



Results-Framework Document (RFD)

for

Indian Institute of Soil Science (2013 - 2014)

Address: Nabibagh, Berasia Road,
Bhopal - 462038
Website ID: <http://www.iiss.nic.in>

Section 1: Vision, Mission, Objectives and Functions

Vision

Basic and strategic research on physical, chemical and biological processes in soils for improving soil health and crop productivity

Mission

To provide scientific basis for enhancing and sustaining productivity of soil resource with minimal environmental degradation

Objectives

- Appraisal and management of soil health
- Improving nutrient use efficiency
- HRD & capacity building

Functions

To plan, coordinate, implement and monitor research and development programmes for improvement of soil health and serve as a knowledge repository in the field of soil science.

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

S. No.	Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target / Criteria				
							Excellent	Very good	Good	Fair	Poor
							100%	90%	80%	70%	60%
1	Appraisal and management of soil health	45	Assessment of soil health	Soil health assessment under different crops and cropping systems	No.	15	6	5	4	3	2
			Management of soil health	INM packages developed for different agro-eco regions of the country	No.	15	10	8	6	4	2
				Developed conservation agricultural practices for crops / cropping systems	No.	10	3	2	1	-	-
				Developed management practices for remediation of polluted soils	No.	5	3	2	1	-	-
2	Improving nutrient use efficiency	20	Balanced and judicious use of fertilizers	Soil test based balanced fertilizer prescription equations developed	No.	10	4	3	2	-	-
				Technologies developed for improving nutrient use efficiencies	No.	5	3	2	1	-	-
				Efficient bio-fertilizers strains/formulations developed	No.	5	6	5	4	3	2
3	HRD & capacity building	24	Transfer of technology and creation of	Frontline demonstrations conducted	No.	15	28	24	22	20	18
				Farmers' trainings organised	No.	5	5	4	3	2	1

			awareness/ knowledge	Workshop/ seminar/ summer/ winter school organized	No.	4	10	8	6	4	2
Efficient Functioning of the RFD System	3	Timely submission of Draft RFD (2013-14) for approval	On-time submission	Date	2	May 15, 2013	May 16, 2013	May 17, 2013	May 20, 2013	May 21, 2013	
		Timely submission of Results for RFD (2012-13)	On-time submission	Date	1	May 1 2013	May 2 2013	May 5 2013	May 6, 2013	May 7, 2013	
Administrativ e Reforms	4	Implement ISO 9001 as per the approved action plan	% Implementation	%	2	100	95	90	85	80	
		Prepare an action plan for Innovation	On-time submission	Date	2	Jul 30, 2013	Aug. 10, 2013	Aug. 20, 2013	Aug, 30, 2013	Sept. 10, 2013	
Improving internal efficiency /responsivene ss / 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

S. No.	Objectives	Actions	Success Indicators	Unit	Actual value for 2011 -12	Actual value for 2012 -13	Target value for 2013-14	Projected value for 2014 -15	Projected value for 2015 -16
1	Appraisal and management of soil health	Assessment of soil health	Soil health assessment under different crops and cropping systems	Number	-	-	5	6	6
		Management of soil health	INM packages developed for different agro-eco regions of the Country	Number	5	8	8	8	9
			Developed conservation agricultural practices for crops / cropping systems	Number	-	-	2	3	3
			Developed management practices for remediation of polluted soils	Number	-	-	2	2	2
2	Improving nutrient use efficiency	Balanced and judicious use of fertilizers	Soil test based balanced fertilizer prescription equations developed	Number	3	4	3	4	4
			Technologies developed for improving nutrient use efficiencies	Number	1	2	2	2	3
			Efficient bio-fertilizers strains/ formulations developed	Number	2	2	5	5	6
3	HRD & capacity building	Transfer of technology and creation of awareness/ knowledge	Frontline demonstrations conducted	Number	13	15	24	28	32
			Farmers' trainings organised	Number	5	10	4	5	6
			Workshop/ seminar/ summer/ winter school organized	Number	5	4	8	8	9
	Efficient Functioning of the RFD	Timely submission of Draft RFD	On-time submission	Date	-	-	May 16, 2013	-	-

	System	(2013-14) for approval							
		Timely submission of Results for RFD (2012-13)	On-time submission	Date	-	-	May 2 2013	-	-
	Administrative Reforms	Implement ISO 9001 as per the approved action plan	% Implementation	%	-	-	95	-	-
		Prepare an action plan for Innovation	On-time submission	Date	-	-	Aug. 10, 2013	-	-
	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: Acronyms

S. No.	Acronym	Description
1	HRD	Human Resource Development
2	INM	Integrated Nutrient Management
3	IPNS	Integrated Plant Nutrient Supply System
4	KVK	Krishi Vigyan Kendra

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

S. No.	Success Indicator	Description	Definition	Measurement	General Comments
1	Soil health assessment under different crops and cropping systems	Soil health monitoring with the use of imbalanced and inadequate fertilizer application is essential to monitor the changes in different agro-eco regions. Assessment of soil health through delineating nutrient deficiency areas is essential for location specific fertilizer recommendation.	Long-term fertilizer experiments are assets to address the issue of soil health under continuous use of imbalanced and inadequate fertilizer application and also balanced and integrated nutrient use.	Soil health assessment/ improvement through different interventions.	
2	INM packages developed for different agro-eco regions of the country	Agricultural inputs like nutrient and water are not only costly but also scarce. Therefore, development of INM nutrient prescriptions for various crops and cropping systems is essential for attaining higher productivity levels.	Integrated plant nutrient supply systems (INM/ IPNS) encompassing conjunctive use of both chemical and organic nutrient sources will be developed to provide optimum nutrition to crops for sustaining better crop productivity for different crops	No. of IPNS systems developed for crops and cropping systems	

			and cropping systems.		
3	Developed conservation agricultural practices for crops / cropping systems	Conservation agriculture is an important aspect in improving soil health through optimization of tillage and residue retention for better soil health.	Various crops and cropping systems would be evaluated and best practices would be identified for improved soil health.	Conservation agriculture technologies for sustainable crop production	
4	Developed management practices for remediation of polluted soils	Judicious use of polluted water/sewage is important to meet the nutrient and water demand of crops especially near to urban areas	Assessment of soils polluted with sewage water and its remediation through plant at different sites	Technologies for use of polluted water	
5	Soil test based balanced fertilizer prescription equations developed	Soil test based fertilizer prescription is the demand of the hour due to large scale field variability on the farm level. Also the resource availability with the client need to be included sometimes to provide nutrients to crops through various resources than alone from the fertilizers.	Soil test based prescription equations would be developed for different crops in different agro-eco-regions.	No. of prescriptions developed	
6	Technologies developed for improving nutrient use efficiencies	Enhancing nutrient use efficiency is of utmost importance keeping in view the high cost of fertilizers and less availability due to limited production.	Different techniques will be employed to enhance the nutrient use efficiency.	No. of technologies developed	
7	Efficient bio-fertilizers strains/formulations developed	Soil is full of microbial life and very limited organisms have to be exploited for increasing nutrient use efficiency.	A continuous effort is required to research upon the beneficial microbial strains and their formulations to enhance nutrient use efficiency.	No. of formulations/strains identified	
8	Frontline demonstrations conducted	Frontline demonstrations (on-farm and off-farm) at different agro eco-regions is required to convince the stakeholders that the technology works at their location too.	Frontline demonstrations would be conducted at different locations in the country	No. of demonstrations conducted	
9	Farmers' trainings organised	Human resource development is a dynamic process. Farmers need to be	Farmers' training will be conducted for farmers from	No. of trainings organized	

		educated through the experts directly. At this level they feel the pulse of high end research and many a time come to know the things they never heard at their farms.	different regions for faster technology transfer		
10	Workshop/seminar/ summer/ winter school organized	Human resource development is a dynamic process. Scientists working in a narrow research areas many a time need to be updated on recent techniques/advances in research.	Scientists interaction would be facilitated through these activities	No. of workshops/summer/wint er schools organized	

Section 5: Specific performance requirement 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
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Section 6: Outcome/ Impact of activities of organisation

S. No.	Outcome/ Impact of organisation	Jointly responsible for influencing this outcome/ impact with the following organisation(s)/ departments/ ministry(ies)	Success Indicator (s)	Unit	2011-12	2012-13	2013-14	2014-15	2015-16
1.	Ensuring good soil health through balanced fertilization	State Agricultural Universities/ KVKs/ State Agricultural Departments	Increase in micronutrient fertilizer use	%	2	2	5	5	5
			Increase in bio fertilizer use over previous year	%	4	5	5	5	5
			Increase in organic manure use	%	2	2	3	3	3