



Results-Framework Document (RFD)

for

Directorate of Water Management (2014-2015)

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Section 1: Vision, Mission, Objectives and Functions

Vision

Sustainable development of on-farm water management technologies for enhanced agricultural productivity and improved livelihood under different agro-ecological regions.

Mission

Basic, applied and strategic research activities to address diversified water management issues with institutional linkages, infrastructural support and capacity building to achieve sustainability and growth.

Objectives

- Agricultural water management and conservation measures
- Enhancing water productivity
- Capacity building and human resources development

Functions

- To develop efficient utilization, management and conservation of on-farm water resources for sustainable agricultural production.
- To manage excess water in agricultural lands.
- To develop sustainable cropping systems in relation to the availability of water.
- Devising multiple uses of water in agricultural production programmes to enhance water productivity.
- To reuse poor quality groundwater, industrial and municipal waste waters.
- To disseminate technologies through peoples' participation.

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	Very good	Good	Fair	Poor
							100%	90%	80%	70%	60%
1	Agricultural water management and conservation measures	40	Improving irrigation practices	Technologies for enhancing irrigation efficiency to be developed	No.	14	3	2	1	0	-
			Judicious use of water	Technologies for enhancing water use efficiency to be developed through network projects and adaptive research	No.	13	3	2	1	0	-
			Water harvesting and groundwater recharge	Technologies for rainwater conservation and augmenting groundwater through recharge to be developed	No.	13	4	3	2	1	0
2	Enhancing water productivity	20	Multiple water uses	Models for improved water productivity to be developed	Date	13	January 31, 2015	February 15, 2015	February 28, 2015	March 15, 2015	March 31, 2015
				Strategies for use of wastewater in agriculture to be developed	Date	7	January 31, 2015	February 15, 2015	February 28, 2015	March 15, 2015	March 31, 2015
3	Capacity building and human resources development	20	Transfer of technology	Skill up-gradation of farmers and students	No.	14	18	15	12	9	6
				Knowledge of the scientists & officials to be updated	No.	6	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	23	19	15	11	7
			Timely publication of the Institute Annual Report (2013-2014)	Annual Report published	Date	2	June 30, 2014	July 02, 2014	July 04, 2014	July 07, 2014	July 09, 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 milestones of approved Mitigating Strategies for Reduction of potential risk of corruption (MSC)	% of Implementation	%	1	100	90	80	70	60
			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: Trend Values of the Success Indicators

S. No.	Objectives	Actions	Success Indicators	Unit	Actual value	Actual value	Target value	Projected value	Projected value
					2012-13	2013-14	2014-15	2015-16	2016-17
1	Agricultural water management and conservation measures	Improving irrigation practices	Technologies for enhancing irrigation efficiency to be developed	No.	2	2	2	3	3
		Judicious use of water	Technologies for enhancing water use efficiency to be developed through network projects and adaptive research	No.	1	1	2	3	3
		Water harvesting & groundwater recharge	Technologies for rainwater conservation and augmenting groundwater through recharge to be developed	No.	3	3	3	3	3
2	Enhancing water productivity	Multiple uses of water	Models for improved water productivity to be developed	Date	-	-	February 15, 2015	February 15, 2016	February 15, 2017
			Strategies for use of wastewater in agriculture to be developed	Date	-	-	February 15, 2015	February 15, 2016	February 15, 2017
3	Capacity building and human resources development	Transfer of technology	Skill up-gradation of farmers and students	No.	15	15	15	16	17
			Knowledge of the scientists & officials to be updated	No.	-	4	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.	24	19	19	20	21

		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	100	96	96	96
*	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
	Nil	Nil

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

S. No.	Success Indicator	Description	Definition	Measurement	General Comments
1	Technologies for enhancing irrigation efficiency to be developed	Pressurized irrigation systems like drip and sprinkler irrigation methods shall be evaluated.	Irrigation efficiency is to characterize irrigation performance, evaluate irrigation water use, and to promote better or improved use of water resources in agriculture.	Irrigation efficiencies will be measured through study of irrigation performance, irrigation water use etc.	Modern irrigation practices and management will yield better irrigation water use efficiency over the farmers' practices in agriculture.
2	Technologies for enhancing water use efficiency to be developed through network projects and adaptive research	Engineering with bio-engineering propositions shall be developed to enhance water use efficiency	Water use efficiency is defined as yield of plant product per unit of crop water use.	Water use efficiency will be measured through crop performance against total water use through evapo-transpiration.	This will help in enhancing agricultural crop water productivity and profitability.
3	Technologies for rainwater conservation and augmenting groundwater through recharge to be developed	Low cost location specific ground water recharge techniques shall be developed	Groundwater recharge is a hydrologic process where water moves downward from surface water to groundwater.	Groundwater recharge measurement will be studied through development of location specific filter systems.	Groundwater recharge technique shall help in augmenting the groundwater table through minimization of surface runoff.
4	Models for improved water productivity to be developed	Models shall be conceptualized, developed and evaluated for multiple uses of water	Multiple use of water are low-cost, equitable water use models that provide water for both domestic needs and high-value agricultural production including rearing of livestock.	Under multiple use managements total water use against production of various components will be measured.	This system will help in livelihood improvement, assured production in adverse conditions as well as creation of water resources.
5	Strategies for use of wastewater in agriculture to be developed	The use of waste water in agriculture shall be addressed to enhance water productivity	Waste water is the marginally polluted water having potentiality of reusing in agriculture.	Waste water quality parameters will be measured using standard methods following	To reduce dependency on surface and groundwater, use of treated waste water in agriculture can be a viable proposition.

				recommended guidelines.	
6	Skill up-gradation of farmers and students	In order to disseminate the various developed on-farm technologies, the training programmes for the farmers and students shall be undertaken.	Transfer of technology through training and demonstration is the process of transferring skills, knowledge, technologies, methods etc to a wider range of users.	Impact assessment of training and demonstration will be measured through systematic questionnaire feedback approach.	Training and demonstration are the effective tools in rapid dissemination of technologies to end user level for enhancing agricultural productivity.
7	Knowledge of the scientists & officials to be updated	Knowledge of the scientists and officials shall be developed on recent advancement techniques through various training programmes.	Human resource development is a framework for the expansion of human capital within an organization through the development of both the organization and the individual to achieve performance improvement	Enhanced knowledge will be measured through aided trainings on new and emerging subjects/tools.	This will update and enhance the existing knowledge level of scientific and other officials of the organization.

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
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

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

S. No.	Outcome / Impact	Jointly responsible for influencing this outcome / impact with the following organization (s) / departments / ministry (ies)	Success Indicators	Unit	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
1	Enhancing agricultural water productivity through multiple uses and improving livelihood	Departments of agriculture / water resources of state Governments	Increase in agriculture productivity through judicious utilization of water	%	2	2	2	2	2
			Enhancement in adoption of drip and sprinkler system	%	15	16	17	17	17