



Results - Framework Document (RFD)

for

National Research Centre on Mithun (2013-2014)

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Section 1: Vision, Mission, Objectives and Functions

Vision

- Profitable and productive Mithun based livestock production system for North Eastern hilly tribes

Mission

- To develop and facilitate dissemination of technologies relevant to efficient and profitable production of quality meat, milk and other products for improving the economic status of poor Mithun rearers of North Eastern region of our country.

Objectives

- Genetic studies for improvement of Mithuns
- Improving reproductive, productive efficiency and health status of Mithun
- Transfer of technology

Functions

- Identification, evaluation, and characterization of Mithun germplasm available in the country
- Conservation and improvement of Mithun for meat and milk
- To act as a repository of germplasm and information centre on Mithun

Section 2: Inter se priorities among key objectives, success indicators and targets.

Sl.No	Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target/Criteria value				
							Excellent	Very Good	Good	Fair	Poor
							100%	90%	80%	70%	60%
1	Genetic studies for improvement of Mithuns	20	Selection of Mithun bulls/females with desirable phenotypic traits	Mithuns selected with desirable phenotypic traits	Number	10	5	4	3	2	1
			Identification of SNPs/ polymorphism in leptin gene of Mithun	Sequencing and analysis of Mithun data for SNPs	Number	10	25	20	15	10	5
2	Enhancing reproductive, productive efficiency and health status of Mithun	55	Evaluation of feed blocks in terms of nutrient utilization	Types of feed block	Number	15	5	4	3	2	1
			Evaluation of physical and biochemical parameters of Mithun semen	Bulls semen studied	Number	10	8	6	5	4	3
			Cryo-preservation of Mithun bull semen	Semen straws cryo-preserved	Number	10	1500	1200	1000	800	500
			Evaluation of efficacy of chemotherapeutic and herbal drugs against GI helminths	Drugs tested	Number	10	5	4	3	2	1
			Survey for prevalence of common disease condition	Animals surveyed	Number	10	400	300	250	200	100
3	Transfer of technology	14	Survey of Mithun rearing villages and interaction with Mithun rearing tribes for creating awareness about scientific animal husbandry practices	Villages surveyed	Number	5	4	3	2	1	0
			Demonstration of technologies developed for Mithun husbandry and organization of health camps.	Technology and health camps organized	Number	9	10	8	3	2	1
	Efficient Functioning of	3	Timely submission of Draft RFD (2013-14) for approval	On-time submission	Date	2	15.5.13	16.5.13	17.5.13	20.5.13	21.5.13

	the RFD System		Timely submission of Results for RFD (2012-13)	On-time submission	Date	1	1.5.13	2.5.13	5.5.13	6.5.13	7.5.13
	Administrative 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	30.7.13	10.8.13	20.8.13	30.8.13	10.9.13
	Improving internal efficiency / responsiveness / 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 03: Trend values of the success indicators

Sl.No.	Objectives	Actions	Success Indicators	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	Genetic studies for improvement of Mithuns	Selection of Mithun bulls/females with desirable phenotypic traits	Mithuns selected with desirable phenotypic traits	Number	2	4	4	6	7
		Identification of SNPs/polymorphism in leptin gene of Mithun*	Sequencing and analysis of Mithun data for SNPs	Number	-	25	20	-	-
2	Enhancing reproductive, productive efficiency and health status of mithun	Evaluation of feed blocks in terms of nutrient utilization*	Types of feed block	Number	6	4	4	-	-
		Evaluation of physical and biochemical parameters of Mithun semen	Bulls semen studied	Number	-	8	6	7	8
		Cryo-preservation of Mithun bull semen	Semen straws cryo-preserved	Number	-	-	1200	1500	2000
		Evaluation of efficacy of chemotherapeutic and herbal drugs against GI helminthes*	Drugs tested	Number	3	4	4	-	-
		Survey for prevalence of common disease condtion	Animals surveyed	Number	440	400	300	450	500
3	Transfer of technology	Survey of Mithun rearing villages and interaction with Mithun rearing tribes for creating awareness about scientific animal husbandry practices	Villages surveyed	Number	2	2	3	4	5
		Demonstration of technologies developed for Mithun husbandry and organization of health camps.	Technology and health camps organized	Number	4	5	8	9	10
	Efficient Functioning of the RFD System	Timely submission of Draft RFD (2013-14) for approval	On-time submission	Date	-	21.3.12	16.5.13	-	-
		Timely submission of Results for RFD (2012-13)	On-time submission	Date	-	26.4.13	2.5.13	-	-

	Administrative Reforms	Implement ISO 9001 as per the approved action plan	% Implementation	%	-	-	95	-	-
		Prepare an action plan for Innovation	On-time submission	Date	-	-	10.8.13	-	-
	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	-	-

*Objective to be discontinued from 2014-15

Section 4: Acronym

Sl. No.	Acronym	Description
1	A.H.	Animal Husbandry
2	NGOs	Non-Governmental Organizations
3	SAUs	State Agricultural Universities
4	KVKs	Krishi Vigyan Kendras
5	SNP	Single Nucleotide Polymorphism
6	GI	Gastro Intestinal
7	AI	Artificial Insemination
8.	NEH	North Eastern Hill

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

Sl. No.	Success Indicator	Description	Definition	Measurement	General Comments
1	Mithuns selected with desirable phenotypic traits	Selection of mithuns with desirable phenotypic traits will be done from animals under field and these improved mithuns, particularly mithun bulls will be used for breeding purposes for Improvement of both farm and field animals in participatory mode with local tribal communities in the native tracts of mithuns.	The mithun populaiton of the country needs to be improved genetically as well as need conservation for future use as number of mithun population is decreasing over the years in most areas.	Number	The mithun population in the native tracts of mithun needs to be genetically improved with unique characters and to have a suitable breeding plan for their improvement / conservation.
2	Sequencing and analysis of Mithun data for SNPs	Screening of mithun population will be made for identification of SNPs in leptin gene of mithun and to find out if there is any association with growth traits with these SNPs	Leptin is an important gene controlling growth, feed intake and other metabolic parameters of animals	Number	As Mithuns are used mostly as meat animals, study of leptin gene of Mithun will be useful to select animals with better growth rate, more body weight and higher feed conversion efficiency.
3	Types of feed block	Different types of feed blocks will be prepared from locally available feed resources for economic feeding of mithuns	Feed blocks prepared from locally available feed resources are important for rearing mithuns under semi-intensive system of management	Number	Preparation of low-cost feed block for Mithun using locally available feed resources will improve production efficiency in Mithuns.
4	Bulls semen studied	Semen collection through rectal massage method is standardized. Biochemical and physical profile of semen will be studied. Hormone profile of breeding mithun bulls will	Biochemical and hormonal profile of mithun bull semen	Number	Study of biochemical and physical parameters will be useful to formulate suitable mithun semen extender

		be studied			
5	Semen straws cryo-preserved	Cryo-preservation of semen of mithun bulls are already standardized and accordingly, more number of semen doses will be cryo-preserved for breeding purpose both in the farm and field conditions	Mithun semen will be cryo-preserved in liquid nitrogen	Number	Cryo-preservation of Mithun semen will be useful to study the freeze-ability of the Mithun sperm and to use these semen straws for breeding programme.
6	Drugs tested	Different drugs will be tested in different doses for their efficacy against various GI helminths of mithuns	GI helminthiasis is a common problem in mithuns and need to be controlled effectively.	Number	It will be useful in preparing the deworming schedule and calendar for the control of GI helminths.
7	Animals surveyed	Survey will be made in randomly selected villages across the Nagaland state and samples will be collected for the investigation of the prevalence and incidence of common diseases in farm and field condition.	Investigation of various diseases commonly affecting mithuns.	Number	It will be useful in preparing the disease map of the state for Mithuns.
8	Villages surveyed	Villages in the mithun rearing area will be surveyed to collect information of traditional mithun rearing practices as well as introducing new technologies for the benefits of mithuns and their owners	Proper survey methodology will be followed and information will be collected and analyzed.	Number	Transfer of technology through extension activities will be important for identification of risk factors and barriers for successful transfer of technology developed by the Institute and strategies for addressing them.
9	Technology and health camps organized	Technology injection programme will be taken up in the mithun rearing area for demonstration of various technologies developed by the Institute over the years	Technology injection programme will be taken up in the mithun rearing area for demonstration of various technologies developed by the Institute	Number	Animal health cum vaccination camp will be organized in randomly selected village for control of parasites and Foot and Mouth disease.

Section 5: Specific performance requirements from other Departments/Agencies 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	What happens if your requirement is not met
STATE	Nagaland Arunachal Pradesh Manipur Mizoram	State departments of AH, SAUs, KVKs and NGOs	SAUs/State departments of AH, KVKs and NGOs	Mithuns selected with desirable phenotypic traits	Collaboration for undertaking work defined for the success indicator	Mithuns are available only in four NEH states and mutual cooperation of State AH Dept, SAUs, NGO, KVKs. is very important for success of the programmes	Cannot be quantified at this stage and will depend on case to case basis	The target value may not be achieved
STATE	Nagaland Arunachal Pradesh Manipur Mizoram	State departments of AH, KVKs and NGOs	SAUs/State departments of AH, KVKs and NGOs	Animals surveyed	Collaboration for undertaking work defined for the success indicator	Mithuns are available only in four NEH states and mutual cooperation of State AH Dept, SAUs, NGO, KVKs. is very important for success of the programmes	Cannot be quantified at this stage and will depend on case to case basis	The target value may not be achieved
STATE	Nagaland Arunachal Pradesh Manipur Mizoram	State departments of AH, KVKs and NGOs	SAUs/State departments of AH, KVKs and NGOs	Technology and health camps organized	Collaboration for undertaking work defined for the success indicator	Mithuns are available only in four NEH states and mutual cooperation of State AH Dept, SAUs, NGO, KVKs. is very important for success of the programmes	Cannot be quantified at this stage and will depend on case to case basis	The target value may not be achieved

Section 6: Outcome / Impact of activities of organization/ Ministry.

Sl. No	Outcome / impact of organisation / RCs	Jointly responsible for influencing this outcome / impact with the following organisation/mini-stry (ies)	Success indicator (s)	Unit	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
1	Genetic studies for improvement of Mithuns	State Vety & AH Department, Nagaland	Number of mithun bulls/females selected with desirable phenotypic traits	Number	2	4	5	6	7
2	Improving the health status of Mithun	State Vety & AH Department, Nagaland	Percent reduction in helminthiasis in the farm and field	%	1.0	2.0	2.5	3.0	3.5