PROCEEDING OF THE
XVI INSTITUTE RESEARCH COUNCIL MEETING
HELD FROM 31st May to 2nd June, 2023

Dr. E. B. Chakurkar
Director & Chairman, Institute Research Council

Dr. Jai Sunder
Pr. Scientist & I/c PME
Secretary, Institute Research Council

Rapporteurs

Dr. K. Saravanan, Dr. Pooja Bohra, Dr. R.R. Alyethodi, Dr. Sirisha Adamala

ICAR-Central Island Agricultural Research Institute, Port Blair
A & N Islands 744 105

PROCEEDINGS OF THE XVI ISTITUTE RESEARCH COUNCIL MEETING (31st May to 2nd June, 2023)

The XVI Institute Research Council of ICAR-Central Island Agricultural Research Institute, Port Blair, was held from May 31 to June 2, 2023, under the chairmanship of Dr. E. B. Chakurkar, Director, ICAR-CIARI, Port Blair. All the scientists of the institute attended the meeting and presented the progress of ongoing projects. At the onset, Dr. Jai Sunder, Member Secretary, welcomed the Director and all the scientists to the meeting. A total of 31 ongoing projects and 5 new institute-funded projects were discussed and reviewed during the meeting. The monitoring of externally funded projects was also conducted on June 2, 2023.

Speaking on the occasion, the chairman emphasized that each co-PI has to contribute in a quantifiable manner and has to present his contributions. He also informed that a field IRC will be conducted within 3 months. The technical programme of the research projects should clearly highlight the location of the project, the area, etc. He also informed that, as per the Council's guidelines, a technical staff member should not be a PI in any institute or ICAR-funded project.

Presentations were made by all PIs, followed by a detailed discussion of all the institute funded projects.

Division of Horticulture and Crop Improvement

1. Project title: Harnessing variability of multi-parent advance generation inter-cross (MAGIC) population of rice for genetic improvement.
PI: Dr. P.K. Singh (3)
Co-PIs : Dr. Y. Ramakrishna & Dr Pooja Kapoor
Period: 2022-2026 **Project Code:** HORTCIARISIL202200400233
Decision:

i. Dr. Y. Ramakrishna and Dr. Pooja Kapoor has been added as Co-PIs in the project.
ii. studies should be conducted for yield potential, submergence resistance and mineral composition of the selected lines.
iii. Metagenomic studies pertaining to aroma compounds could be taken up.

Remarks: The house approved the project and the PI has to submit the RPP-I with suggested modification.

Technical Programme for 2023-2024

Sl No	Activity	Quarters				Persons identified
		I	II	III	IV	
1	Evaluation of selected Advanced Inter-crossed Lines (AILs) of rice for submergence tolerance.	✓	✓	✓	✓	PKS, YRK
2	Evaluation of selected rice AILs for yield and other yield attributing traits in replicated trial.	✓	✓	✓	✓	PKS
3	Evaluation of selected CARI Dhan 5 BILs under yield evaluation trials (YET) at different locations.	✓	✓	✓	✓	PKS, YRK
4	Screening of rice AILs and BILs for BLB resistant in field conditions through artificial inoculation method.		✓	✓		PKS
5	Grain quality analysis of BILs derived from CARI Dhan 5.				✓	PKS, PK
6	Re-evaluation of selected BILs of rice for salinity tolerant in Micro-plots.		✓	✓	✓	PKS
7	Preparation of proposals and nomination of elite BILs lines of rice in AICRP trails			✓		PKS

2) Project title: Conservation and utilization of coconut and arecanut genetic resources of Andaman & Nicobar and Lakshadweep Islands for high yield and product diversification
PI: Dr. B. Augustine Jerard
Co-PIs: Dr. V. Damodaran & Dr. S. K. Zamir Ahmed
Period: 2018-2023 **Project Code:** HORTCIARISIL201800200188
Presented by: Dr. I. Jaisankar
Decision:

i. It was decided to demarcate the blocks as well as plants of Andaman Arecanut Dwarf, Dweep Sona, Dweep Haritha and coconut hybrids attempted during the project period and properly label the same. Dr. I. Jaisankar and Dr. V. Damodaran, Co-PIs of the project, were entrusted with the work. Field maps of the same to be maintained in the Sippighat farm once the area is identified.
ii. Planting material of dwarf arecanut to be prepared for sale.

Remarks: The house approved closure of the project.

3) Project title: Improvement of vegetable and tuber crops for Andaman and Nicobar Islands
PI: Dr. B. Augustine Jerard
Co-PIs: Dr. V. Damodaran, Dr. P.K. Singh and Dr. S.K. Zamir Ahmed
Period: 2018-2023 **Project Code:** HORTCIARISIL201800300189
Presented by: Dr. I. Jaisankar
Decision:

i. Seeds of the germplasm studied in the project to be handed over to Dr. P.K. Singh.
ii. Study the seed fat content in *Hibiscus acetosella* collections.
iii. Field board to be placed in all the experimental field with proper labeling.

Remarks: The house approved closure of the project.

4) Project title: Collection, conservation, conservation, evaluation and agro-technique standardization of native and commercial ornamental crops
PI: Dr. V. Baskaran (3)
Co-PIs: Dr. K. Abirami (2)
Period: 2020-2026 **Project Code:** HORTCIARISIL202000200219
Decision:

i. It was suggested to specify the species in title of the project.
ii. Planting material production of specialty flowers to be further strengthened and minimum 200 nos of each should be made available with sale point.
iii. Work to be focused on selected species of cut flowers (gerbera, anthurium, specialty flowers), loose flowers (Jasmine, marigold and chrysanthemum), native ornamentals (ferns and orchids).
iv. Planting material (1,000 nos.) of crossandra to be prepared.
v. It was observed that data was not processed hance it was suggested to conduct the studies using suitable experimental design and proper number of replications for drawing statistically valid conclusions.
vi. All the experimental fields under the project to be maintained with proper field boards.

Remarks: The house approved continuation of the project. Dr. Y. Ramakrishna to be included as a co-PI in the project.

Technical Programme for 2023-2024

SN	Activity	Quarters				Persons identified
		I	II	III	IV	
1	Evaluation of Anthurium germplasm and new collection of speciality flowers	√	√	√	√	KA, VB, TS & ZA
2.	Breeding studies in gerbera	√	√	√	√	VB, KA & TS
3.	Breeding studies in speciality flowers	√	√	√	√	VB, KA & TS

5) Project title: Collection, conservation and evaluation of commercial fruits crops of Andaman & Nicobar Islands
PI: Dr. K. Abirami (3)
Co-PIs: Dr. V. Baskaran (2) & Dr. Pooja Kapoor
Period: 2018-2023 **Project Code:** HORTCIARISIL201800100187
Decisions:

i. To undertake large scale macropropagation of banana with the best treatment identified in the study conducted in the reported period.

ii. Area under guava and sapota varieties to be extended for serving as a mother block in future for planting material production.
iii. Dragon fruit experimental field needs to be maintained in proper condition with recommended practices.
iv. A brochure on regulation of flowering in pineapple to be prepared for benefit of the stakeholders.
v. Standard package of practices to be developed for all the crops being studied in the project.

Remarks: The house approved extension of the project, initially up to December, 2023.

Technical Programme for 2023-2024

SN	Activity	Quarters				Persons identified
		I	II	III	IV	
1	Effect of organic nutrients on growth and yield of banana	√	√	√	√	KA, VB
2.	Effect of spacing on growth and yield of pineapple	√	√	√	√	KA, VB
3.	Evaluation of dragon fruit under pot condition. Standardization of rapid multiplication in dragon fruit	√	√	√	√	KA, VB

6) Project title: Identification and characterization of superior germplasm of cinnamon, tejpat and long pepper under Bay Islands condition

PI: Dr. Ajit Arun Waman (3)

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

Period: 2021-2026 **Project Code:** HORTCIARISIL202100200226

Decisions:

i. Yield of *Piper longum* to be studied in comparison with *Piper sarmentosum* collections.
ii. A dedicated plot of long pepper is to be prepared as an intercrop in arecanut.
iii. Analysis of Piper longumine to be outsourced in *P. sarmentosum* collections.
iv. Clove to be included in the project and seedling progenies of clove at Sippighat farm to be studied for their quality parameters. Project title to be modified accordingly.
v. Anti-inflammatory studies in pig using *Piper sarmentosum* could be taken up with the help of Dr. D. Bhattacharya.

Remarks: The house approved continuation of the project and inclusion of Dr. P.K. Singh as the co-PI.

Technical Programme for 2023-2024

Sl No	Activity	Quarters				Persons identified
		I	II	III	IV	
1	Maintenance and augmentation of collections of cinnamon, tajpat and long pepper	√	√			AAW
2	Characterization and evaluation of 24 collections of cinnamon, 6 collections of tejpat and 6 collections of *Piper sarmentosum*	√	√	√	√	AAW, PB
3	Performance evaluation of six cinnamon varieties in arecanut for morphological and biochemical characteristics	√	√	√	√	AAW, PB
4	Correlation and bagging studies in cinnamon			√	√	AAW, PKS
5	Morphological and biochemical studies in clove			√	√	AAW, PB

7) Project title: Conservation, bioprospection and utilization of selected underutilized fruit species of Bay Islands
PI: Dr. Pooja Bohra (7)
Co-PI: Dr. Ajit Arun Waman (2)
Period: 2021-2026 **Project Code:** HORTCIARISIL202100100225
Decision:

i. Registration of identified germplasm of Malabar tamarind to be taken up on priority.
ii. The postharvest laboratory of the Institute to be handed over by the Head, NRM Division to the PI and to be made functional. Value addition work to be further intensified through AICRP on PHET. Dr T.Sujatha, Dr.Pooja Bohra and Dr. Pooja Kapoor to initiate the functioning of PHET lab.

Remarks: The house approved continuation of the project.

Technical Programme for 2023-2024

Sl No	Activity	Quarters				Persons identified
		I	II	III	IV	
1.	Biochemical analysis of *Garcinia mangostana*, *G. kydia* and *G. celebica*	√	√			PB, AAW
	Interspecific grafting studies in *Garcinia* spp.	√	√	√	√	PB, AAW
2.	Studying the effect of various postharvest treatments and packaging on shelf-life extension in underutilized fruit species	√	√	√		PB, AAW
	Development of processed products from Malabar tamarind and Andaman kokum and their storage studies	√	√	√	√	PB, AAW
3.	- Enrichment of underutilized fruits blocks with new germplasm - Standardization of propagation technique in *Baccaurea ramiflora* and *Flacourtia* species - Establishment of mother block of identified selections of Malabar tamarind - Mass multiplication of underutilized fruits for ensuring planting material availability to the stakeholders	√	√	√	√	PB, AAW
	Record of phenological and growth and/or yield observations in various underutilized fruit species maintained in the germplasm/experimental blocks	√	√	√	√	PB

Division of Natural Resource Management

1. Project title: Study of carbon footprints in major farming systems of A&N Islands for climate change adaptation

PI: Dr. T.P. Swarnam
Co-PIs:Dr. Sirisha Adamala
Duration:2020-2023 **Project Code**: HORTCIARISIL202000500221
Decisions:

i. The present Carbon stock after soil analysis should be reported at the time of final submission.
ii. Adaptive measures should be quantitatively measured & reported.

Remarks: The house approved closure of the project and RPP-III is to be submitted.

2. Project title: Valorization of organic wastes for abiotic stress management

PI: Dr. A. Velmurugan
Co-PI: Dr. T.P. Swarnam
Duration:2021-2023 **Project Code**: HORTCIARISIL202000600223
Presented By: Dr. T.P. Swarnam
Decisions:

i. Technical bulletine to be prepared for method of composting using different organic residues with different methos)vermicomposting, bacterial consortia etc.

Remarks: The house approved closure of the project and RPP-III is to be submitted.

3. Project title : Development of novel biostimulants for enhancing crop production under island agro-ecosystem

PI: Dr. T.P. Swarnam (3)
Co-PI: Dr. T. Subramani (1)
Duration:2021-2023 **Project Code**: HORTCIARISIL202000500222
Decisions:

i. Field based Papaya experiment is to be continued.

Remarks: The house approved continuation of the project.

Technical Programme for 2023-2024

SN	Activity	Quarters				Persons identified
		I	II	III	IV	
1	Observation on papaya	√	√	√		TPS
2.	Conducting the experiment on pineapple	√	√	√	√	TPS,TS
3.	Final report writing and submission				√	TPS,TS

4. Project title: Enriching coconut plantations of Andaman and Nicobar Islands through augmentation of indigenous multipurpose tree resources

PI:Dr. I. Jaisankar (3)
Co-PI: Dr. V. Damodaran
Duration: 2018-2023 **Project Code**: HORTCIARISIL201800600192
Decisions:

i. Logging intensity and decomposition rate are to be studied.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

Sl No	Activity	Quarter				Person identified
		I	II	III	IV	
1	Biometric observation Recording green and dry biomass	√	√	√	√	IJ, VD
2.	Soil and plant sample analysis	√	√	√	√	IJ
3.	Coconut yield estimation	√	√	√	√	IJ, VD
4.	Documenting the species diversity of existing major agroforestry models Data analysis & Report writing	√	√	√	√	IJ

5. Project title: Development of sequential cropping system of Andaman Padauk based agroforestry

PI: Dr. I. Jaisankar (3)
Co-PIs: Dr. T. Subramani (1)
Duration:2022-2026 **Project Code**: HORTCIARISIL202200900238
Decisions:

i. Perennial crop (cinnamon) should be dropped from treatment and other rotations to be continued.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Initial and periodic soil sample collection and analysis	√	√	√	√	IJ
2	Biometric & meteorological observation	√	√	√	√	IJ, TS
3	Soil and plant sample analysis	√	√	√	√	IJ, TS
4	Crop/vegetable/fruit/tuber growth and yield observation	√	√	√	√	IJ, TS
5	Recording growth of Padauk	√	√	√	√	IJ
6	Agroforestry management (Weeding, cleaning, basin formation, fencing)	√	√	√	√	IJ

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

PI: Dr. T. Subramani (3)
Co-PIs: Dr. Y. Ramakrishna
Duration:2018-2024 **Project Code**: HORTCIARISIL201800900195
Decisions: To continue the studies on organic farming experiment in coconut, Rice-Vegetable cropping system

Remarks: The house approved continuation of the project with the suggested modifications

Technical Programme for 2023-2024

SN	Activity	Quarters				Person idenfiied
		I	II	III	IV	
1	Organic farming experiment in coconut, Rice-Vegetable cropping system		√	√	√	TS
3.	Natural farming and moisture conservation studies		√	√		YR

7. Project title: Management of moisture stress in vegetable cropping systems

PI: Dr. T. Subramani

Co-PI: Dr. Sirisha Adamala

Duration:2021-2023 **Project Code**: HORTCIARISIL202000300220

Decisions:

i. The house approved the project to be concluded with RPP-III submission.

Remarks: The house approved closure of the project and RPP-III is to be submitted.

8. Project title: Study of hydrological response for soil and water conservation in Island ecosystem

PI: Dr. Sirisha Adamala (5)

Co-PI: Dr. V. Damodaran, Dr Y. Ramakrishna

Duration:2019-2024 **Project Code**: HORTCIARISIL201900200207

Decisions:

i. Included Dr. Y. Rama Krishna as Co-PI.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Soil loss prediction for 2030 and 2050 years in Andaman ecosystem		√	√		SA
2	Ground truth validation of potential water & soil conservation practices		√	√	√	SA, YR, VD
3	Final report writing and submission				√	SA

Division of Animal Science

1. Project title: Prevalence and diversity of antimicrobial resistance in *Enterobacteriaceae* from livestock and its surrounding environment

PI: Dr. Jai Sunder
Co-PIs: Dr.S. Bandyopadhyay & Dr.T.Sujatha
Duration: 2019-2022 **Project code:** HORTCIARISIL201900300208
Decisions:

i. Take-home message of the project shall be communicated to the concerned official departments of A&N administration.
ii. Official information on antibiotics used in the Island may be collected which can help to know about the malpractices followed, if any.

Remarks : The house approved the project to be closed.

2. Project title: Real time evaluation of traditional knowledge of plants in the management of *Rhipicephalus microplus* in cattle and goat

PI: Dr. D. Bhattacharya (3)
Co-PIs: Dr. T. Sujatha (1), Dr. Jai Sunder (1), Perumal (1) & Dr. A. K. De (1)
Duration: 2022-2025 **Project Code:** HORTCIARISIL202200800237
Decisions:

i. Dr. P Perumal included as Co-PI in the project.
ii. The exact concentration of the plant extract before its application should be quantified.
iii. It is suggested to follow standard methods of aqueous extraction procedure for the herbal products planned to use under this project.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

Sl No	Activity	Quarters				Person identified
		I	II	III	IV	
1	*In vitro* assessment of metanolic extract	√	√	√	√	DB, TS, AKD, JS, PP

3. Project title: Mitigation of heat stress of endemic poultry breeds of Andaman Islands under impending climate change scenario

PI: Dr. T. Sujatha (3)
Co-PIs: Dr. D. Bhattacharya (2) & Dr. Nibedita Nayak
Duration: 2022-2026 **Project code:** HORTCIARISIL202200700236
Decisions:

i. To make necessary arrangements *viz*. heater, AC, and humidifier while conducting the experiment which is required for the thermal conditioning of the chicks after hatching.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Seasonal assessment for production and reproduction performance		√			TS, DB
2.	Assessment of thermal stress under simulated condition			√	√	TS, NN

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

PI: Dr. P.A. Bala (3)

Co. PIs: Dr. A.K.De (1)

Duration: 2021-2024 **Project code:** HORTCIARISIL202100500229

Decisions:

i. Study to be conducted on nutrient requirements as per the objective of the project.
ii. Survey of farmer's fields for the feeding practices and its proximate composition, their crude protein content as one of the treatments.
iii. Feed samples from Nicobar may be collected and proximate analysis may be carried out and keep the practices of Nicobari farmers as one of the trails.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Persons identified
		I	II	III	IV	
1	Experiment conducted with proper care and standard procedure	√	√	√	√	PAB, AKD
2.	Conducting trial in female and intact male in both Andaman local pigs			√		PAB
3.	Conducting trial in female, intact male and castrated in both Andaman local & Nicobari pigs			√	√	PAB, AKD

5. Project title: Probiotics supplementation in pig health and immunity

PI: Dr. A.K De (3)

Co-PIs: Dr. D. Bhattacharya (1) & Dr.P.A. Bala (1)

Duration: 2021-2024 **Project code:** HORTCIARISIL202100300227

Decisions:

i. Evaluation of the probiotic supplementation in the farmers field to be studied.
ii. Farmers may be sensitized for the provision of adequate feeding to ensure accurate findings

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Persons identified
		I	II	III	IV	
1	Identification of farmers and selection of pigs at field	√				AKD, DB
2.	Probiotics supplementation and effect evaluation	√	√	√		AKD, DB, PAB
3.	Data compilation and report preparation				√	AKD

6. Project title : Evaluation of hormonal and biochemical profiles of indigenous boar under abiotic stressors and melatonin intervention for its mitigation

PI: Dr. Perumal P. (2)

Co-PIs: Dr. A.K. De (1) & Dr.R.R. Alyethodi (1)

Duration: 2020-2023 **Project code:** HORTCIARISIL202000100218

Decisions:

i. Suggested to work on dairy cattle production improvement through female side intervention and a new project may be proposed in the coming field IRC

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Circadian rhythmic changes of biochemical profiles will be studied.	√	√			PP, AKD, RRA
2.	Correlation analysis between the biochemical profiles and meteorological parameters will be analysed.			√	√	PP, AKD, RRA

7. Project title: Goat improvement through Assisted Reproductive Techniques in Andaman and Nicobar Islands

PI: Dr. Perumal P. (3)

Co-PIs: Dr. R.R. Alyethodi (1)**,** Dr P. A. Bala (1)

Duration: 2021-2024 **Project code:** HORTCIARISIL202100400228

Decisions :

i. Included one new objective on "effect of protein and energy on semen production and quality and preservation in buck".

ii. Included Dr. P.A Bala as Co-PI in this project.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Name of PI/Co-PIs
		I	II	III	IV	
1	Effect of protein and energy on semen production and quality and preservation in buck	√	√	√	√	PP, RRA, PAB

8. Proejct title: Molecular Characterization of Immune System genes of Nicobari fowl

PI: Dr. K. Muniswamy

Duration: 2017-2022 **Project code:** HORTCIARISIL201700300176

Decisions:

i. The PI of the project has requested for closure of the project as all the proposed objectives were fulfilled.

Remarks: The House approved the project to be closed

9. Project title: Identification of Genome-wide molecular signatures responsible for higher fecundity in Andaman Local goats

PI: Dr. R. R. Alyethodi

Duration: 2018-2022 **Project code:** HORTCIARISIL201801000196

Decisions:

i. The PI of the project has requested closure of the project as all the proposed objectives were fulfilled. The House approved the project to be closed.

ii. It was suggested to extend the findings of the project for protein level association via ELISA. The PI informed that a new project is been proposed in this direction.

Remarks: The House approved the project to be closed

New Institute projects

1. Project title: Studies on the prevalence of antimicrobial resistance in bacteria of zoonotic importance in food chain and environment: One Health Concern

PI: Dr. Jai Sunder (3)

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

Duration: 2023-2026

Decisions:

i. Milk and curd samples to be collected as livestock sample representation.

ii. Fruits and leafy vegetables may be collected as they are taken mostly raw.

iii. Suggested that the list of antibiotics used in humans and animals may be collected from the concerned departments.

Remarks: The house approved the project and suggested to submit RPPI.

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

PI: Dr. K. Muniswamy (8)

Co-PI : Dr. R.R.Alyethodi (1) , Dr. P. Perumal (1)

Duration : 2023-2026

Decisions:

i. Suggested that the samples may be collected through official communication

Remarks: The house approved the project and suggested to submit RPPI.

3. Project title: Sorting of X and Y bearing spermatozoa in rabbit model

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

Co-PI : Dr. P.Perumal (1)

Duration: 2023-2025

Decisions: To maintain the rabbit as per the IAEC guidelines

Remarks: The house approved the project and suggested to submit RPPI.

4. Project title: Evaluation of Serum levels of ERBB2, FGFR1, MAP3K19, GDF9, and IGF1R as goat fecundity biomarkers

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

Co-PI : Dr. K.Mumiswamy (1)

Duration: 2023-2026

Decisions :

i. Goat-specific ELISA kits of the selected genes available commercially should be utilized in this study

Remarks: The house approved the project and suggested to submit RPPI.

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

PI: Dr. P A Bala (3)

Co-PIs : Dr. I. Jaisankar (1), & Dr T. Subramani (1)

Duration: 2023-2028

Decisions:

i. The project is approved in principle for five years subject to the final approval of the detailed presentation in the study circle.
ii. Digestibility trials in cattle and goats should be studied.
iii. The PI and Co-PI should make a survey on the trees and shrubs having potential use as animal feed in the Island. A thorough review work should be undertaken before finalising list of plants
iv. Dr. I Jaisankar, Co-PI may present the coconut based intercropping agroforestry model.

Division of Fisheries Science

1. Project title: Opportunities and challenges of sustaining agriculture in South Andaman district of Andaman and Nicobar Islands: A Behavioral perspective

PI: Dr. S.K. Zamir Ahmed (5)

Co.PIs: Shri. D. Karunakaran, (1), Dr. Gladston. Y, (1) & Dr. Y. Ramakrishna

Duration: 2021-2023 **Project code:** HORTCIARISIL202000700224

Decisions:

i. House agreed for the modification of the title of the project according to the added study areas in Andaman and Nicobar Islands and Minicoy Island.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Overall execution	√	√	√	√	SKZ
2	Restructuring Interview schedule	√	√			SKZ, YR, DK, ,YG
2.	Data collection at South, North & Nicobar district & analysis		√	√	√	SKZ ,YR, DK
3.	Data collection at Minicoy & Synthesis			√	√	SKZ,YG
4.	Data Analysis, Synthesis & report writing			√	√	RJK, DK & SKZ

2. Project title: Mapping the brackish water resources of Andaman group of Islands to delineate the sites suitable for aquaculture using Geographical Information System (GIS)

PI: Dr. R. Kiruba Sankar (3)

Co-PIs: Dr.K. Saravanan (1), Dr. Sirisha Adamala (1) & Dr. J. Praveenraj (1)

Duration: 2022-2025 **Project code:** HORTCIARISIL202200500234

Decisions:

i. Information on cultivation practices in the inundated areas to be collected.

ii. Mapping of inundated areas in Car Nicobar to be done.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Developing multi-criteria based on literature review and local conditions	✓	✓			RKS, SA
1	Soil and water samples collection and analysis from study sites	✓	✓	✓	✓	RKS, KS, JP
2.	Analyzing the distances, proximities, and other criteria from the selected sites.			✓	✓	SA, RKS
3.	Using pairwise comparison matrix, site suitability index, consistency ratio			✓	✓	RKS, JP
4	Overlay of weighted parameters and decision making				✓	RKS, SA

3. 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 (2) & Dr. R. Kirubasankar (1)

Duration: 2022-2025 **Project code:** HORTCIARISIL202200600235

Decisions:

i. Characterization of bioactive compounds present in the seaweed species to be done.
ii. Before inclusion of sea weed as feed additives, the toxicity studies to be done
iii. Suggested to ensure proper mixing or uniform distribution of seaweeds in the fish feed to be prepared for experimental trials.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Identification of the bioactive compounds present in the seaweed species.	✓				KS
2	Analysis and characterization of the bioactive compounds present in the seaweed species.	✓				KS, RKS
3	Conduct of toxicity studies (LC50 or LD50 test) before the inclusion of seaweed as feed additives.		✓			KS, JP
4	Preparation of fish feed by incorporating the selected seaweed species.		✓			KS, JP
5	Conduct of feeding trial on selected fish species.		✓	✓		KS, RKS
6	Analysis of growth parameters and hemato-immunological parameters at the end of feeding trial.			✓	✓	KS, JP

4. Project title: Prevalence of parasites infecting commercial marine and freshwater fishes of the Andaman Islands

PI: Dr. J. Praveenraj (4)

Co. PIs: Dr. K. Saravanan (1)

Duration:2019-2022 **Project code:** HORTCIARISIL201900900214

Decisions:

i. Include the details of ponds surveyed and other relevant data in the final report of the project to be submitted to PME cell.
ii. Prepare a technical bulletin on fish parasitic infestations with standardized treatment or control measures and submit it to PME cell within a month time.
iii. PI along with Dr. Chittaranjan Raul has to prepare a bulletin on good aquaculture practices and submit it to PME cell within a month time.

Remarks: The house approved the project to be closed and the PI has to submit the RPP-III with complete report.

5. Project title: Status of Tuna fishery of Minicoy Islands

PI: Dr. Y. Gladston (6)

Co-PIs: Mrs. S.M. Ajina (3), Dr.V.M.Gafoor & Dr. E. B.Chakurkar

Duration: 2022-2024 **Project code:** HORTCIARISIL202200200231

Decisions:

i. Decided to remove Dr. E.B.Chakurkar and included Mr. Chittaranjan Raul, Scientist as Co-PI for the project.

ii. To prepare a calendar on the availability of bait fishes.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

	Activity	**Quarters**				**Person identified**
		I	II	III	IV	
1	Questionnaire for tuna value chain analysis			✓		GY
2.	Cataloguing marine fish diversity			✓	✓	ASM,GY
3.	Biological data collection			✓	✓	GY, ASM
4.	Socio-economic structure of Minicoy fishermen			✓	✓	SKZ
5.	Information from other Islands				✓	VMG

6. Project title: Integrated farming system for enhancing livelihood of tribal community of Minicoy Island

PI: Mrs. S. M. Ajina (6)

Co. PIs: Dr. S. K. Zamir Ahmed (1), Dr.Y. Gladston (2), Dr. T. P. Swarnam (1), Dr.V.M.Gafoor & Dr.E.B.Chakurkar

Duration: 2022-2024 **Project code:** HORTCIARISIL202200300232

Decisions:

i. Included Mr. Chittaranjan Raul, Scientist as Co-PI

ii. Suggested to send the soil samples to ICAR-CIARI, Port Blair or KVK, Kavaratti for analysis.

iii. Utilize the expertise of Dr. Mani Chellappan, Professor from Kerala Agricultural University for the pest and disease management in agricultural crops. Also advised to use yellow sticky traps for the control of white fly.

iv. To include compost making unit in the IFS system with locally available earth worms and nutrients.

v. Suggested to go for foliar application of nutrients to manage the micronutrients deficiency in agricultural crops.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	**Activity**	**Quarters**				**Person identified**
		I	II	III	IV	
1	Concept, designing& development of IFS plots with compatible component			✓	✓	SMA, TPS
2.	Fodder grass evaluation (CO-5), technology application & to			✓	✓	SKZ, GY, SMA

	study the (EFS) Existing Farming System through survey					
3.	Introduction of Goats as a vital component and its performance study				✓	EBC, VMG
4.	The freshwater ornamental fish management units were visited and studied the feasibility of ornamental fish introduction				✓	GY, SMA
5.	Livestock component integration & its management study				✓	VMG, SMA

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

PI: Shri. D. Karunakaran (7)

Co.PIs: Dr. Sirisha Adamala (1) & Dr. S.K. Zamir Ahmed (1)

Duration: 2022-2026 **Project code:** HORTCIARISIL202200100230

Decisions:

i. Dr. R. Kiruba Sankar has been included as Co-PI in the project
ii. Write official letters to the concerned authorities to obtain the required data or information such as soil and water resources data for the development of database.
iii. Characteristics of fish landing centres and fish species data need to be provided by Dr. R. Kiruba Sankar and ground water map may be provided by Dr. T.P. Swarnam.
iv. Suggested to provide online demonstration of Dweep Geoportal after uploading the required information.

Remarks: The house approved continuation of the project

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Configuration of GIS server using web technologies	✓	✓	✓	✓	DK
2.	Development of Front-end GUI	✓	✓	✓	✓	DK
3.	Creation of Maps and update in geospatial database	✓	✓	✓	✓	DK, SA, SKZ
4.	Integration of layers with Web GIS	✓	✓	✓	✓	DK, SA, SKZ

New project

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

PI: Dr. J. Praveenraj (4)

Co-PIs : Dr Ajit Arun Waman (1), Shri. Chittaranjan Raul (2)

Decisions:

i. Include Dr. Ajit Arun Waman as Co-PI instead of Dr. K. Saravanan.
ii. The house approved the project and suggested to submit RPP-I.

Technical Programme for 2023-2024

SN	Activity	Quarters				Person identified
		I	II	III	IV	
1	Literature survey, collection of medicinal plants possessing antiparasitic activity	✓				JPR, AW
2.	Preparation of test solution, phytochemical analysis of selected medicinal plants	✓	✓			JPR, AW
3.	LC50 and LD50 of the test solution on the host			✓	✓	JPR, CR
4.	Invitro antiparasitic activity of the test solution on the selected parasites			✓	✓	JPR, CR

Concluding remarks by Chairman

Chairman, IRC appreciated all the scientists for good work and remarkable contribution. However, he impressed upon the following points:

- Research work should reach to the end user i.e. farmers entrepreneur and outcome/output should have impact at least for 10 years.
- Project must satisfy the mandate of the institute.
- In many of the projects, there is scope for improvement for which regular field IRC will be conducted.
- In order to develop agro-ecotourism model at ICAR-CIARI, a team will be constituted under the Chairmanship of Director, ICAR-CIARI with the following team members from different disciplines such as Dr. S.K. Zamir Ahmed, Dr. Jai Sunder, Dr. P K singh, Dr. I. Jaisankar, Dr. Ajit Arun Waman, Dr. T. Sujatha, Dr. T. Subramani, Dr. R. Kiruba Sankar, Dr. D. Karunakaran, Dr. Sirisha Adamala, Dr. Y. Ramakrishna, Dr. Pooja Bohra, Dr. J. Praveenraj and Dr. Pooja Kapoor. Other members may also be added as and when required.
- Dr. P. Perumal may organize a workshop on heat detection for para veterinary staff in all districts in coordination with KVK.

At the end, the member Secretary, IRC thanked the Chairman and all the scientists for their valuable suggestion, remarks and active participation.

Summary of the projects presented and discussed in IRC 2023

Division	**Ongoing 2022-23**	**Close**	**New project**	**In Hand 2023-24**
Division of Horticulture & Crop Improvement	7	2	0	5
Division of Natural Resource Management	8	3	0	5
Division of Animal Science	9	3	5	11
Division of Fisheries Science	7	1	1	7
TOTAL	**31**	**9**	**6**	**28**

Annexure 1

Man month allocation in different projects

Sr. No.	Name of Scientist	Man Months	Total
I. DIVISION OF HORTICULTURE & CROP IMPROVEMENT			
1.	Dr. P. K. Singh	Project 233 – 3, Project 226- 1, AICRP Seed – 2, AICRP Vegetable -2, NEP-1, Other activities including extension -3	12
2.	Dr. V. Baskaran	Project 219 – 3, Project 187 – 2, AICRP floriculture – 2, NABARD – 3, Other activities including extension - 2	12
3.	Dr. K. Abirami	Project 187 – 3, Project 219 – 2, AICRP fruit – 2, NABARD – 3, Other activities including extension - 2	12
4.	Dr. Pooja Bohra	Project 225 – 7, Project 226 – 3, Other activities including extension - 2	12
5.	Dr. Ajit Arun Waman	Project 226 – 3, Project 225 – 2, New Project fish parasite management – 1, CCS NHM – 2, AICRP Palm -2, Other activities including extension - 2	12
II. DIVISION OF NATURAL RESOURCE MANAGEMENT			
1.	Dr. T.P. Swarnam	Project 222 – 3, Project 232 – 1, AICRP IFS – 3, MPRNL-1, Other activities including extension -4	12
2.	Dr. I. Jaisankar	Project 192 – 3, Project 238 – 3, New project fodder -1, NMPB Pandanus – 2, DUS Noni – 1, SAC Mangrove - 1, Other activities including extension - 1	12
3.	Dr. T. Subramani	Project 195 – 3, Project 222 – 1, Project 238 – 1, New project fodder – 1, AICRP IFS – 1 , Water project -1, NABARD-2, Other activities including extension -2	12
4.	Dr. Sirisha Adamala	Project 207 – 5, Project 230 – 1, Project 234- 1, Water project -1, Other activities including extension - 4	12
III. DIVISION OF ANIMAL SCIENCE			
1.	Dr. Debasis Bhattacharya	Project 237 – 3, Project 236 – 2, Project 227 -1, New Project antimicrobial – 1, AICRP Pig – 1, NADEN/FMD – 1, NABARD -2, Other activities including extension -1	12
2.	Dr. Jai Sunder	New Project antimicrobial – 3, Project 237 – 1, RKVY – 1, AICRP goat – 1, AICRP pig – 1, NADEN/FMD – 1, Other activities including extension - 4	12
3.	Dr. T. Sujatha	Project 236 – 3, Project 237 – 1, New Project antimicrobial -1, RKVY – 1, PSP – 2, NADEN-1, Other activities including extension - 3	12
4.	Dr. P.A. Bala	Project 229 – 3, New fodder Project -3, Project 227 – 1, Project 228-1, RKVY – 1, NABARD – 1, AICRP pig – 1, Other activities including extension - 1	12

Sr. No.	Name of Scientist	Man Months	Total
5.	Dr. A.K. De	Project 227 – 3, Project 229 – 1, Project 237 – 1, Project 218 – 1, New Project-1, AICRP pig – 3, Other activities including extension - 2	12
6.	Dr.K. Muniswamy	New project as PI -8, New project as Co-PI -1, Co-PI-2, NABARD – 2, Other activities including extension - 2	12
7.	Dr. P. Perumal	Project 218 -2, Project 228 – 3, Project 237-1, New goat project -1, New Rabbit project -1, AICRP pig – 1, AICRP Goat – 1, AICRP IFS – 1, Other activities including extension -1	12
8.	Dr. R.R.Alyethodi	New Project rabbit -3, New goat project fecundity -3, Project 218 – 1, Project 228 – 1, New goat Project -1, NABARD -1, AICRP goat -1, Other activities including extension - 1	12
IV. DIVISION OF FISHERIES SCIENCE			
1.	Dr. S.K. Zamir Ahmed	Project 224-5, Project 230-1, Project 232 – 1, NEP (IARI) – 1, Other activities including extension -4	12
2.	Dr. R.Kirubasankar	Project 234 -3, Project 235 - 1, DST – 3, NASPAD – 1, AINP mariculture – 2, Other activities including extension - 2	12
3.	Dr.K.Saravanan	Project 235 – 4, Project 234 – 1, Project 214-1, DST – 1, NASPAD – 3, AINP mariculture – 1, Other activities including extension - 1	12
4.	Dr.J.Praveenraj	New project -4, Project 234-1, Project 235 – 2, DST – 1, AINP mariculture –1, Other activities including extension - 3	12
5.	Shri. D.Karunakaran	Project 230 – 7, Project 224 - 1, Other activities including extension -4	12
6.	Dr. Y. Gladston	Project 231 – 6, Project 232 – 2, Project 224 – 1, Biotech Kisan Hub – 1, Other activities including extension - 2	12
7.	Smti. S.M.Ajina	Project 232 – 6, Project 231 – 3, Biotech Kisan Hub – 1, Other activities including extension - 2	12

The following officials attended the meeting:

1. Dr. Eaknath B. Chakurkar, Director & Chairman, IRC
2. Dr. S.K. Zamir Ahmed, Pr. Scientist & Head, I/c Division of Fisheries Science
3. Dr. P.K. Singh, Pr. Scientist & Head, I/c Division of Horticulture & Crop Improvement
4. Dr. T. P. Swarnam, Pr Scientist & Head, I/c Division of Natural Resource Management
5. Dr. D. Bhattacharya, Pr Scientist
6. Dr. V. Baskaran, Pr. Scientist
7. Dr. T. Sujatha, Pr. Scientist
8. Dr. K. Abirami, Pr. Scientist
9. Dr. I. Jaisankar, Sr. Scientist
10. Dr. T. Subramani, Sr. Scientist
11. Dr. P.A. Bala, Sr. Scientist
12. Dr. R. Kirubasankar, Sr. Scientist
13. Dr. Arun Kumar De, Sr. Scientist
14. Dr. P. Perumal, Sr. Scientist
15. Dr. K. Muniswamy, Scientist
16. Dr. Ajit Arun Waman, Scientist
17. Dr. Pooja Bohra, Scientist
18. Dr. K. Saravanan, Scientist
19. Dr. Rafeeque Rahman Alyethodi, Scientist
20. Dr. J. Praveenraj, Scientist
21. Shri. D. Karunakaran, Scientist
22. Dr. Sirisha Adamala, Scientist
23. Dr. Gladston Y., Scientist
24. Mrs. Ajina S.M., Scientist
25. Dr. Y. Ramakrishna Head KVKs (SA, N&M Andaman &Nicobar)
26. Dr. Jai Sunder, Pr. Scientist, In charge, PME Cell & Member Secretary IRC 2023

(Jai Sunder)
Incharge, PME Cell &
Member Secretary, IRC-2023

F.No. 4-4/PMEC/IRC Proceeding/2023
Dated: 17.06.2023

Copy to: All concerned through e-mail for information and necessary action.
P.S. to Director for information of the Competent Authority.