



Government of India

**R F D**

(Results-Framework Document)  
for

Science and Technology

(2013-2014)

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

### Vision

To promote and popularise Science and Technology for the advancement and welfare of State and its people and to develop scientific temper in them.

### Mission

To Promote scientific temper by improvement in quality of science education in schools. Support technology development and technology absorption. Support research in priority areas. Help in creating science related infrastructure. Collaborating with other departments / universities / research institutes. Improve governance through technological shift. Undertake benchmark studies in different fields.

### Objectives

- 1 Promotion of scientific temper among general masses
- 2 Promotion and improvement in quality of science education in the State.
- 3 Support and promote innovation in the State.
- 4 Encourage research in biotechnology.
- 5 Encourage utilization of remote sensing and GIS techniques for overall developmental planning of the State.

### Functions

- 1 Identification of new technologies for agriculture and industry.
- 2 All matters relating to arrangements for processing the new technology.
- 3 All matters relating to liaison with Research Institutions, National Laboratories, Universities and Department of Science & Technology, Govt. of India.
- 4 Dissemination of new technology in the State.

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

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
[1] Promotion of scientific temper among general masses	20.00	[1.1] Popularization of science through annual quiz & essay contests for college and school students.	[1.1.1] Timely execution of the contests.	Date	5.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014
		[1.2] No. of schools/colleges participating in districts covered.	[1.2.1] No. of schools/colleges participating	Number	5.00	1050	945	840	735	630
		[1.3] No. of students participating in these State level contests	[1.3.1] No. of students participating	Number	5.00	4200	3780	3360	2940	2520
		[1.4] Increase in enrollment in science stream in colleges / universities of Haryana.	[1.4.1] %age increase	%age	3.00	5	4	3	2	1
		[1.5] Introducing the programme for developing scientific temper as per the concept note prepared during 2012-13.	[1.5.1] Timely introduction	Date	2.00	10/03/2014	15/03/2014	20/03/2014	25/03/2014	31/03/2014
[2] Promotion and improvement in quality of science education in the State.	10.00	[2.1] No. of research fellowships awarded & timely release of scholarships.	[2.1.1] No. of research fellowships offered	Number	5.00	25	20	15	10	5
			[2.1.2] Timely release of POSE scholarships	Date	5.00	15/02/2014	28/02/2014	10/03/2014	20/03/2014	31/03/2014
[3] Support and promote innovation in the State.	20.00	[3.1] R&D targets specifying areas of technology research.	[3.1.1] No. of R&D projects approved.	Number	10.00	4	3	2	1	0
		[3.2] percentage of ongoing R&D projects meeting the pre agreed milestones.	[3.2.1] % of R&D projects meeting the targets	%	4.00	100	90	80	70	60

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

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		[3.3] No. of new / ongoing collaborations with leading national / international institutions.	[3.3.1] Number of collaborations	Number	4.00	5	4	3	2	1
		[3.4] Scheme for putting useful innovation into commercial use.	[3.4.1] No. of new technologies identified for deployment next year.	Number	2.00	5	4	3	2	1
[4] Encourage research in biotechnology.	15.00	[4.1] No. of new areas identified.	[4.1.1] No. of research protocol developed.	Number	2.00	3	2	1	0	0
		[4.2] No. of high quality plants produced.	[4.2.1] No. of high quality plants produced.	Number	3.00	50000	45000	40000	35000	30000
		[4.3] No. of scientists working in this area of plant biotechnology.	[4.3.1] No. of scientists working	Number	2.00	4	3	2	1	0
		[4.4] Training imparted to various categories like farmer, students, entrepreneurs, corporate, etc.	[4.4.1] No. of persons trained	Number	3.00	50	45	40	35	30
		[4.5] No. of products commercialized.	[4.5.1] No. of products commercialized.	Number	2.00	6	5	4	3	2
		[4.6] Comparison of conventional and tissue culture raised plants will be done for increase in yield / biomass.	[4.6.1] %age increase in yield / biomass.	%	1.00	5	4	3	2	0
		[4.7] Updation of a database for research work done in the area of biotechnology in the	[4.7.1] Timely updation of database of bio-technologists.	Date	2.00	10/03/2014	15/03/2014	20/03/2014	25/03/2014	31/03/2014

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

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		State.								
[5] Encourage utilization of remote sensing and GIS techniques for overall developmental planning of the State.	25.00	[5.1] No. of collaborating organizations using GIS techniques.	[5.1.1] Number of organizations collaborated.	Number	3.00	8	7	6	5	4
		[5.2] Preparation of project proposals for the identified tasks of the users.	[5.2.1] Number of projects approved.	Number	3.00	5	4	3	2	1
		[5.3] Generation of geospatial information as per the needs of the users	[5.3.1] Number of projects completed as per the user satisfaction	Number	8.00	5	4	3	2	1
		[5.4] To impart training to user department officials, college and school teachers.	[5.4.1] No. of persons trained.	Number	3.00	120	100	80	60	40
		[5.5] To impart training to students.	[5.5.1] No. of students trained.	Number	3.00	300	270	240	210	180
		[5.6] Planned targets for land records in the State.	[5.6.1] No. of villages for which mussavies updated.	Number	1.00	6000	5000	4000	3000	2000
		[5.7] Geo-linking of Right of Record with updated Digitized maps	[5.7.1] No. of villages for which RoRs Geo-Linked	Number	1.00	6000	5000	4000	3000	2000
		[5.8] Existing documents scanning, indexing and coding	[5.8.1] No. of villages for which revenue documents scanned, indexed and coded	Number	1.00	6000	5000	4000	3000	2000

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

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		[5.9] Tertiary control points establishment and DGPS survey	[5.9.1] No. of villages for which tertiary control points establishment and survey completed	Number	1.00	6000	5000	4000	3000	2000
		[5.10] Photogrammetric processing of satellite data	[5.10.1] No. of villages for which photogrammetric processing completed	Number	1.00	6000	5000	4000	3000	2000
* Efficient Functioning of RFD.	4.00	Timely submission of draft approval.	On-time submission.	Date	2.0	25/04/2013	30/04/2013	03/05/2013	07/05/2013	10/05/2013
		Finalize a strategic plan.	Finalize the strategic plan for the next year.	Date	2.0	24/02/2014	25/02/2014	26/02/2014	27/02/2014	28/02/2014
* Improving internal efficiency/Responsiveness/Services delivery of Departments	6.00	Delivery of RFD's for all responsibility centers.	percentage of RCc covered	%	2.0	100	90	80	70	60
		Implementation of Harsamadhan	Percentage of complaints resolved within prescribed timeline.	%	2.0	100	90	80	70	60
		Delivery of services as per citizen charter.	Percentage of targeted services	%	2.0	100	90	80	70	60

\* Mandatory Objective(s)

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
[1] Promotion of scientific temper among general masses	[1.1] Popularization of science through annual quiz & essay contests for college and school students.	[1.1.1] Timely execution of the contests.	Date	--	30/01/2013	15/02/2014	--	--
	[1.2] No. of schools/colleges participating in districts covered.	[1.2.1] No. of schools/colleges participating	Number	--	1070	945	--	--
	[1.3] No. of students participating in these State level contests	[1.3.1] No. of students participating	Number	--	4460	3780	--	--
	[1.4] Increase in enrollment in science stream in colleges / universities of Haryana.	[1.4.1] %age increase	%age	--	--	4	--	--
	[1.5] Introducing the programme for developing scientific temper as per the concept note prepared during 2012-13.	[1.5.1] Timely introduction	Date	--	--	15/03/2014	--	--
[2] Promotion and improvement in quality of science education in the State.	[2.1] No. of research fellowships awarded & timely release of scholarships.	[2.1.1] No. of research fellowships offered	Number	--	20	20	--	--
		[2.1.2] Timely release of POSE scholarships	Date	--	14/02/2013	28/02/2014	--	--
[3] Support and promote innovation in the State.	[3.1] R&D targets specifying areas of technology research.	[3.1.1] No. of R&D projects approved.	Number	--	4	3	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	[3.2] percentage of ongoing R&D projects meeting the pre agreed milestones.	[3.2.1] % of R&D projects meeting the targets	%	--	100	90	--	--
	[3.3] No. of new / ongoing collaborations with leading national / international institutions.	[3.3.1] Number of collaborations	Number	--	5	4	--	--
	[3.4] Scheme for putting useful innovation into commercial use.	[3.4.1] No. of new technologies identified for deployment next year.	Number	--	--	4	--	--
[4] Encourage research in biotechnology.	[4.1] No. of new areas identified.	[4.1.1] No. of research protocol developed.	Number	--	3	2	--	--
	[4.2] No. of high quality plants produced.	[4.2.1] No. of high quality plants produced.	Number	--	50000	45000	--	--
	[4.3] No. of scientists working in this area of plant biotechnology.	[4.3.1] No. of scientists working	Number	--	4	3	--	--
	[4.4] Training imparted to various categories like farmer, students, entrepreneurs, corporate, etc.	[4.4.1] No. of persons trained	Number	--	50	45	--	--
	[4.5] No. of products commercialized.	[4.5.1] No. of products commercialized.	Number	--	6	5	--	--
	[4.6] Comparison of conventional and tissue culture raised plants will be done for	[4.6.1] %age increase in yield / biomass.	%	--	--	4	--	--



### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	increase in yield / biomass.							
	[4.7] Updation of a database for research work done in the area of biotechnology in the State.	[4.7.1] Timely updation of database of bio-technologists.	Date	--	08/03/2013	15/03/2014	--	--
[5] Encourage utilization of remote sensing and GIS techniques for overall developmental planning of the State.	[5.1] No. of collaborating organizations using GIS techniques.	[5.1.1] Number of organizations collaborated.	Number	--	9	7	--	--
	[5.2] Preparation of project proposals for the identified tasks of the users.	[5.2.1] Number of projects approved.	Number	--	7	4	--	--
	[5.3] Generation of geospatial information as per the needs of the users	[5.3.1] Number of projects completed as per the user satisfaction	Number	--	4	4	--	--
	[5.4] To impart training to user department officials, college and school teachers.	[5.4.1] No. of persons trained.	Number	--	90	100	--	--
	[5.5] To impart training to students.	[5.5.1] No. of students trained.	Number	--	--	270	--	--
	[5.6] Planned targets for land records in the State.	[5.6.1] No. of villages for which mussavies updated.	Number	--	--	5000	--	--
	[5.7] Geo-linking of Right of Record with updated Digitized maps	[5.7.1] No. of villages for which RoRs Geo-Linked	Number	--	--	5000	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	[5.8] Existing documents scanning, indexing and coding	[5.8.1] No. of villages for which revenue documents scanned, indexed and coded	Number	--	--	5000	--	--
	[5.9] Tertiary control points establishment and DGPS survey	[5.9.1] No. of villages for which tertiary control points establishment and survey completed	Number	--	--	5000	--	--
	[5.10] Photogrammetric processing of satellite data	[5.10.1] No. of villages for which photogrammetric processing completed	Number	--	--	5000	--	--
* Efficient Functioning of RFD.	Timely submission of draft approval.	On-time submission.	Date	--	--	30/04/2013	--	--
	Finalize a strategic plan.	Finalize the strategic plan for the next year.	Date	--	--	25/02/2014	--	--
* Improving internal efficiency/Responsiveness/Services delivery of Departments	Delivery of RFD's for all responsibility centers.	percentage of RCc covered	%	--	--	90	--	--
	Implementation of Harsamadhan	Percentage of complaints resolved within prescribed timeline.	%	--	--	90	--	--
	Delivery of services as per citizen charter.	Percentage of targeted services	%	--	--	90	--	--

\* Mandatory Objective(s)

## Section 4: Acronym

Sl.No	Acronym	Description
1	CBSE	Central Board of Secondary Education
2	CPB	Center for Plant Biotechnology, Hisar
3	CSIR	Council of Scientific and Industrial Research
4	DGPS	Differential Global Positioning System
5	GIS	Geographic Information System
6	HARSAC	Haryana Space Application Center, Hisar

**Section 4:  
Acronym**

Sl.No	Acronym	Description
7	HSCST	Haryana State Council for Science and Technology, Panchkula
8	ICSE	Indian Certificate of Secondary Education
9	JRF	Junior Research Fellow
10	NET	National Eligibility Test
11	POSE	Promotion of Science Education Scholarship Scheme
12	R&D	Research and Development

## Section 4: Acronym

Sl.No	Acronym	Description
13	SRF	Senior Research Fellow
14	UGC	University Grants Commission

## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
1	[1.1.1] Timely execution of the contests.		The annual quiz and essay contests are organized separately for the school and college students. Further, the quiz contests at school level are organized for the schools of Haryana Board and CBSE/ICSE separately.	Date of completion of the contests.	
2	[1.2.1] No. of schools/colleges participating		Participation of about 50 schools / colleges per districts in the essay and quiz contests are targeted.	Number of schools / colleges	
3	[1.3.1] No. of students participating		In quiz and essay contests participation of about four students per school/college are being targeted.	Number of participating students	
4	[1.4.1] %age increase		The data of students enrolled in undergraduate science courses will be obtained from the Higher Education Department and the comparison for %age increase / decrease from previous years will be made to observe the impact of various science	%age increase in enrollment	

## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
4	[1.4.1] %age increase		popularization activities.	%age increase in enrollment	
5	[1.5.1] Timely introduction		Programmes for developing scientific temper among general masses as per the concept note prepared during 2012-13 will be implemented during the current year.	Date	
6	[2.1.1] No. of research fellowships offered		The department awards research fellowships on UGC pattern to the students pursuing Ph.D. in Universities / Institutes of Haryana, on the basis of their performance in NET exam.	No. of research fellowships offered in the year.	
7	[2.1.2] Timely release of POSE scholarships		Handsome scholarships namely Promotion of Science Education (POSE) are offered to the B.Sc. (Honours) and M.Sc. students having opted the basic science subjects Physics, Chemistry, Botany, Zoology,	Date by which scholarships of selected students are released.	

## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
7	[2.1.2] Timely release of POSE scholarships		Mathematics and Geology.	Date by which scholarships of selected students are released.	
8	[3.1.1] No. of R&D projects approved.		To support the Research and Development activities, the department provides funds to the scientists of Universities / Research Organizations of the State depending upon the budget availability.	Number	
9	[3.2.1] % of R&D projects meeting the targets		While sanctioning the R&D projects, some predefined targets are set for the proponent and subsequent installments of the funds are released depending upon the performance / progress of the project.	%age	
10	[3.3.1] Number of collaborations		It is necessary to explore new association / collaboration with the Universities / Research organizations / District Administration for promotion and	Number	



## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
10	[3.3.1] Number of collaborations		popularization of science and technology	Number	
11	[3.4.1] No. of new technologies identified for deployment next year.		New technologies will be identified for deployment in the area of Energy, Education, Health, Water Supply etc.	Number	
12	[4.1.1] No. of research protocol developed.		Research protocols are required for the production of rare and elite genotypes of various types of horticultural, medicinal, forest and other crop plant species using tissue culture technology.	Number	
13	[4.2.1] No. of high quality plants produced.		High quality and disease free planting material will be produced through tissue culture and supplied to the farmers/users.	Number	

## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
14	[4.3.1] No. of scientists working		Scientists are required to develop the research protocols for production of high quality planting material of different plant species.	Number	
15	[4.4.1] No. of persons trained		Students, teachers, farmers etc. will be trained in the area of plant tissue culture to popularize this technology in the state.	Number	
16	[4.5.1] No. of products commercialized.		Newly developed research protocols will be used for commercial production of high quality and disease free planting material	Number	
17	[4.6.1] %age increase in yield / biomass.		The methodology developed during last year for monitoring the economic benefits of biotechnology will be implemented for comparison of %age increase in yield / biomass of tissue culture raised plants than the conventional ones.	%age increase	

## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
18	[4.7.1] Timely updation of database of bio-technologists.		The data of the scientists of the region working in the field of bio-technology collected by CPB during previous year will be regularly updated and expanded to make a useful database.	Date	
19	[5.1.1] Number of organizations collaborated.		The collaborations are planned to facilitate the planning process of various user department and to promote G-governance.	Number	
20	[5.2.1] Number of projects approved.		Different applications in respective areas for the user departments are identified.	Number	
21	[5.3.1] Number of projects completed as per the user satisfaction		Applications in respective areas for the user departments are developed.	Number	
22	[5.4.1] No. of persons trained.		The trainings are arranged for creating awareness and capacity building in various user departments for utilization of Remote	Number	

## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
22	[5.4.1] No. of persons trained.		Sensing and GIS techniques.	Number	
23	[5.5.1] No. of students trained.		The trainings are arranged for students to sensitize them towards applications of Remote Sensing and GIS techniques.	Number	
24	[5.6.1] No. of villages for which mussavies updated.		The mussavies are to be provided by the DROs / field staff of Revenue Department for every village of the State.	Number	
25	[5.7.1] No. of villages for which RoRs Geo-Linked		The record of rights will be Geo-linked with updated digitized maps.	Number of villages for which the Geo-linking done.	
26	[5.8.1] No. of villages for which revenue documents scanned, indexed and coded		Scanning, indexing and coding of mussavies of all the villages will be done.	Number	

## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
27	[5.9.1] No. of villages for which tertiary control points establishment and survey completed		Tertiary control points will be established in each village and survey work will be done.	Number of villages	
28	[5.10.1] No. of villages for which photogrammetric processing completed		Standardization of all the mussels for villages will be done.	Number of villages	

## Section 5 : Specific Performance Requirements from other Departments

Location Type	State	Organisation Type	Organisation Name	Relevant Success Indicator	What is your requirement from this organisation	Justification for this requirement	Please quantify your requirement from this Organisation	What happens if your requirement is not met.
State Government	Haryana	Departments	School Education	[1.1.1] Timely execution of the contests.  [1.2.1] No. of schools/colleges participating [1.3.1] No. of students participating	Timely organization at district level	In order to complete the competitions upto State Level well in time	Their cooperation will help in timely execution of the contests	The contests will be delayed.
			Higher Education	%age increase  [2.1.2] Timely release of POSE scholarships	Number of students enrolled in Under Graduate science courses  Timely receipt of applications through universities / colleges	To see the trend of enrolment towards science streams  To receive in time genuine applications	All type of related data, course wise, subject wise, category wise etc.  Applications from maximum eligible candidates	Trends and the impact of our programmes could not identified.  The release of scholarships will be delayed
			Revenue and Disaster Management	digitization of mussavies of the districts completed.  digitization of mussavies of the districts completed. [5.6.1] No. of villages for which mussavies updated.	All records related to cadastral maps and coordination from revenue officials  All the mussavies and related records and the necessary coordination from revenue officials.	To transform the analog system to digital system for effective Land Records Management	Revenue records of all the villages of the State  Revnuce records of all the villages of the State	The project progress will be delayed.

## Section 5 : Specific Performance Requirements from other Departments

Location Type	State	Organisation Type	Organisation Name	Relevant Success Indicator	What is your requirement from this organisation	Justification for this requirement	Please quantify your requirement from this Organisation	What happens if your requirement is not met.
---------------	-------	-------------------	-------------------	----------------------------	---	------------------------------------	---	--

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

Outcome/Impact of Department/Ministry	Jointly responsible for influencing this outcome / impact with the following department (s) / ministry(ies)	Success Indicator	Unit	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
1 Increase in enrollment in under graduate science stream in colleges / universities of Haryana.	Higher Education Department	Number of students taking admission in graduate courses in sciences	Number		70393	TBC		
2 Utilization of space technologies in developmental planning	All departments	Number of departments collaborated and adopting the GIS technologies for their overall planning	Number		4	7		
3 Computerization of land records.	Revenue Department	No. of villages targeted to complete.	Number			5000		
4 Planting of high yielding disease free plants.	Agriculture, Horticulture, Forests	No. of plants sold / distributed by CPB.	Number		50000	45000		
5 Preparation of protocols of high yielding disease free planting material.	Agriculture, Horticulture, Forests.	Number of protocols developed.	Number		3	2		
6 Facilitation in filing of patent applications.	State Universities, Academic Institutions, Education and Industries Department.	No. of patent applications filed.	Number			2		