

PROJECT INFORMATION

Strengthening of vegetable production in coastal region through utilization of local germplasm and strategic introduction of potential commercial vegetables

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Title of the Project

Strengthening of vegetable production in coastal region through utilization of local germplasm and strategic introduction of potential commercial vegetables

Funding Agency

Institute ICAR-CCARI

Total Outlay

69.6 Lakhs

Duration

III years, Date of project Start: 01st August 2025 Likely Date for Completion: 31st July 2028

Single / Multi-Institutional

Single

Principal Investigator

Dr. Chaudhari Ganesh Vasudeo

Co-Investigators

Dr. Raghunandan K. and Dr. Sanjay M. Bandi [Co-PIs, w.e.f .03.10.2025]

Rationale

The characteristic Indian coastal conditions offer rich Horticultural options, the richness of options, however, is realized through comparatively less land under vegetable cultivation and thereby the quantum of produced vegetables from the coastal region. It is crucial therefore to assimilate good vegetable germplasm diversity from coastal regions to utilize it with other available vegetable germplasm for improvement and for the future use. Likewise, potential vegetable varieties of important commercial vegetable crops can be evaluated for their suitability under coastal conditions to enrich the vegetable basket of the coast. Considering these rationales, a new project is constituted for the duration of three years from August 2025 to July 2028.

Research Gaps

There is good amount of diversity related to vegetables species inhabitant in the humid and tropical conditions of coastal region, the utilization of the potential, therefore, can be attempted. Similarly, different commercial vegetable crops that are not in common cultivation under coastal conditions, like French bean, vegetable Cowpea, etc. the released varieties can be evaluated for their feasibility under coastal conditions. Included, therefore, in the present project, acquisition/ purchase/ collection of vegetable germplasm for its utilization and included also the yield evaluation of potential commercial vegetable crops/varieties.

Objectives

i. Acquisition, purchase, collection, through Institute commercial/ non-commercial vegetable varieties/ species ii. Evaluation of commercial/non-commercial vegetable varieties /species for their potential under coastal ecosystem iii. Utilization of potential vegetable species for exploring improvement opportunity

Activities

i. Acquisition, purchase, Collection, of commercial/ non-commercial /local vegetable germplasm/ vegetable varieties/ species ii. field evaluation, of commercial/ non-commercial /local vegetable germplasm/ vegetable varieties/ species iii. use of potential commercial/ non-commercial /local vegetable germplasm/ vegetable varieties/ species

Treatment Details

21 bush type Phaseolus, 5 Vigna types for evaluation in first year of project

Fertilizer Doses

As per standard recommendations

Variety

Varieties and Local hairloom types

Replications

3 Mostly or 4

Observations to be Recorded

Yield and Ancillary characters

GPS Coordinates of Field (Lat , Long)

15°29'46.3"N 73°55'01.5"E

Expected Output

i. Study and utilization of vegetable germplasm from the coast ii. Evaluation on different potential commercial vegetable crops / released varieties, that are not in common cultivation under coastal conditions, for their feasibility of cultivation in Goa

Expected Outcome

The project will benefit to the stakeholders as detailed below, i. Researchers working with coastal vegetable research in particular ii. Students who will further target the studied vegetable germplasm on project completion iii. Farmers from coastal region. The economic impact can only be possible to speculate on project completion as it depends on the number of factors like utilization of vegetable germplasm with its exact mode of utilization. The number of vegetable crops that are found suitable for cultivation in Goa and its matching agroclimatic conditions in other Coastal region.

When the field was developed

Information may be available with Institute

What are crops being cultivated season-wise

As per allocation of trials, however, cauliflower followed by bean were last crops on allotted field.

Soil type

sandy loam

Soil pH, EC, OC

PH below 7

Soil depth

> 30 cm

Soil NPK and Micronutrient status

recent status to be analysed

Common pests and diseases

white flies, aphids, leaf miners, leaf eating caterpillars, pod borers