

## Theme wise Ongoing Research Projects 2024-25

*During IRC meeting 2024 five Themes along with Theme leaders were finalized which are mentioned below*

Sl. No.	Project code	Project Title	Name of PI & Co-PI	Start year	Comp Year	Funding agency	Remarks
<b>Theme 1. Farming System Research including Climate Resilient Agriculture</b> <b>Theme Leader: Head, Division of Crop Research</b>							
<b>1.0 Integrated Farming System and Cropping System for Eastern Region</b>							
1.1	ICAR-RCER/AICRP/IFS/EF/2010/ <b>25(i)</b>	Development of location specific Integrated Farming System models for small and marginal farmers of Bihar	Sanjeev Kumar A. Dey Ujjwal Kumar Kamal Sarma Shivani Ajay Kumar R.K.Raman Rachana Dubey A K Dubey Kirti Saurabh Kumari Shubha Saurabh Kumar Abhishek Kumar	June 2010	Sep. 2025	AICRP on IFS	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> <li>• Comparison of IFS Vs. farmers practice.</li> <li>• Name of Dr. Md. Monobrullah to be dropped due to his transfer.</li> <li>• Name of Dr. N. Chandra to be dropped due to his superannuation.</li> </ul>
1.2	ICAR-RCER/RC Ranchi/2019/ <b>225</b>	Evaluation of organic and Natural Farming for Eastern Plateau and Hill Region”	B.K. Jha S.K. Naik A. K. Jha S.S. Mali J.S. Choudhary	2019	2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• The application dose of all the preparations used in natural farming should be consistent in both Patna and Ranchi Center</li> <li>• One publication from this project needs to be submitted in six months.</li> <li>• Name of Dr. D. K. Raghav to be dropped due to his selection at KVK, Malda</li> </ul>

1.3	ICAR-RCER/ DLWM / 2022/ 272	Studies on efficacy of natural farming and comparison with existing farming	Shivani A. Upadhyaya Kirti Saurabh Pawan Jeet Rachana Dubey Ved Prakash Rakesh Kumar, DLFM R K Raman Sonaka Ghosh Santosh Kumar A.K. Dubey Saurabh Kumar	2022	2028	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory &amp; modify the treatments as per IRC recommendations.</li> <li>• Dr. Saurabh Kumar to be included as Co-PI.</li> <li>• Name of Dr. Md. Monobrullah to be dropped due to his transfer.</li> </ul>
1.4		Optimization of integrated farming system model design	Manibhushan A Upadhyaya Sanjeev Kumar Akram Ahmed	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory &amp; Project to be continued</li> <li>• Study and validation of the model is to be done by involving 10 different farmers (5 each from 2 villages)</li> </ul>
1.5		Development of sustainable Agroforestry models for Bihar's seasonally water-stressed agro-ecosystem	Abhishek Kumar Rakesh Kumar (Agronomy) Kirti Saurabh Mahesh Dhakar Sanjeev Kumar	2023	2027	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory &amp; to be continued</li> <li>• Name of Dr. Md. Monobrullah to be dropped due to his transfer.</li> <li>• Dr. Sanjeev Kumar to be included as Co-PI.</li> </ul>
1.6		Standardization of organic farming practices for middle Indo-Gangetic Plains	Kirti Saurabh Kumari Shubha A K Dubey Manisha Tamta Govind Makarana Abhishek Kumar (Farm Section)	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Come out with efficient management practices and suitable crops/ cropping systems, soil data after each year</li> </ul>
1.7		Pilot project for crop diversification	Sanjeev Kumar Md. Monobrullah* Rakesh Kumar Dhiraj Kr. Singh Kirti Saurabh Akram Ahmed A.K. Dubey Abhishek Kumar G. Makarana Arvind K Singh** (KVK, Piprakothi)	2023-24	2027-28	DA&FW, MoA, GoI	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> <li>*Subject to consent from Director, ATARI, Patna.</li> <li>** Subject to consent from Director Extn., DRPCA, Pusa.</li> </ul>

1.8		FLD on Mustard	Sanjeev Kumar Rakesh Kumar Shivani Dhiraj Kr. Singh A. K. Dubey Abhishek Kumar	Oct. 2023	2024	DRMR, Bharatpur	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> <li>• Extension accepted for one year</li> </ul>
1.9	--	Sustainable fodder production system under different nitrogen and zinc management practices in eastern India	G. Makarana Sanjeev Kumar A. Dey Saurabh Kumar	2021	2024 Extd 2025	ICAR- RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for one year</li> <li>• Take the field experiment at Sabajpura farm (near Arhar plot)</li> </ul>
<b>2.0</b>	<b>Resource Conservation Technology</b>						
2.1	ICAR- RCER/ DCR/E F/ 2015 / 40	Evaluation of Conservation Agricultural (CA) practices under Rice-fallow system of Eastern Region	Rakesh Kumar B. K. Jha S. K. Naik S.S. Mali Rachana Dubey	2015	2026	Consortium Research Platform on CA (ICAR)	<ul style="list-style-type: none"> <li>• Progress Satisfactory and to be continued.</li> </ul>
2.2	ICAR- RCER/ DCR/E F/ 2016/	Cereal Systems Initiative for South Asia (CSISA) Phase III	Rakesh Kumar Rachana Dubey G. Makarana Saurabh Kumar J.S.Choudhary Kirti Saurabh	2016	Dec. 2021 Extd. March 2025	CIMMYT	<ul style="list-style-type: none"> <li>• Progress Satisfactory and to be continued.</li> <li>• Suggested for complete enzymatic studies, soil carbon sequestration upto 1 metre depth, water budgeting/ productivity in different systems.</li> <li>• Publication of one bulletin showing progress since project inception till date by foundation day.</li> </ul>
2.3	--	Network project on Conservation of lac insect genetic resources (NPCLIGR)	Abhishek Kumar Md. Monobrullah*	Jan. 2019	Dec., 2024 Extd. 2026	AINP on CLIGR	<ul style="list-style-type: none"> <li>• Progress satisfactory and Project extended for 2 years.</li> <li>• *Subject to consent from Director, ATARI, Patna.</li> </ul>
<b>3.0</b>	<b>Climate Resilient Agriculture</b>						
3.1	ICAR-	Climate	Project Leader -	Nov.	Mar.	Govt. of	<ul style="list-style-type: none"> <li>• Progress</li> </ul>

	RCER/ DSEE/ EF/ 2019/	Resilient Agriculture Programme	Dr Anup Das PI- Dr Abhay Kumar Ujjwal Kumar Md. Monobrullah P.K. Sundaram Rakesh Kumar Dhiraj Kr Singh Santosh Kumar Rachana Dubey R.K. Raman A Mukherjee Manisha Tamta Saurabh Kumar Kirti Saurabh Ramkewal Banda Sainath Sarfaraj Ahmad	2019	2025	Bihar	satisfactory and to be continued.  <ul style="list-style-type: none"> <li>• Make a bulletin to highlight CRA as per suggestions in six months.</li> <li>• Make teams for writing research paper, bulletin, leaflet etc.</li> </ul>
3.2		Development of Weather based Agriculture Advisory System	Manisha Tamta Ved Prakash Manibhushan Ajay Kumar Sanjeev Kumar Kumari Shubha A K Dubey Rakesh Kumar (Animal Science) R K Raman S K Ahirwal T K Koley A Mukherjee	2023	2026	ICAR- RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>
3.3		Rice- Fallow Management (Umbrella Project)	<b>Project leader:</b> Dr. Anup Das Nodal officer: Sanjeev Kumar <b>PI:</b> Rakesh Kumar Ajay Kumar Akram Ahmed Manibhushan K. Banerjee* (ICAR MGIFRI) Dhiraj Kr. Singh P. K. Sundaram Santosh Kumar Pawan Jeet Kirti Saurabh Kumari Shubha Rakesh Kumar, (DLFM)	2023	2027	ICAR- RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Explore yield maximization</li> <li>• Develop rain water harvesting structure in water stressed areas</li> <li>• Comparative table of Rice fallow area</li> <li>• Prepare leaflet on Pigeonpea grown on bunds</li> <li>• Include team for R-F characterization by 6 months.</li> <li>• *Subject to consent</li> </ul>

			S K Ahirwal Ved Prakash <b>FSRCHPR Team</b> B K Jha S K Naik SS Mali J S Choudhary				from Director, MGIFRI, Motihari.
3.4	--	Weed seed bank dynamics, resource-use efficiency and greenhouse gas foot print under diverse tillage production systems in Eastern Indo-Gangetic Plains	Sonaka Ghosh Rakesh Kumar Rachana Dubey R. K. Raman Saurabh Kumar	July 2021	June 2024 Extd. Dec. 2024	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for six months.</li> </ul>

**Theme- 2. Genetic Resource Management and Improved Production Technologies**  
**Theme Leader: Head, FSRCHPR, Ranchi**

<b>4.0</b>	<b>Varietal Development</b>						
4.1	ICAR-RCER / HARP/ 2001/ 03	Plant genetic resource and improvement of fruit crops	M.K. Dhakar J. S. Choudhary D. Kherwar T.K. Koley Victor T.	2001	Long term	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Dr. T Koley and Mr. Victor T. to be included as Co-PI</li> <li>• Dr T.K. Koley: Collection of trait specific fruit germplasm from Bihar and West Bengal.</li> <li>• Mr. Victor T: Collection of trait specific fruit germplasm from Jharkhand</li> </ul>
4.2	Umbrella project on plant genetic resource and improvement of vegetable crops						
4.2.1	ICAR-RCER/ RC Ranchi/ 2017/2	Genetic resource management of vegetable crops	A.K. Singh P. Bhavana R. S. Pan V.K. Yadav J.S. Chaudhary	Sept 2017	Long term project	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Project number 4.3 to be merged</li> </ul>

	<b>15</b>		A.K.Jha Meenu Kumari				with it. <ul style="list-style-type: none"> <li>• Dr. P. Bhavana will assume the role of PI following superannuation of Dr. A.K. Singh.</li> <li>• Dr. Meenu Kumari to be included as Co-PI</li> </ul>
4.2.2	--	Evaluation of vegetable soybean for horticultural and nutritional traits	R S Pan Meenu Kumari Reshma Shinde Sujit Bishi* (ICAR-IIAB, Ranchi)	July 2021	June 2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Write a bulletin on 'Vegetable Soybean-A wonder crop for entrepreneurship' within 6 months.</li> <li>• Give material for newsletter</li> <li>• *Subject to consent from Director, IIAB, Ranchi.</li> </ul>
4.2.3		Improvement of French bean for disease resistance	Meenu Kumari R.S. Pan A. K. Jha J.S. Chaudhary	July 2021	June 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Submit one paper as first author till next IRC.</li> </ul>
4.2.4	--	Genetic enhancement of selected vegetable legumes for Eastern India	Kumari Shubha A.K. Choudhary A.K. Dubey R.S. Pan V.K. Padala	2021	2024 Extd. 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be extended for one year</li> </ul>
4.3	ICAR-RCER/ RC Ranchi/ 2019/ <b>226</b>	Development of multiple disease resistant hybrids in solanaceous vegetables	P. Bhavana A.K. Singh A.K. Jha J.S. Choudhary	2019	2024	ICAR-RCER	Project merged with <b>4.2.1</b> 'Genetic resource management of vegetable crops'
4.4	ICAR-RCER/ RC Ranchi/ 2020/ <b>244</b>	Genetic enhancement of pigeon pea for yield and biotic stress resistance	P. Bhavana Kishor Tribhuvan* (ICAR-IIAB) J S Choudhary A.K. Jha	June 2020	Dec 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> <li>• *Subject to consent from Director, IIAB.</li> </ul>
4.5	--	IRRI NARES	Santosh Kumar	July	Dec	ICAR-	<ul style="list-style-type: none"> <li>• Progress</li> </ul>

		Breeding Network (Plant Direct) Project (Erstwhile Accelerated Breeding: Meeting Farmers Needs with Nutritious, Climate-Resilient Crops)	Rakesh Kumar A K Dubey Sonaka Ghosh	2022	2027	IRRI	satisfactory and to be continued.
4.6		Evaluation and characterization of rice genotypes for tolerance to drought and submergence	Santosh Kumar Abhay Kumar Rakesh Kumar Rachana Dubey	July 2023	June 2026	ICAR-RCER	<ul style="list-style-type: none"> <li>Progress satisfactory and to be continued.</li> </ul>
4.7		Studies on genetic variability and molecular marker associated with Maydis leaf blight in maize	P. Bhavana A. K. Jha Santosh Kumar A. K. Dubey Ganpati Mukri* (IARI, New Delhi) Jayant S Bhat* (IARI, RRC, Dharwad) Chikkappa G K*, IIMR, Begusarai	2023	2027	ICAR-RCER	<ul style="list-style-type: none"> <li>Progress satisfactory and to be continued.</li> <li>Dr. Chikkappa G K, IIMR, Begusarai to be included as Co-PI.</li> <li>Name of Dr. A Dey to be dropped.</li> <li>*Subject to approval of respective Directors.</li> </ul>
<b>5.0</b>	<b>Production Technologies</b>						
5.1	--	Creation of seed hubs for increasing indigenous production of pulses in India	A.K. Choudhary G. Makarana Hari Govind (KVK, Buxar)	2016	2025	ICAR	<ul style="list-style-type: none"> <li>Progress satisfactory and to be continued</li> </ul>
5.2	ICAR-RCER/DCR/2020/236	Standardization of agro-techniques in nutri-cereals for enhancing the productivity in eastern Indo-Gangetic plains	Rakesh Kumar N. Bhakta	July 2020	Dec. 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>Progress satisfactory and to be continued</li> <li>A leaflet should be prepared for this project in two months.</li> <li>Explore Mn status and P availability</li> </ul>
5.3	--	Sustainable fodder production system under	G. Makarana Sanjeev Kumar A. Dey Saurabh Kumar	2021	2024 Extd 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>Progress satisfactory and extended for one year</li> </ul>

		different nitrogen and zinc management practices in eastern India					<ul style="list-style-type: none"> <li>• Take the field experiment at Sabajpura farm (near Arhar plot)</li> </ul>
5.4		Understanding temporal variation in fruit maturity behaviour of litchi growing in Jharkhand and Bihar	M. K. Dhakar Santosh S. Mali S.K. Naik S.D. Pandey* (ICAR- NRC for Litchi, Muzaffarpur) Dr S.K. Mehta (ICAR- NRC for Litchi, Muzaffarpur)	July 2022	June, 2025	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> <li>• *Subject to consent from Director, NRC for Litchi, Muzaffarpur</li> </ul>
5.5		Promotion of Commercial Custard Apple Cultivation in Jharkhand	M K Dhakar Meenu Kumari	April, 2022	March, 2025	MIDH	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>
5.6	--	Development of technology for post-harvest management and value addition of jackfruit in Eastern region	Prerna Nath M.K. Dhakar Ajit K Jha Abhishek Kumar S. J. Kale* (NISA, Ranchi)	Jan, 2022	Dec, 2024 Extd. 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for one year.</li> <li>• *Subject to consent from Director, NISA, Ranchi.</li> </ul>
5.7		Utilization of major fruit seeds and underutilized fruits for development of functional food products	T K Koley M K Dhakar R K Raman Ujjwal Kumar Prerna Nath Kirti Saurabh	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> <li>• Dr. Kirti Saurabh to be included as Co-PI.</li> </ul>
<b>6.0</b>	<b>Protection Technologies</b>						
6.1	--	Insect pest dynamics in litchi and their linking with digital tools for better management	J.S. Choudhary S.S. Mali M.K. Dhakar S.K. Mehta	July 2021	June 2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> </ul>
6.2	--	Morphological and molecular characterization of bottle	Ajit Kumar Jha J.S. Chaudhary P. Bhavana Meenu Kumari A.K. Singh	July 2021	June 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> </ul>



		gourd wilt complex					
6.3	--	Weed seed bank dynamics, resource-use efficiency and greenhouse gas foot print under diverse tillage production systems in Eastern Indo-Gangetic Plains	Sonaka Ghosh Rakesh Kumar Rachana Dubey R. K. Raman Saurabh Kumar Ved Prakash Kirti Saurabh	July 2021	June 2024 Extd. Dec. 2024	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for six months.</li> </ul>
6.4	....	Management of false smut through modification in sowing dates and establishing disease relation with weather parameters	A.K. Dubey Santosh Kumar Manisha Tamta G. Makarana	2022	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>

### Theme- 3. Natural Resource Management for Enhancing Land & Water Productivity

**Theme Leader: Head, Division of Land and Water Management**

#### 7.0 Land & Water Management

7.1	-	Umbrella project on floodplains of E. India					
7.1.1	--	Collection, evaluation and characterization of popular rice landraces in floodplains of eastern India.	N. Bhakta A. K. Dubey	July 2020	June 2024 Extd. June 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for one year</li> <li>• Name of Dr. M. Monobrullah to be dropped due to his transfer</li> </ul>
7.1.2	ICAR-RCER/ DSEE/ 2020/ <b>242</b>	Resource inventorization of floodplain wetlands in eastern India	R. K. Raman Jyoti Kumar Dhiraj Kr Singh V Bharti	July 2020	June 2024 Extd. June 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for one year</li> <li>• Dr. V Bharti to be included as Co-PI</li> <li>• Name of Dr. Jaspreet Singh to be dropped due to his transfer.</li> </ul>

7.1.3	--	Mapping of flood in eastern India and its management strategies	Akram Ahmed Shivani	July 2020	June 2024 Extd. Dec. 2024	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for six months</li> </ul>
7.1.4	--	Resource assessment and management framework for sustainable fisheries in selected wetland	V. Bharti T. Kumar R.K. Raman S.K. Ahirwal	2021	2024 Extd. 2025		<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for one year</li> <li>• Identify 03 (well managed, partially managed and unmanaged) wetlands for comparative study.</li> </ul>
7.2	--	Assessment of bacterial diversity and characterization of PGPR in arsenic contaminated soil	Saurabh Kumar Kirti Saurabh Rachana Dubey S. K. Naik (Associate)	Jan. 2021	Dec. 2024	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Dr. M. Tripathi and Dr. Saurabh Kumar will work together on aspects of arsenic/heavy metals.</li> </ul>
7.3	--	Determining optimum decision variables in furrow irrigated system	Ajay Kumar A. Upadhyay Sanjeev Kumar Pawan Jeet Kirti Saurabh	2022	2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• More data (water discharge data etc.) should be generated.</li> </ul>
7.4		Simulation of soil water dynamics in rice-wheat-moong bean cropping system	A. Upadhyaya Pawan Jeet Kirti Saurabh	2022	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>
7.5	---	Multiple use of water for enhanced agricultural productivity in eastern India	<b>Project leader</b> Anup Das <b>PI:</b> A. Upadhyaya <b>Co-PI:</b> Akram Ahmed Ajay Kumar Shivani Rachana Dubey Pawan Jeet T. K. Koley Ved Prakash S. K. Ahirwal M. K. Tripathi	2023	2028	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Finalize crop/NRM component</li> <li>• Initiate duck component.</li> </ul>

			Abhishek Kumar Arti Kumari <i>Associate</i> A.S. Mahapatra M. K. Sinha				
7.6	---	Evaluation of the diara ecosystem for sustainable food production	<b>Project leader</b> Anup Das <b>PI:</b> A. Dey Abhay Kumar Sanjeev Kumar Md. Monobrullah N. Bhakta Akram Ahmed T. K. Koley Kamal Sarma R. K. Raman P. K. Sundaram Saurabh Kumar Kirti Saurabh M. Debnath Banda Sainath	2023	2026	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Record soil moisture and soil temperature data</li> <li>• Try for external funding from Govt. of Bihar</li> <li>• Develop a framework of Diara farming</li> </ul>
7.7	---	Energy flow, C balance, and water footprint of dominant cropping system under different agro-ecological region of eastern India.	Bikash Sarkar P. K. Sundaram Rakesh Kumar S.S. Mali Pawan Jeet Kirti Saurabh A. Upadhyaya	2023	2026	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> </ul>
7.8	--	Performance evaluation of Solar-powered pumping for Low Energy Pressurized Irrigation	Akram Ahmed A. Upadhyaya Ved Prakash Shivani M. Debnath Ajay Kumar Mukesh Kumar, CIAE, Bhopal	2023	2026	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Dr. Ajay Kumar to be included as Co-PI and will act as PI if Dr. Akram Ahmed gets selected as Sr. Scientist in other institute.</li> </ul>
7.9		<b>Modified title:</b> Rice and Millet based cropping system of Eastern Plateau and Hill Region.  <b>Previous Title:</b> Evaluation of tillage and crop establishment	S. K. Naik S. S. Mali J. S. Chaudhary Rakesh Kumar (Agronomy) B. K. Jha	2023	2028	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Modify title as “Rice and Millet based cropping system of Eastern Plateau and Hill region”</li> <li>• To add CT treatment for T8 &amp; T9.</li> </ul>

		methods on productivity, resource use efficiency and soil health in rice mustard greengram cropping system of eastern plateau and hill region.					
7.10		Development of solar photovoltaic powered agricultural machineries	P. K. Sundram Bikash Sarkar Pawan Jeet S. S. Mali Kamal Sarma A Dey Rakesh Kumar (DLFM)	2023	2026	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• More solar operated agril. Equipments to be added on dynamic mode</li> </ul>
7.11		Water budgeting in various rice establishment techniques	M. Debnath Ajay Kumar Arti Kumari Rakesh Kumar (Associate)	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Even though project approved in the year IRC 2023, PI initiated no activities, so the house suggested to start the project afresh from the year 2024.</li> <li>• Name of Dr. Sonaka Ghosh to be dropped.</li> <li>• Dr. Ajay Kumar to be included as Co-PI</li> <li>• Not Satisfactory</li> </ul>

#### **Theme-4. Livestock and Fisheries Management**

**Theme Leader: Head, Division of Livestock and Fisheries Management**

#### **8.0 Livestock and Avian Management**

8.1	ICAR-RCER/DLFM/EF/2011/ 31	Network project on Buffalo improvement	P.C. Chandran Pankaj Kumar P.K. Ray Rakesh Kumar Rajni Kumari A.Dey (Associate) R. K. Raman (Associate)	June 2012	Mar. 2025	ICAR RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Exact no. should be mentioned in ATR</li> <li>• One research paper to be communicated (&gt;6 NAAS)</li> </ul>
8.2	--	AICRP on Goat Improvement	Shanker Dayal P.C. Chandran P.K. Ray M.K. Tripathi Rakesh Kumar R.K.Raman	July 2019	Mar 2025	ICAR	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Publish 1-2 success stories</li> <li>• Dr. R.K. Raman to be</li> </ul>

			(Associate)				included as associate
8.3	ICAR-RCER/DLFM/2020/243	Assessment of antimicrobial drug resistance in bacteria of animal origin	Jyoti Kumar Shankar Dayal P.K. Ray R.K.Raman	July 2020	June 2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>
8.4	--	Reproductive abnormalities and associated common pathogens in special reference to Leptospirosis	Pankaj Kumar M.K. Tripathi A. Mukherjee Manish Kumar (IITG)	2021	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Name of Dr. Abhay Kumar &amp; S.K. Sheetal to be dropped.</li> <li>• One research papers to be communicated</li> </ul>
8.5	--	Exploring genetic basis of Mastitis resistance in livestock	Shankar Dayal Rajni Kumari Jyoti Kumar P.C.Chandran M.K. Tripathi Rakesh Kumar	2021	2025	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>
8.6	--	Effect of environmental exposure of arsenic in animals and fisheries in Bihar	M.K. Tripathi Pankaj Kumar A. Dey Kamal Sarma V. Bharti Arun Kumar (Mahavir Cancer Institute & Research Centre)	Jan, 2022	Dec, 2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Dr. V Bharti to be included as Co-PI</li> </ul>
8.7	--	Characterization & evaluation of chicken germplasm in eastern region	Reena K Kamal A. Dey P.C.Chandran Kanaka K K*, IIAB	2022	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Dr. Kanaka KK., IIAB to be included as Co-PI subject to the consent of Director, IIAB.</li> </ul>
8.8		Identification and characterization of common Zoonotic pathogens in domestic animals	Pradeep Kr Ray Jyoti Kumar P.C.Chandran Rakesh Kumar	2022	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• One research paper to be communicated</li> </ul>
8.9	--	Study of Genetic polymorphisms of candidate genes associated	Rakesh Kumar Shankar Dayal P.K. Ray MK Tripathi Rajni Kumari	2022	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>

		with production traits in Goats in Eastern Region.	P C Chandran				
8.10		Assessment of ecosystem services rendered by indigenous livestock, poultry species and breed.	A. Dey P.C. Chandran R.K. Raman R. K. Kamal Rachana Dubey Banda Sainath	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>
8.11	--	Status of fluorosis in livestock of Bihar and evaluating the ameliorative effect of nutraceuticals on affected cattle population	Pankaj Kumar Manoj K Tripathi Saurabh Kumar Vidya Shankar Sinha (KVK Harnaut) Jaspreet Singh*	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• One research papers to be communicated in one year</li> <li>• Name of Jaspreet Singh to be dropped due to his transfer</li> <li>• * Subject to the approval of Director, NBFGR</li> </ul>
8.12		Transcriptome and metagenome approach to characterize the genetic basis of prolificacy in goat	Rajni Kumari A. Dey Shanker Dayal P.C. Chandran P.K. Ray Jyoti Kumar Manoj Tripathi Rakesh Kumar Ramesh Tiwary* (BVC, Patna) Ramesh Pandit* (GBRC, Gandhinagar), C G Joshi* (GBRC, Gandhinagar)	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Dr(s) Ramesh Tiwary* (BVC, Patna); Ramesh Pandit* (GBRC, Gandhinagar), and C G Joshi* (GBRC, Gandhinagar) to be added as Co- PI</li> </ul>
9.0 Fisheries Management							
9.1		Standardization of culture techniques of Pabda fish in eastern region of India	Tarkeshwar Kumar Kamal Sarma S.K. Ahirwal Jaspreet Singh* V. Bharti	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• *Subject to the approval of Director, NBFGR</li> </ul>
9.2		Geospatial distribution and	V. Bharti Kamal Sarma	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> </ul>

		characteristics of microplastics in the riverine ecosystems of the Eastern Region India	Jaspreet Singh* T. Kumar S. K Ahirwal				<ul style="list-style-type: none"> <li>• Sampling for microplastics at a spot should be done thrice in a year in different seasons.</li> <li>• Experimental trial with diff level of microplastics with control to see weight gain/loss.</li> <li>• Explore microplastics in other food producing animal meat like chicken, mutton, duck etc.</li> <li>• *Subject to the approval of Director, NBFGR</li> </ul>
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### Theme- 5. Socio-Economics, Extension and Policy Research

Theme Leader: Head, Division of Socio-Economics and Extension

#### 10.0 Socio-economic Research

10.1	--	Enhancing food, nutritional and livelihood security of marginal and tenant farmers in Jharkhand through need based agricultural technologies	V.K. Yadav R.S. Pan A.K. Jha Reena K. Kamal S.K. Naik Anirban Mukherjee P. K. Sundaram N. K. Sinha (ICAR- NISA) Saumen Naskar (ICAR- IIAB) S. K. Gupta (ICAR- IIAB)	June 2018	Mar 2025	Farmer FIRST Project (Externally funded)	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>
10.2	ICAR-RCER/ DSEE/ 2019/ <b>230</b>	Status of utilization of digital tools in agriculture sector in Eastern India	Ujjwal Kumar Dhiraj K. Singh R.K. Raman T.K. Koley PC, KVK Buxar Indrajeet, SMS, KVK Ramgarh	Oct. 2019	Sep. 2024	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory.</li> <li>• Dr. T.K. Koley to be included as Co-PI</li> <li>• Name of Dr. N. Chandra to be dropped due to his superannuation.</li> </ul>
10.3	--	Agri-Business Incubation Project	A.K. Singh Ujjwal Kumar P. Bhavana T.K. Koley	2020	2025	NAIF	<ul style="list-style-type: none"> <li>• Team is revised after review of the ADG (IP&amp;TM), ICAR, New Delhi</li> <li>• Progress satisfactory and to be continued</li> </ul>

							<ul style="list-style-type: none"> <li>• Major technologies of the institute should be compiled as publication.</li> <li>• Increase visibility of ABI.</li> <li>• After superannuation of Dr. A K Singh, Dr. P Bhavana will be the PI of the project</li> </ul>
10.4	--	ITMU Project (NAIF Component I)	P. Bhavana A.K. Singh A Dey	2011	Long term	NAIF	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• An Industry-ICAR meet should be held in September, 2024. (Action: Dr. Ujjwal Kumar)</li> <li>• List the names of incubates at ABIGROW 2.0 conducted at NAARM.</li> <li>• Provide material for Newsletter</li> </ul>
10.5	--	Model based inference on agricultural crops for food security in Eastern India	R. K. Raman Abhay Kumar Ujjwal Kumar Akram Ahmed	2021	2024	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory.</li> </ul>
10.6	--	Impact of e-NAM on improving marketing of agricultural produce in eastern India	Dhiraj Kr Singh Abhay Kumar V.K. Yadav A. Mukherjee	2021	2024 Extd. Dec., 2024	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and extended for six months.</li> </ul>
10.7		Sustainability of FPO in eastern India	VK Yadav A Mukherjee RK Raman Subhadeep Roy* (ICAR-IIVR) Kaushik Pradhan* (UBKV) Lipi Das* (ICAR-CIWA) Sujay Kademani* (ICAR-IIAB)	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> <li>• Name of Dr. Neetu Kumari, BAU, Sabour to be dropped.</li> <li>• *Subject to the approval of the competent authority.</li> </ul>
10.8		Assessing the impact of	A Mukherjee Dhiraj Kr Singh	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> </ul>



		climate resilient agricultural interventions in enhancing farmers adaptive capacity in Bihar	RK Raman Manisha Tamta Rakesh Kumar (Agronomy) Ujjwal Kumar Abhay Kumar Ram Kewal (KVK Buxar) Ashok Kumar (KVK, Gaya)				
10.9		Participatory Research Application for Year round income and Agricultural Sustainability (PRAYAS)	<b>Project leader</b> Anup Das Nodal Officer Bikash Sarkar <b>PI:</b> Anirban Mukherjee <b>CCPI</b> <b>Assam:</b> K. Sarma <b>Bihar:</b> P.K. Sundaram <b>Chhattisgarh:</b> B.K. Jha <b>Eastern UP:</b> Dhiraj Kr Singh <b>Jharkhand:</b> S.S. Mali <b>Odisha:</b> S.K. Naik <b>West Bengal:</b> Bikash Sarkar	2023	2026	ICAR-RCER	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• List monthly income of the farmers in tangible and non-tangible terms.</li> <li>• Impact assessment of each intervention must be done.</li> <li>• Bulletin must be developed by the end of the year.</li> </ul>
10.10		Development of zero hunger and zero technology gap village through innovative interventions	<b>Project leader(s)</b> Anup Das Director, ICAR-RCER, Patna & Anjani Kumar, Director, ATARI, Patna <b>PI:</b> Dhiraj Kr Singh <b>Team members:</b> Ujjwal Kumar Abhay Kumar Md. Monobrullah Rakesh Kumar (Agronomy) A Mukherjee RK Raman Arti Kumari Jyoti Kumar Kumari Shubha Amarendra Kumar (ATARI, Patna) Pragya Bhaduria (ATARI, Patna) Deokaran (KVK, Buxar) Ramkeval (KVK,	Oct 2023	Sep 2026	ATARI, Patna and ICARRC ER, Patna	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued.</li> </ul>

			Buxar)				
10.11		Sustainable improvement in livelihood of SC community in Meskaur and Sirdala block of Nawada district, Bihar	Dhiraj Kr Singh Ujjwal Kumar A. Mukherjee Shivani Rakesh Kumar Kumari Shubha P.C. Chandran R.K. Raman B. Sainath	Jan 2024	Dec 2026	DST	<ul style="list-style-type: none"> <li>• Progress satisfactory and to be continued</li> <li>• Dr. B Sainath to be included as Co-PI</li> </ul>