corruption (MSC)								
			Implementation of agreed milestones for ISO 9001	% of implementation	%	2	100	95	90	85	80
			Implementation of milestones of approved Innovation Action Plans (IAPs)	% of implementation	%	2	100	90	80	70	60

Section 3: Trends Values of the Success Indicators

S. No.	Objectives	Actions	Success Indicators	Unit	Actual Value for FY 2012-2013	Actual Value for FY 2013-2014	Target Values for FY 2014-2015	Projected Values for FY 2015-2016	Projected Value for FY 2016-2017
1	Soil survey, characterisation and mapping at different scales	Soil survey field work and laboratory analysis	Soil resource maps developed at different scales	No.	5	9	8	9	10
			Benchmark soils identified/established	No.	10	12	11	12	13
			Thematic maps developed at different scales	No.	15	14	13	15	16
2	Land use planning at different scales	Biophysical and socioeconomic resource characterisation, analysis and their integration	Land use plans developed at different scales	No.	2	8	8	9	10
3	Creation of awareness and knowledge	HRD & capacity building	Trainings conducted	No.	4	5	5	5	5
*	Publication/Documentation	Publication of the research articles in the journals having the NAAS rating of 6.0 and above	Research articles published	No.	5	5	7	8	8
		Timely publication of the Institute Annual Report (2013-2014)	Annual Report published	Date	-	-	02.07.2014	-	-
*	Fiscal resource management	Utilization of released plan fund	Plan fund utilized	%	100	80	96	98	98

*	Efficient Functioning of the RFD System	Timely submission of Draft RFD for 2014-2015 for Approval	On-time submission	Date	-	-	May 16, 2014	-	-
		Timely submission of Results for 2013-2014	On-time submission	Date	-	-	May 2, 2014	-	-
*	Enhanced Transparency / Improved Service delivery of Ministry/Department	Rating from Independent Audit of implementation of Citizens' / Clients' Charter (CCC)	Degree of implementation of commitments in CCC	%	-	-	95	-	-
		Independent Audit of implementation of Grievance Redress Management (GRM) system	Degree of success in implementing GRM	%	-	-	95	-	-
*	Administrative Reforms	Update organizational strategy to align with revised priorities	Date	Date	-	-	Nov.2, 2014	-	-
		Implementation of agreed milestones of approved Mitigating Strategies for Reduction of potential risk of corruption (MSC)	% of Implementation	%	-	-	90	-	-
		Implementation of agreed milestones for ISO 9001	% of implementation	%	-	-	95	-	-
		Implementation of milestones of approved Innovation Action Plans (IAPs)	% of implementation	%	-	-	90	-	-

Section 4(a): Acronyms

S. No.	Acronym	Description
1.	GIS	Geographic Information System
2.	MLRA	Major Land Resource Areas
3.	DAC	Department of Agriculture and Cooperation
4.	NRSC	National Remote Sensing Centre
5.	RRSSC	Regional Remote Sensing Service Centre
6.	SAU	State Agricultural Universities
7.	ISRO	Indian Space Research Organisation
8.	DST	Department of Science and Technology
9.	SLUSI	Soil and Land Use Survey of India
10.	HRD	Human Resource Development
11.	LRI	Land Resource Inventory
12.	NBSS&LUP	National Bureau of Soil Survey and Land Use Planning
13.	PG	Post Graduate

Section 4 (b): Description and definition of success indicators and proposed measurement methodology

Sl. No.	Success Indicator	Description	Definition	Measurement	General Comments
1	Soil resource maps developed at different scales	The soil resource maps generate information on nature, extent and distribution of soils and serve as base for resource planning.	Soil resource maps are the records of soil units in a readable format delineated on the basis of similar properties.	Soil resource mapping will be done using remote sensing, GIS and pedometrics	This will ensure effective and efficient use of soil resources for land use planning
2	Benchmark soils identified/ established	Benchmark soil series act as 'management unit' for facilitating transfer of agro-technologies to soils under similar agro-eco environment.	A benchmark soil is one of large extent within one or more major land resource areas (MLRA), one that holds a key position in the soil classification system, one for which there is a large amount of data, one that has special importance to one or more significant land uses, or one that is of significant ecological importance.	Benchmark soil series will be identified and established through soil correlation	They will facilitate transfer of agro-technology to soils under similar agro eco environment.
3	Thematic maps developed at different scales	Thematic maps are maps developed on various themes including soil nutrients, soil / degradation, prime land that are of mammoth importance to guiding fertilizer management in soils, sustaining soil/land resources and demarcating prime land for agricultural purposes, respectively, which, in turn, are essential pre-requisites to ensuring country's agricultural production.	Thematic maps, are the record of nature, extent and spatial distribution of various themes (viz. climatic information, soil properties etc.) in readable format.	Soil nutrient mapping will be carried out using data on soil micro and macro nutrients. Soil/land degradation mapping using remote sensing techniques and soil analysis.	Soil nutrient mapping provides guidance for efficient fertility management.
4	Land use plans developed at different scales	Land use planning will be carried out at different levels by integrating bio-physical and socio-economic parameters	Land use planning is the systematic assessment of land and water potential, alternatives for land use and economic and social conditions in order to select	Land use planning will be accomplished at different scales using suitable approaches, such as, land	This will generate informed land use decisions.

			and adopt the best land use options.	management units and linear programming approach at district level and participatory rural appraisal at watershed /village/farm level	
5	Trainings conducted	This will consist of deputing staff of the institute in various national and international trainings in its various mandate - related fields. Besides, the institute will also create awareness and knowledge among stakeholders through imparting trainings in soil survey, land use planning and allied fields.	Training in soil survey, land use planning and allied fields is organised activity aimed at equipping the stakeholders with a required level of knowledge and improved skills in the said fields.	Creation of awareness and knowledge will be facilitated through trainings conducted for equipping the recipients with latest tools, techniques and knowhow in soil survey, land use planning and allied fields.	This will generate qualified and skilled manpower in soil survey, land use planning and allied fields.

Section 5 : Specific performance requirements from other departments that are critical for delivering agreed results

Location Type	State	Organization Type	Organization Name	Relevant Success Indicator	What is your requirement from this organization	Justification for this requirement	Please quantify your requirement from this Organization	What happens if your requirement is not met
Central Government	Andhra Pradesh	Research Development and Training	National Remote Sensing Centre (NRSC), Hyderabad	Soil resource maps developed at different scales	Satellite data products	Satellite imagery of various scales will be used for preparation of base maps and landform maps, the essential prerequisites to undertake soil survey work.	23 satellite imagery of areas of interest (at different scales)	It may lead to inordinate delay in achieving the targeted success indicators and also increased expenditure.
Central Government	New Delhi	Soil and land use survey and conservation	Soil and Land Use Survey of India (DAC), New Delhi	Soil resource maps developed at different scales	Manpower for conducting soil survey at 1:10,000 scale for developing LRI	For timely accomplishing the task.	10-12 persons	It may lead to inordinate delay in achieving the targeted success indicators.
State Government	Assam, Rajasthan, West Bengal, Odisha, Bihar, Himachal Pradesh, Delhi, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Jharkhand, Sikkim, Nagaland, Andhra	Research, Development and Extension	Department of Agriculture, Govt. of Assam, Rajasthan, West Bengal, Odisha, Bihar, Himachal Pradesh, Delhi, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Jharkhand, Sikkim, Nagaland, Andhra Pradesh, Karnataka, Kerala	Soil resource maps developed at different scales	Manpower and logistic support	For timely accomplishing the task.	5-6 persons from each state	It may lead to inordinate delay in achieving the targeted success indicators.

Location Type	State	Organization Type	Organization Name	Relevant Success Indicator	What is your requirement from this organization	Justification for this requirement	Please quantify your requirement from this Organization	What happens if your requirement is not met
	Pradesh, Karnataka, Kerala							
State Government	Assam, Rajasthan, West Bengal, Odisha, Bihar, Himachal Pradesh, Delhi, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Jharkhand, Sikkim, Nagaland, Andhra Pradesh, Karnataka, Kerala	Research Development and Extension	Department of Agriculture, Govt. of Assam, Rajasthan, West Bengal, Odisha, Bihar, Himachal Pradesh, Delhi, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Jharkhand, Sikkim, Nagaland, Andhra Pradesh, Karnataka, Kerala	Benchmark soils identified/ and established	Involvement of their personnel in soil correlation.	Harmonization of soil survey information collected by the NBSS&LUP and various state soil survey departments to identify and establish benchmark soil series.	5-6 persons from each state	Establishment of benchmark soil series will be held up.
State Governments Department of Agriculture	Sikkim, Nagaland	Research, Development and Extension	Department of Agriculture, Sikkim and Nagaland State	Thematic maps developed at different scales	Funds to carry out soil survey for nutrient mapping.	Financial support	Rs. 28.18 lakhs (Sikkim), Rs. 36.84 lakhs (Nagaland)	It will not be possible to undertake the said activity due to financial compulsions
State Government	Assam, Rajasthan, West Bengal, Odisha, Bihar, Himachal Pradesh, Delhi,	Research Development and Extension	Department of Agriculture, Govt. of Assam, Rajasthan, West Bengal, Odisha, Bihar, Himachal Pradesh, Delhi,	Land use plans developed at different scales	Involvement of their personnel (Manpower) in development of land use plans and their implementation	The stakeholders' involvement is to be ensured while developing land use plan of an area as well as at their	5-6 person from each state	Land use planning will not be realistic, and of pragmatic value without the involvement of stakeholders

Location Type	State	Organization Type	Organization Name	Relevant Success Indicator	What is your requirement from this organization	Justification for this requirement	Please quantify your requirement from this Organization	What happens if your requirement is not met
	Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Jharkhand, Sikkim, Nagaland, Andhra Pradesh, Karnataka, Kerala		Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Jharkhand, Sikkim, Nagaland, Andhra Pradesh, Karnataka, Kerala			implementation stage to make them (the land use plans) socially relevant and acceptable.		
Central Government	Karnataka	Research and Development (National level)	Indian Space Research Organisation (ISRO), Bangalore	Trainings conducted	Funds to carry out three training programmes	Funds will be required to meet expenditure on logistics, field studies and other miscellaneous items.	Total fund required = Rs. 12 lakhs @Rs. 4.0 lakhs per training	Without the funds, the NBSS&LUP will not be in a position to conduct the training programmes.
State Government	Maharashtra, Karnataka, Kerala	Research Development and Extension	Karnataka Watershed Development Department,	Trainings conducted	Funds to carry out three training programmes	Funds will be required to meet expenditure on logistics, field studies and other miscellaneous items.	Total fund required = Rs. 12 lakhs @Rs. 4.0 lakhs per training	

Section 6: Outcome / Impact of activities of Department/ Ministry

S. No.	Outcome/ impact	Jointly responsible for influencing the outcome/impact with the following organisation(s)/ department(s)/ ministry(ies)	Success Indicator(s)	Unit	2012-13	2013-14	2014-15	2015-16	2016-17
1	Facilitation of judicious utilization of soil resources for optimum land use planning for enhancing agricultural production	Soil and Land Use Survey of India (SLUSI), DAC, National Remote Sensing Centre (NRSC), Regional Remote Sensing Service Centre (RRSSC), State Remote Sensing Application Centres, State Agricultural Universities (SAUs), State Department of Agriculture and State Soil Survey Departments.	Soil resource maps and land use plans procured by State Govts/ Central Govts./ SAUs/ State Departments of Agriculture and other stakeholders.	No.	22	87 soil resource maps and 391 technical bulletins / Reports	90 soil resource maps and 350 technical bulletins / Reports	90 soil resource maps and 350 technical bulletins / Reports	90 soil resource maps and 350 technical bulletins / Reports
2	Generation of skilled and quality human resources in the field of soil survey and land use planning	State Department of Agriculture , SAUs, ISRO, DST, KVKs	Resource persons generated in the field of soil survey and land use planning	No.	90	113	115	115	120

