

# **EIGHTEENTH (18<sup>th</sup>) INSTITUTE RESEARCH COUNCIL (IRC) MEETING**

**24<sup>th</sup> and 25<sup>th</sup> April, 2025**

## **PROCEEDINGS**



**ICAR – Central Island Agricultural Research Institute**

**भा.कृ.अनु.प. – केंद्रीय द्वीपीय कृषिअनुसंधानसंस्थान**

**Sri Vijaya Puram, A & N Islands-744105**

**श्री विजयपुरम, अंडमान और निकोबार द्वीप समूह- ७४४१०५**



## **XVIII INSTITUTE RESEARCH COUNCIL (IRC) MEETING, 2025**

**Chairman, IRC, 2025: Dr. Eaknath B. Chakurkar, Director, ICAR-CIARI, Port Blair**

**Member Secretary, IRC, 2025: Dr. Jai Sunder, I/c PME Cell**

### **Rapporteurs**

<b>Division</b>	<b>Rapporteurs</b>
Division of Animal Science	Dr. R.R. Alyethodi, Dr. J. Praveenraj
Field Crop Improvement and Protection Section	Dr. P. Prabhu, Dr. Sharath Yeligar
Division of Fisheries Science	Dr. J. Praveenraj, Dr. R.R. Alyethodi
Division of Horticulture & Crop improvement	Dr. Pooja Bohra, Dr. Sharath Yeligar
Division of Natural Resource Management	Dr. Harshang Talaviya, Dr. P. Prabhu

## **PROCEEDING OF THE XVIII INSTITUTE RESEARCH COUNCIL MEETING (24<sup>TH</sup> AND 25<sup>TH</sup> April, 2025)**

The XVIII Institute Research Council of ICAR-Central Island Agricultural Research Institute (ICAR-CIARI), Sri Vijaya Puram, was held on 24th and 25th April 2025, under the Chairmanship of Dr. E. B. Chakurkar, Director, ICAR-CIARI, Sri Vijaya Puram. All the scientists of the institute attended the meeting and presented the progress of institute-funded projects.

At the onset, Dr. Jai Sunder, Member Secretary, welcomed the Director and all the scientists and SMSs to the meeting. A total of 29 ongoing projects and 1 new institute-funded project were discussed and reviewed during the meeting.

Speaking on the occasion, the Chairman emphasized that the suggestions of the Research Advisory Committee (RAC) should be followed for improving the output and outcomes of the ongoing projects. He further urged the scientists to focus on areas that are farmer-centric and address the current needs. He encouraged everyone to participate in healthy scientific discussions and contribute to the improvement of project activities and outputs. He also emphasized that the role of Co-PIs in the projects must be well justified, and their assigned responsibilities should be clearly defined. He added that more interdisciplinary projects should be undertaken and that scientists should work in a team-oriented mode. He instructed that all reports be submitted to the PME cell on time.

Presentations were made by all Principal Investigators (PIs), followed by detailed discussions on all institute-funded projects.

## Division of Animal Science

### 1. Project title: Molecular epidemiology and vaccine development for caseous lymphadenitis in goat (2024-2027)

**PI:** Arun Kumar De (5)

**Co-PIs:** Jai Sunder (1) & D. Bhattacharya (1)

**Duration:** 2024-27

**Project Code:** HORTCIARISIL202400900253

**Decision:**

- Officially contact ICAR-NIVEDI regarding the prevalence of disease and obtain field information from veterinarians through written communication.
- Collect samples from the slaughterhouse for screening of the *Corynebacterium pseudotuberculosis*.
- Conduct pathogenicity study.
- Explore the possibility of developing vaccines for hybridized strains rather than for only one or two serotypes.

**Remarks:** The house approved the continuation of the project

#### Technical programme for 2025-2026

Sl. No	Activity	I	II	III	IV	Name of PI/Co-PIs
1.	Survey and sample collection from suspected cases of Caseous lymphadenitis in goats	✓	✓	✓	✓	AKD, JS
2.	Characterization of the pathogen based on culture based and molecular tools	✓	✓	✓	✓	AKD, JS
3.	Whole genome sequencing of the pathogen	✓	✓			AKD, JS, DB
4.	Evaluation of antimicrobial resistance/sensitivity of the isolated strains by standard methodology		✓	✓	✓	AKD, JS, DB
5.	Pathogenicity testing of the <i>Corynebacterium pseudotuberculosis</i> isolates			✓	✓	AKD, JS, DB

### 2. Project title: Evaluation of traditional knowledge of plants in the management of *Rhipicephalus microplus* in cattle and goat

**PI:** Debasis Bhattacharya (5)

**Co-PI:** T. Sujatha (1), Jai Sunder (1), Ajit Arun Waman (1), Arun De (1), Sharath. S. Yeligar (1), P. Perumal (1)

**Duration:** 2022-2025 **Project Code:** HORTCIARISIL202200800237

**Decision:**

- Efficacy of the formulation to prevent recurrence may be tested at different time interval in future.

**Remarks:** The house approved to close the project and submit the RPP-III.

**3. Project title: Studies on prevalence of antimicrobial resistance in bacteria of zoonotic importance in food chain and environment (2023-2026)**

**PI:** Jai Sunder (3)

**Co-PIs:** T. Sujatha (1), A. K. De (1) & D. Bhattacharya (1)

**Duration:** 2023-26 **Project Code:** HORTCIARISIL202300200240

**Decision:**

- Observations of the project may be shared with the state departments for the policy making and give recommendation to ICMR and health department.
- Dr. T. Harshang Kumar may collect possible leafy vegetables during his survey and share with the PI for screening.

**Remarks:** The house approved the continuation of the project

**Technical programme 2025-26**

Sl.No	Activity	Quarter				Name of PI/CO-PIs
		I	II	III	IV	
1.	Collection of samples, isolation, identification and screening	✓	✓	✓	✓	JS, TS, AKD
2.	Phenotypic antibiotic resistance		✓	✓	✓	JS, TS, AKD
3.	Molecular screening of AMR and virulence genes		✓	✓	✓	JS, AKD, DB

**4. Project title: Nutrient intake and digestibility of the Andaman local and Nicobari Pigs in intensive system of rearing**

**PI:** P. A. Bala (4)

**Co-PIs:** Arun Kumar De (1)

**Duration:** 2021-24

**Project Code:** HORTCIARISIL00500229

**Decision:** Nil

**Remarks:** The house approved to close the project and submit RPP III.

**5. Project title: Tree fodder resources of A & N islands for its nutrient analysis and digestibility in livestock**

**PI:** P. A. Bala (8)

**Co-PIs:** I.Jaisankar (3)

**Duration:** 2023-2028 **Project Code:** HORTCIARISIL202300600244

**Decision:**

- Sampling should be carried out at monthly intervals, and proximate analysis should be conducted.
- Proximate analysis of Super Napier grass shall be independently conducted by Dr. T. Sujatha and Dr. P.A. Bala.
- Analyze urine samples to assess protein loss through urine.
- Dr. P.A. Balawill focus on digestibility studies, while production and maintenance shall be undertaken by Dr. I. Jaisankar, with proper records maintained on productive indices.

**Remarks:** The house approved the continuation of the project

### Technical programme for 2025-26

Sl. No	Activity	I	II	III	IV	Name of PI/CO-PIs
1.	Manage the trees and study the biomass yield parameters of plants (Sesbania, Albizia, Gmelina and Leucaena).	✓	✓	✓	✓	PA, IJ, SUB
2.	Analyse the proximate composition of the plants (Sesbania, Albizia, Gmelina and Leucaena)	✓	✓	✓	✓	PA, IJ, SUB
3.	Conduct digestibility trial for tree fodders (Sesbania, Albizia, Gmelina and Leucaena)	✓	✓	✓	✓	PA, IJ, SUB
4.	Prepare a dry leaf concentrate for the livestock	✓	✓	✓	✓	PA, IJ, SUB

### 6. Project title: Reproductive performances of cattle and goat in modern and traditional housing models in Islands conditions.

**PI:** P. Perumal (5)

**Co-PIs:** Abhilash (1) & Sharath S Yeligar (1)

**Duration:** 2024-2027

**Project Code:** HORTCIARISIL202400800252

#### Decision:

- Include disease incidence and mortality in the comparison of housing systems month wise
- Assess the economic impact in terms of improvement in productivity and reduction in losses resulting from changes in the housing system

**Remarks:** The house approved the continuation of the project

### Technical programme 2025-2026

Sl. No	Activity	I	II	III	IV	Name of PI/CO-PIs
1.	Body weight, physiological profiles, hematological parameters, endocrinological profiles, blood antioxidant and biochemical profiles will be measured at monthly interval in male and female goats both at old and new sheds. Milk parameters will be estimated in female goats	✓	✓	✓	✓	PP, A, SSY
2.	Birth weight of kids, growth rate, age at first heat, age at first kidding, kidding interval, litter size, rest period, service period, insemination index, conception	✓	✓	✓	✓	PP, A, SSY

	rate, does exhibited estrus and gestation period will be estimated in the experimental does and their kids in both old and new sheds.					
3.	Scrotal circumference and testicular parameters, semen production and its quality parameters will be estimated in the experimental bucks both at old and new sheds.	✓	✓	✓	✓	PP, A, SSY
4.	Body weight (length and girth), physiological profiles, hematological parameters, endocrinological profiles, blood antioxidant and biochemical profiles will be measured at monthly interval in calves, heifer and adult cattle both at old and new sheds. Milk parameters will be measured cows at old and new sheds.	✓	✓	✓	✓	PP, A, SSY
5.	Birth weight, growth rate, age at first heat, age at first calving, calving interval, rest period, service period, insemination index, conception rate, cows exhibited estrus and gestation period will be estimated in the experimental cows and their calves in both old and new sheds.	✓	✓	✓	✓	PP, A, SSY

**7. Project title: Impact assessment of CIARI technologies on Andaman and Nicobar Island farmers**

**PI:** S. Yeligar (6)

**Co-PIs:** Ramakrishna (1), Santosh Kumar (1) & V. Damodaran (1)

**Duration:** 2024-27 **Project Code:** HORTCIARISIL202400700251

**Decision:**

- To assess CARI DHAN 10 and other varieties
- To study the impact of GPS in fisherman with help of Fishery Science Division.

**Remarks:** The house approved the continuation of the project

**Technical programme for 2025-26**

Sl. No	Activity	I	II	III	IV	Name of PI/CO-PIs
1.	Schedule preparation, Data collection and analysis of Samruddhi.	✓	✓	✓	✓	SSY, RY, VD
2.	Schedule preparation, Data collection and analysis of CARI Dhan, CARI Brinjal.	✓	✓	✓	✓	SSY, RY, VD, SK
3.	Data collection and analysis of	✓	✓			SSY, RY, VD,

	Mini Incubator.					SK
4.	Data collection and analysis of tickure		✓	✓	✓	SSY, RY, VD
5.	Data collection and analysis of DweepVertigrow			✓	✓	SSY, RY, VD, SK

**8. Project Name: Mitigation of heat stress of endemic poultry breeds of Andaman Islands under impending climate change scenario**

**PI:** T. Sujatha (5)

**Co. PIs:** D. Bhattacharya (1), Nibedita Nayak (1) & Dr Abhilash (1)

**Duration:** 2022-2026

**Project Code:** HORTCIARISIL202200700236

**Decision:**

- Mitigation of thermal stress should be carried out under simulated thermal stress conditions.
- Evaluate the production performance of Andamani ducks under thermal stress in semi-intensive conditions.

**Remarks:** The house approved the continuation of the project

**Technical programme 2025-2026**

Sl.No	Activity	Quarters				Name of PI/CO-PIs
		I	II	III	IV	
1	Mitigation of thermal stress : Probiotic supplementation under thermal stress stimulated condition	✓	✓	✓	✓	TS & DB
2	Study on thermal stress under habitat condition – Native Ducks	✓	✓	✓	✓	TS & DB
3	Project completion				✓	TS

**9. Project title: Exploring the transcript variants and expression profile of germ line markers Vasa and DAZL genes in Goat**

**PI:** K. Muniswamy (8)

**Co-PIs:** R. R. Alyethodi (1) , P. Perumal (1)

**Duration:** 2023-26

**Project Code:** HORTCIARISIL202300300241

**Decision:**

- The sample size should be increased.

**Remarks:** The house approved the continuation of the project

**Technical programme for 2025-2026**

S.No	Activity	Quarters				Name of PI/CO-PIs
		I	II	III	IV	
1	Primers designing, PCR optimization and amplification of various splice variants of Dazl gene.	✓				RRA, KM



2	RACE PCR optimization and amplification of UTR region of various splice variants of Vasa and Dazl gene.		✓	✓		RRA, KM
3	qPCR optimization for Vasa splice variants quantification with newly designed primers.		✓	✓		RRA
4	Purification of PCR products of Vasa and Dazl, and cloning into suitable plasmid.			✓		PP, KM
5	Transformation into <i>E.Coli</i> to produce recombinant clones and screening for positive clones.			✓		KM
6	Plasmid isolation from positive clones and sequencing of cloned products.			✓	✓	KM, PP
7	Editing and analysis of sequences				✓	KM

**10 Project title: Sorting of X and Y bearing spermatozoa in rabbit model**

**PI:** Dr. R.R. Alyethodi (4)

**Co-PIs:** P. Perumal (1)

**Duration:** 2023-26 **Project Code:** HORTCIARISIL202300400242

**Decision:**

- To use GnRH in the pig model for improved conception.
- Evaluation of the probe for *in vitro* assessment of graded semen.

**Remarks:** The house approved the continuation of the project for a period of 1 year.

**Technical Programme (2025–2026)**

Sl. No.	Activity	Q1	Q2	Q3	Q4	Name of PI/CO-PIs
1	Sex sorting in the Rabbit and Pig model involving more animals	✓	✓			RRA, PP
2	Development of probe for <i>in vitro</i> assessment of sex sorting	✓	✓	✓	✓	RRA
3	Development of protocol specific to female sperm sorting	✓	✓			RRA

**11. Project title: Evaluation of Serum Levels of ERBB2, FGFR1, MAP3K19, GDF9, and IGF1R as Goat Fecundity Biomarkers**

**PI:** R.R. Alyethodi (3)

**Co-PIs:** Muniswamy (1)

**Duration:** 2023-26 **Project Code:** HORTCIARISIL202300500243

**Decision:**

- Development of DNA testing for other established SNP markers

**Remarks:** The house approved the continuation of the project

### Technical Programme (2025–2026)

Sl. No.	Activity	Q1	Q2	Q3	Q4	Name of PI/CO-PIs
1	Development of T-ARMS PCR for <b>GDF9, and IGF1R</b>	✓	✓			KM, RRA
2	Genotyping samples for <b>GDF9, and IGF1R SNPs</b>		✓	✓		RRA
3	Correlation Analysis of SNP with Proteomics Data			✓	✓	RRA
4	Report preparation				✓	RRA

## Field Crop Improvement and Protection Section

**1. Project title: Introduction of Sesame and Safflower Oilseed Crops to Island Conditions: Evaluating Performance in the Andaman Islands**

**PI :** P. Prabhu (4)

**Co-PIs :** P. K. Singh (1) & Abhilash (1)

**Duration:** 2024-2027      **Project Code:** HORTCIARISIL202400300247

**Decision:**

- Castor, sunflower, and linseed crops to be included along with sesame and safflower in the technical programme; accordingly, the title should be revised.

**Remarks:** The house approved the continuation of the project

### Technical programme 2025-2026

SL. No.	Activities	Quarter				Name of PI/Co-PI
		I	II	III	IV	
1.	DNA Isolation for Molecular Characterization		✓			Pr
2.	PCR Amplification with Genome-Wide SSR Markers			✓	✓	Pr
3.	Data Analysis and Comparison with Morphological Data			✓	✓	Pr
4.	Evaluation of Selected Genotypes Based on Previous Season Performance			✓	✓	Pr, PKS
5.	Study Weather Parameters and Standardization of Agro Techniques for Second Season			✓	✓	Pr, AS

**2. Project title: Collection, conservation, characterization and evaluation of cucurbitaceous germplasm for the Andaman and Nicobar Islands**

**PI :** P. Prabhu (4)

**Co-PIs :** I. Jaisankar (1) & Raj Narayan (1)

**Duration :** 2024-2027      **Project Code:** HORTCIARISIL202400400248

**Decision:**

- Include Dr. Raj Narayan as the Co-Principal Investigator (Co-PI) in the project team.
- Collection of cucurbit germplasm should be undertaken, particularly from the Nicobar group of Islands.

**Remarks:** The house approved the continuation of the project

### Technical programme 2025-2026

SL. No.	Activities	Quarter				Name of PI/Co-PI
		I	II	III	IV	
1	Plan and organize exploration missions to various ecological niches in South Andaman, North & Middle Andaman and Nicobar for germplasm collection	✓	✓			Pr, IJ
2	Document and catalog the collected germplasm, noting specific ecological and morphological traits		✓			Pr
3	Evaluation of Procured Genotypes			✓		Pr, RN
4	Conduct detailed morphological characterization of each collected germplasm, documenting traits.			✓	✓	Pr, RN
5	Seed multiplication to increase the seed stock of each collected germplasm for submission to the NGB.			✓	✓	Pr, IJ
6	DNA Isolation			✓	✓	Pr
7	Molecular Characterization			✓	✓	Pr

### 3. Project title: Harnessing variability of multi-parent advance generation inter-cross (MAGIC) population of rice for genetic improvement.

**PI:** Dr. P.K. Singh (4)

**Co-PIs:** Dr. Y. Ramakrishna (1), Dr. Prabhu P (1) & Dr. Pooja Kapoor (1)

**Period:** 2022-2026

**Project Code:** HORTCIARISIL202200400233

#### Decision:

- Cooking quality parameters of promising paddy lines should be analyzed.
- The lines exhibiting the highest zinc content in grains require further analysis in combination with soil testing.
- Screening of paddy lines for suitability in puffed rice or any other value added product should be undertaken.
- Genotyping of selected MAGIC lines needs to be conducted.
- Intimate the concerned community or rights holders before using protected plant varieties for research purposes as a regular procedure.

**Remarks:** The house approved the continuation of the project

### Technical programme 2025-2026

SN	Activity	Quarters				Name of PI
		I	II	III	IV	
1	Stability analysis (G X E. interaction) of selected advanced inter-cross lines will be studied.	✓	✓	✓	✓	PKS, YR, Pr
2	Grain quality analysis of rice Advanced Inter-cross Lines.	✓	✓	✓	✓	PK
3	Nomination of selected Advance Inter-cross Lines under AICRP rice trials.	✓	✓	✓	✓	PKS, Pr
4	Report writing and submission of RPF III	✓	✓	✓	✓	PKS, YR, Pr, PK

## Division of Fisheries Science

### 1. Project title: Standardization of live feed based seed rearing of *Labeorohita* and *Penaeus vannamei* culture in biofloc system

PI: Chittaranjan Raul (7)

Co-PIs: J Praveenraj (1)

Duration: 2024-2027

Project code: HORTCIARISIL202400100245

#### Decision:

- Omit tapioca and sugar; include fat/oil in the treatment group.
- Test coconut cake from different sources and at varying concentrations, with proper replications.
- Calculate the economics considering changes in density and the inputs provided.

**Remarks:** The house approved the continuation of the project.

#### Technical Programme for 2025-2026

S. N	Activity	Quarters				Name of PI/ Co-PIs
		I	II	III	IV	
1.	Evaluation of the growth of live feed ( <i>Moina</i> sp.) in biofloc system of different carbon sources.	✓				CR
2.	Evaluation of growth of live feed ( <i>Moina</i> sp) in biofloc system of different C:N ratios		✓			CR
3.	To study the water quality parameters for optimization of live feed production in biofloc system.		✓	✓		CR
4.	Quantitative and qualitative characterization of live feed based biofloc.				✓	JP

### 2. Project title: Development of Island-based information management system for decision making in agriculture

PI: D. Karunakaran (4)

Co-PIs: Sirisha Adamala(1), S. Yeligar (1), Gladston.Y (1)

Duration: 2022-2026

Project code: HORTCIARISIL202200100230

#### Decision:

- Include information of Lakshadweep Islands to the developed geoportal software.
- Include Dr. Y. Gladston as the Co-PI

**Remarks:** The house approved the continuation of the project.

### Technical Programme for 2025-2026

S. N	Activity	Quarters				Name of PI/ Co-PIs
		I	II	III	IV	
1.	Creation of Maps and update in geospatial database of Lakshadweep Island	✓	✓	✓	✓	DK, SA, SY
2.	Integration of layers with Web GIS	✓	✓	✓	✓	DK, SA
3.	Domain registration, Server Configuration of Dweep Geo server	✓	✓	✓	✓	DK

### 3. Project title: Application of artificial intelligence (AI) and internet of things (IoT) in agriculture for efficient management

**PI:** D. Karunakaran(4)

**Co-PIs:** Abhilash (1),Chittranajan Raul (1),Pooja Bohra (1) P.Perumal (1)

**Duration:** 2024-2027 **Project code:** HORTCIARISIL202400200246

#### Decision:

- Test the dissolved oxygen at different intervals of time to know the optimum time for aerator operation.
- Include comparative water quality data of summer and monsoon

**Remarks:** The house approved the continuation of the project.

### Technical Programme for 2025-2026

S. N	Activity	Quarters				Name of PI/ Co-PIs
		I	II	III	IV	
1	Installation of body temperature and heart bit rate sensor in cattle	✓	✓	✓	✓	DK, PP, AB, CR
2	Data Analysis of hourly generated Soil moisture data using Machin learning techniques	✓	✓	✓	✓	DK, PP, AB, CR,PB

### 4. Project title: Development of control & treatment measures for the management of parasitic diseases in freshwater fishes

**PI:** J. Praveenraj (4)

**Co-PIs:** Ajit Arun Waman (1), Talaviya Harshangkumar (1) & Chittaranjan Raul (1)

**Duration:** 2023-2026 Project Code: HORTCIARISIL202300100239

#### Decision:

- Arecoline should be tested alone and explored in combination with the best formulation for antiparasitic activity

**Remarks:** The house approved the continuation of the project.

### Technical Programme for 2025-2026

S. N	Activity	Quarters				Name of PI/ Co-PIs
		I	II	III	IV	
1	Invitro and Invivo analysis of combination extract against gill fluke and skin fluke, and other parasites	✓	✓			JPR, CR, AW
2	Toxicity studies & histological analysis of host animals exposed to combination extract		✓			JPR, HK
3	Field evaluation of combination extract			✓		JPR, CR, AW, HK
4	Product development and storage studies				✓	JPR, CR, AW, HK

#### 5. Project title: Deciphering the *in-vitro* bioactive potential of selected seaweed species of Andaman Islands and evaluation of its immunomodulatory effect on fish

**PI:** Dr. K. Saravanan (4)

**Co-PIs:** Dr. J. Praveenraj (1) & Dr. R. Kiruba Sankar (1)

**Duration:** 2022-2025

**Project code:** HORTCIARISIL202200600235

#### Decision:

- The ratio of saturated fatty acids to unsaturated fatty acids for the selected seaweed species to be calculated while preparing final report.

**Remarks:** The house approved the closure of the project.

#### 6. Project title: Mapping the brackish water resources of South Andaman for aquaculture site suitability using GIS approach

**PI:** R Kiruba Sankar (4)

**Co-PIs:** J Praveenraj (1)

**Duration:** 2024-25

**Project code:** HORTCIARISIL202200500234

#### Decision:

- Include Stewartgunj as a new study area and undertake site suitability studies
- Suggested to extend the project up to March 2026.

**Remarks:** The house approved the continuation of the project up to March, 2026

### Technical Programme for 2025-2026

S. N	Activity	Quarters				Name of PI/ Co-PIs
		I	II	III	IV	
1.	Collection of soil, water and GIS related data for Stewartgunj-mannarghat inundated water bodies	✓	✓			RKS, JPR



2.	Analysis of the hydrographical parameters and utilization of the data in AHP-GIS platform		✓	✓	JPR
3.	Finalization of the data from other stations and report preparation			✓	JPR

**7. Project title: Integrated Farming System (IFS) for enhancing sustainable Livelihood of rural tribal community of Minicoy Islands**

**PI:** S.M. Ajina (8)

**Co-PIs:** Y. Gladston (2), Chittaranjan Raul (1) & V. M. Gafoor

**Duration:** 2022-2026 **Project code:** HORTCIARISIL202200300232

**Decision:**

- Rodent control measures should be implemented to address the problem on the farm, and expert opinion may be sought from Dr. Mani Chellappan.
- Canopy management and pruning shall be undertaken in sapota and coconut intercropping systems.
- Goat feed formulation may be obtained from the Animal Science Division, ICAR-CIARI, to formulate feed at the farm level.

**Remarks:** The house approved the extension of the project for one year upto 2026.

**Technical Programme for 2025-2026**

S. N	Activity	Quarters			Name of PI/Co-PIs
		I	II	III	
1.	Modelling of IFS system	✓	✓	✓	ASM & GY
2.	Economic analysis	✓			ASM & GY
3.	Training and demonstration	✓		✓	PB, VMG & EBC
4.	Masmin based poultry feed	✓	✓		PB, CR, VMG, EBC, ASM & GY

**8. Project title: Exploration of fishery, biology and market potential of tuna resources of Minicoy Islands**

**PI:** Gladston (7)

**Co-PIs:** S.M. Ajina (2) & V.M. Gafoor

**Duration:** 2022-2026 **Project code:** HORTCIARISIL202200200231

**Decision:**

- It is suggested to deploy small Fish Aggregating Devices (FADs) or Artificial Reefs (ARs) in the shallow waters of Minicoy.
- A new FAD should be fabricated and deployed at the earliest to initiate conservation efforts
- An extension of 1 year to fulfill other activities under the project has been granted.

**Remarks:** The house approved the extension of the project for one year upto 2026.

### Technical Programme for 2025-2026

S. N	Activity	Quarters			Name of PI/Co-PIs
		I	II	III	
1.	Construction and deployment of new FAD	✓	✓		ASM & GY
2.	Diversity studies and utilization of tuna resources of Minicoy	✓	✓	✓	ASM, VMG& GY
3.	Pollution studies and other threats to of atollecosystem and diversity	✓	✓	✓	ASM & GY
4.	Catch per unit effort and economic studies in tuna pole and line	✓	✓		ASM, VMG& GY

## Division of Horticulture and Crop Improvement

**1. Project title:** Identification and characterization of superior of germplasm of cinnamon, tejpat, long pepper and clove under Bay Islands condition.

**PI:** Ajit Arun Waman (3)

**Co-PI:** Pooja Bohra (3), P. K. Singh (1)

**Project duration:** 2021-2026

**Project code:** HORTCIARISIL202100200226

### Decision:

- It was suggested to provide the elite germplasm of cinnamon and woody pepper to KVK, South Andaman and KVK, North & Middle Andaman, wherein these will be multiplied using Institute developed Dweep Goottee-365 and serpentine layering methods, respectively.
- Multiple elite types for various economic traits (dry recovery, total bark yield, essential oil content, oleoresin content) could be selected in cinnamon.
- More data on ease of peeling could be collected using newly developed DweepCinnRub with different workers.
- Cinnamon collection with no detectable coumarin content should be evaluated once more before proposing for registration.

**Remarks:** The house approved continuation of the project.

### Technical Programme 2025-26

Sl. No.	Activity	Quarter				Name of PI/CO-PIs
		I	II	III	IV	
1	Maintenance of germplasm and mass multiplication of identified superior germplasm	✓	✓	✓	✓	AAW, PB
2	Characterization and evaluation of collections of <i>Piper sarmentosum</i> and clove	✓	✓	✓	✓	AAW, PB
3	Biochemical analysis of cinnamon varieties grown under arecanut	✓	✓	✓	✓	AAW, PB

**2. Project title:** Conservation, bioprospection and utilization of selected fruit species of Bay Islands

**PI:** Pooja Bohra (5)

**Co-PI:** Ajit Arun Waman (1) & P. Prabhu (1)

**Project duration:** 2021-2026

**Project Code:** HORTCIARISIL202100200225

### Decision:

- It was suggested to take up collection and planting of avocado and mango germplasm. Area should be earmarked for the same.
- Macropropagation should be taken up in Korangi banana once the newly constructed polyhouse becomes functional.

**Remarks:** The house approved continuation of the project.

### Technical Programme 2025-26

Sl. No.	Activity	Quarter				Name of PI/Co-PIs
		I	II	III	IV	
1	Studying the interspecific grafts of <i>Garcinia</i> species for growth and physiological parameters	✓	✓	✓	✓	PB
2	Propagation studies in selected fruit crops	✓	✓	✓		PB, AAW
3	Identification of superior germplasm of Andaman Kokum and banana variety Korangi	✓	✓	✓	✓	PB, AAW
4	Maintenance and multiplication of germplasm of selected fruit species	✓	✓	✓	✓	PB
5	Collection, characterization and conservation of mango germplasm	✓	✓	✓	✓	PP

### New Institute funded project

**1. Project title: Assessment and strengthening of year-round vegetable cultivation through strategic introduction, acquisition and utilization of germplasm**

**PI:** Raj Narayan (5)

**Co-PIs:** Pooja Bohra (1), P. Prabhu (1) and Sharath S. Yeligar (1)

**Period:** 2025-2028

**Project Code:** HORTCIARISIL202501100255

#### Decision:

- It was suggested to get the details on demand, production and import status of vegetables in the islands from the appropriate sources to align the research efforts accordingly.
- Objectives to be modified and reduced to three.
- Experiments on tomato and chilli should be taken up with the genotypes suitable for coastal conditions, preferably OP varieties.
- Disease incidence should be recorded in all the experiments under the project.
- Season specific vegetable combinations should be developed for the islands with their package of practices initially for at least two – three crops.
- Soil testing should be done before and after the experiments.
- High value vegetables should be tried under open and polyhouse conditions under standard conditions.
- Poi varieties previously released by the Institute should be included in evaluation as check.

**Remarks:** The house approved the project with the suggested modifications.

## Division of Natural Resource Management

### 1. Project Title: Determining suitable cropping window and varieties in rice-based cropping system under Island ecosystem

**PI:** Abhilash (4)

**Co-PIs:** P. K. Singh (1) & Subash Nataraja Pillai(1)

**Duration:** 2024-2027

Project Code: HORTCIARISIL202400500249

#### Decisions:

- It was suggested to continue the project as per the scheduled technical programme for year 2025-26.

**Remarks:** The house approved continuation of the project.

### Technical Programme 2025-2026

Sl.No	Activity	Quarter				Name of PI/CO-PIs
		I	II	III	IV	
1.	Soil Sample Analysis	✓				AS
2.	Nursery Raising for Rice crop	✓				AS & PKS
3.	Rice Transplanting	✓	✓			AS & PKS
4.	Rice Crop Growth observations		✓	✓		AS
5.	Microclimate observations in rice crop canopy across different date of sowing		✓	✓		AS
6.	Rice Yield attributes observations			✓		AS & PKS
7.	Datasets preparation for Rice Crop Simulation Model				✓	AS & SNP
8.	Calibration of DSSAT model for Rice				✓	AS & SNP
9.	Soil Sample Analysis				✓	AS
10.	Sowing of Green Gram				✓	AS & PKS
11.	Green Gram Crop Growth observations				✓	AS
12.	Microclimate observations in Green Gram crop canopy across different date of sowing				✓	AS
13.	Calibration of APSIM model for Moong				✓	AS & SNP

### 2. Project Title: Development of *Panchamrit* mediated silver nanoparticles and its antimicrobial activities

**PI:** TalaviyaHarshangkumar (4)

**Co-PIs:** J. Praveenraj (1)& Jai Sunder (1)

**Duration:** 2024-2027

Project Code: HORTCIARISIL202400600250

**Decisions:**

- The quantity of *Ocimum sanctum* leaves used in *Panchamrit* preparation needs to be fixed to ensure uniformity during the synthesis of silver nanoparticles.

**Remarks:** The house approved continuation of the project.

**Technical Program for 2025-2026**

SI No	Activities	I	II	III	IV	Name of PI/CO-PIs
1	Characterization of synthesized AgNPs with UV, FTIR, XRD, DLS, SEM, and TEM in analytical labs.	✓	✓			TH
2	Result interpretation and bulk production of AgNPs for Bio-efficacy study			✓	✓	

**3. Project title: Feasibility of natural farming under tropical island ecosystem**

**PI:** Talaviya Harshankumar (3)

**Co-PIs :** Y. Ramakrishnan (1)

**Duration:** 2024-2027

Project code: HORTCIARISIL20240100254

**Decisions:**

- It was recommended that treatments be labelled as “Organic Inputs + Natural Farming” instead of “Organic Farming + Natural Farming” for clarity.

**Remarks:** The house approved continuation of the project.

**Technical Program for 2025-2026**

SI No	Activities	I	II	III	IV	Name of PI/CO-PIs
1	Natural Farming Input Preparation	✓				TH & YRK
2	Field Experiment to study the effect of natural farming in coconut based cropping system		✓	✓		TH & YRK
3	Field Experiment to study the effect of natural farming in rice-vegetable cropping system		✓	✓		TH & YRK
4	Soil Sample analysis, nutrient uptake and microbial population etc.				✓	TH

**4. Project title: Development of sequential cropping system of Andaman Padauk based agro-forestry**

**PI:** I. Jaisankar (3)

**Co-PIs:** S. Sharath Yeliyar (1)

**Duration:** 2022-2026

Project code: HORTCIARISIL202200900238

**Decisions:**

- It was suggested to repeat the analysis of organic carbon across the various plots in the experiment.
- Silvipasture planting and development activities should be undertaken at the Parliamentary Park of the institute.

**Remarks:** The house approved continuation of the project.

**Technical programme 2025-2026**

Sl.No	Activity	Quarter				Name of PI/CO-PIs
		I	II	III	IV	
1.	Biometric & meteorological observation	✓	✓	✓	✓	IJ
2.	Soil and plant sample analysis	✓	✓	✓	✓	IJ
3.	Crop/vegetable/fruit/tuber growth and yield observation	✓	✓	✓	✓	IJ, SY
4.	Report writing and submission	✓	✓	✓	✓	IJ, SY

**5. Project title: Organic farming studies for sustaining productivity of Island cropping systems**

**PI:** T. Subramani (2)

**Co-PIs:** Y. Ramakrishna (1)Project code: HORTCIARISIL201800900195

**Project duration:** 2018-2024

**Decisions:**

- A Package of Practices based on the experimental results for the crops studied under the project should be prepared for submission to the A&N Administration.
- The committee recommended the submission of RPP 3 for the project closure.

**Remarks:** The house approved to close the project and submit the RPP-III.

### Concluding remarks by Chairman

The Chairman of the IRC commended all the scientists for their excellent work and remarkable contributions. He emphasized that the projects should directly benefit the farming community. He further added that every scientist should set personal targets aligned with the institute's mandate, which, in turn, must reflect the national priorities of ICAR and the country as a whole. He noted that the aspirations of the new Director General are very high, and thus, a more focused and concentrated effort is required to develop new varieties, technologies, and impactful outcomes for the farming community. He stressed the importance of quality publications and urged all scientists to strive to publish at least one high-impact paper from their respective projects.

At the conclusion of the meeting, the Member Secretary of the IRC thanked the Chairman and all the scientists for their valuable suggestions, remarks, and active participation.

### Review of externally funded and ICAR funded projects

On 30th April, the Chairman of the IRC reviewed the externally funded and ICAR-funded projects. Currently, a total of 9 externally funded and 12 ICAR-funded (AICRP/Network Projects etc) projects are ongoing at the institute. The respective Principal Investigators (PIs) presented the objectives, significant achievements, and budget utilization of their projects. The technical and financial progress of the projects was found to be satisfactory.

In general, the Chairman made the following suggestions:

- The AICRP on Vegetable Crops should be handed over to Dr. Raj Narayan from Dr. P.K. Singh.
- An organic package of practices for vegetable and spice crops should be prepared by the end of May by Dr. Raj Narayan, Dr. P.K. Singh, Dr. Ajit Arun Waman, and Dr. Y. Ramakrishna.
- Soil parameters, including organic carbon content, of all experimental plots at the institute farm should be tested every two years. (Action: Head, NRM Division)
- The potential for acceptance and marketability of pandanus should be explored. (Action: Dr. I. Jaisankar)
- No data shall be shared with other organizations without prior approval of the Director and intimation to the PME.

### Summary of the projects presented and discussed in IRC-2025

Division	Ongoing 2024-25	Close	New project	In Hand 2025-26
Division of Animal Science	11	2	0	9
Division of Fisheries Science	8	1	0	7
Division of Horticulture & crop improvement	2	0	1	3
Division of Natural Resource Management	5	1	0	4
Field crop improvement and protection Section	3	0	0	3
<b>Total</b>	<b>29</b>	<b>4</b>	<b>1</b>	<b>26</b>



SL. NO.	NAME OF THE SCIENTIST	MANMONTH	TOTAL
<b>DIVISION OF ANIMAL SCIENCE</b>			
1.	Dr. A.K. De, Sr. Scientist (Animal Biotechnology)	Project 253-PI-5, Project 240-CoPI-1, AICRP Pig-CoPI- 2, FMD-1, other activities – 3	12
2.	Dr. D. Bhattacharya, Pr Scientist (Vet. Parasitology)	Project 237-PI -5, Project 253-Co-PI-1, Project 240-Co-PI - 1, FMD-1, AMR-1, AICRP-Pig-1, other activities-2	12
3.	Dr. Jai Sunder, Head, ASD (Vet Microbiology)	Project 240-PI-3, Project 253-Co-PI-1, Project 250-Co-PI-1, FMD-1, AMR-1, NADEN-1, AICRP-Goat-1, Other activities - 3	12
4.	Dr. P. A. Bala, Pr.Scientist (Animal Nutrition)	Project 244– PI-8, AICRP Pig-CoPI- 1, Other activities -3	12
5.	Dr. P. Perumal, Sr. Scientist (Animal Reprod&Gyneac)	Project 252-PI-5, Co-PI-1, Project 242-CoPI-1, Project 246-CoPI-1, Project 241-CoPI- 1, AICRP Goat-1, other activities-2	12
6.	Dr. S. Sharath Yeligar, Scientist (Agricultural Economics)	Project 251 –PI-6, Project 238-Co-PI- 1, Project 252- Co-PI- 1, Project 255- Co-PI- 1 Project 230- Co-PI- 1, other activities -2	12
7.	Dr. T. Sujatha, Pr.Scientist (Poultry Science)	Project 236-5, Project 240-1, PSP-1, DST-PI-3, Other activities -2	12
8.	Dr. K. Muniswamy, Scientist (Animal Biotechnology)	Project 241-9, Project 243-1, other activities- 2	12
9.	Dr.Rafeeqe Rahman AlyethodiScientist (AGB)	Project 242- PI-4, Project 243-PI-3, Project 241-Co-PI-1, AICRP goat -2 & other activities -2	12
<b>FIELD CROP IMPROVEMENT AND PROTECTION SECTION</b>			
10.	Dr. P. Prabhu, Scientist (Economic Botany & Plant Genetic Resources)	Project 247-PI-4, Project 248-PI- 4, Project 225-CoPI-1, Project 233-CoPI-1, Project 255-CoPI-1, other activities -1	12
11.	Dr. Pankaj Kumar Singh, (Plant Breeding)	Project 233-PI-4, Project 226-CoPI-1, Project 247-CoPI-1, Project 249- CoPI-1, ICAR Seed-1, Other activities -4	12
<b>DIVISION OF FISHERIES SCIENCE</b>			
12.	Mr. Chittaranjan Raul, Scientist (Aquaculture)	Project 245-PI-7, Project 239-CoPI-1, Project 232-CoPI-1, , Project 246-CoPI-1, other activities-2	12

13.	Dr. Karunakaran, Scientist (Computer Application in Agriculture)	Project 230-PI-4, Project 246-PI-4, coastal fisheries Hub-1, Other activities -3	12
14.	Dr. J. Praveenraj, Scientist (Fish Health)	Project 239-PI-4, Project 234-CoPI-1, Project-245-CoPI-1, NSPAAD-1, coastal fisheries Hub-1, AMR-2, other activities- 2,	12
15.	Dr. R. Kirubasankar, Sr. Scientist (Fish & Fisheries Science)	Project 234-PI-4, Coastal fisheries HUB-3, AINP-1, NSPAAD-1, other activities-3	12
16.	Mrs. Ajina S.M., Scientist (FRM)	Project 232-PI-8, Project 231-2, other activities-2	12
17.	Mr. Gladston Y., Scientist (FRM)	Project 231-PI-7, Project 232-Co-PI-2, other activities-3	12
<b>DIVISION OF HORTICULTURE AND CROP IMPROVEMENT</b>			
18.	Dr. Raj Narayan, HoD, H&F	Project 255-PI- 7 , Project 248-CoPI-2, Other activities -3	12
19.	Dr. Ajit Arun Waman, Scientist (Spice, Plantation, Medicinal & Aromatic Plants)	Project 226-PI-3, Project 239-CoPI-1, Project 225-CoPI-2, Project 250-CoPI-1, ProjectCSS (MIDH) NHM- 1, AYUSH-1, AICRP on Palms- 1, Other activities -2	12
20.	Dr. Pooja Bohra, Scientist (Fruit Science)	Project 225-PI- 5, Project 226-PI- 2, Project 246-CoPI-2, Project 255-CoPI-1, Other activities- 2	12
<b>DIVISION OF NATURAL RESOURCE MANAGEMENT</b>			
21.	Dr. Abhilash Singh, Scientist (Agricultural Meteorology)	Project 249-PI-4, Project 246-CoPI- 1, Project 247-CoPI-1, Project 252-CoPI-1, Project 236-CoPI-1, Agromet advisory- 2, Other activities -2	12
22.	Mr. Harshang.T, Scientist (Agricultural Chemicals)	Project 250-PI-4, Project 239-CoPI-1, Project MPRNL-2, Project 254-PI-3, other activities- 2	12
23.	Dr. I. Jaisankar, Sr. Scientist (Agroforestry)	Project 238-PI-3, Project 244-CoPI-1, Project 248-CoPI-1, Project DUS noni- 2, Project AICRP tuber- 2, Project NMBP pandanus-2, other activities- 1	12

The following official were attended the meeting physically

1. Dr. Eaknath B. Chakurkar, Director, ICAR-CIARI
2. Dr. Jai Sunder, HoD Animal Science
3. Dr. Raj Narayan HoD, Horticulture & Forestry
4. Dr. P. K. Singh, I/c FCIP section
5. Dr.R.Kirubasankar, Sr. Scientist &HoDI/c, Fisheries Science
6. Dr. I. Jaisankar, Sr. Scientist &HoD I/c Natural Resource Management
7. Dr. Y. Ramakrishna, Pr Scientist & Head, KVK, South Andaman
8. Dr. D. Bhattacharya, Pr Scientist
9. Dr. T. Sujatha, Pr Scientist
10. Dr. P. A. Bala, Pr Scientist
11. Dr. Arun Kumar De, Sr. Scientist
12. Dr. Ajit Arun Waman, Sr. Scientist
13. Dr. Pooja Bohra, Sr. Scientist
14. Dr. P. Perumal, Sr. Scientist
15. Shri. D. Karunakaran, Scientist
16. Dr.K.Muniswamy, Scientist
17. Dr.R.R.Alyethodi, Scientist
18. Dr. P. Prabhu, Scientist
19. Dr. K Saravanan, Scientist
20. Dr. J. Praveenraj, Scientist
21. Dr. Abhilash, Scientist
22. Dr. Chittaranjan Raul, Scientist
23. Dr.HarshangkumarTalaviya, Scientist
24. Dr. S. Yeligar, Scientist
25. Dr. Z. George, SMS
26. Dr. Pooja Kapoor, SMS
27. Dr. Mohit, SMS
28. Miss Sushma, SMS

The following scientist & other officials joined the meeting virtually

1. Dr. S.M. Ajina
2. Dr. Y. Gladston
3. Dr. Santosh Kumar, Head KVKNicobar
4. Dr. V. Damodaran, Head KVK N & M Andaman
5. Er. Manoj Kumar, SMS
6. Shri. Yatharth Sharma, SMS
7. Shri. Rakesh Dawar, SMS
8. Dr. Akshay, SMS
9. Shri. Deepo Meena, SMS
10. Shri. Ajmal.S, SMS
11. Shri. Sanketh.G.D, SMS

**(Jai Sunder)**  
**Member Secretary, IRC 2025**