MBM-CARI-III

Raised bed technology with coconut husk burial for year round vegetable Production

Rationale

Andaman and Nicobar Islands receives more than 3000mm of rainfall in a year from May-Nov and the weather conditions are very hostile during this period. Due to heavy rains, the vegetable production is very limited in these months and there is always scarcity of vegetables in the market and if available, it is beyond the reach of common man because of high prices. The land is a constraint and the demand of vegetables is increasing due to increase in local population as well as tourists. There is always a large and sustained demand of fresh vegetables all round the year.

If proper crop management and diversification is followed the vegetables can be produced round the year under open and controlled conditions. The areas, which are close to the sea or low lands which are flooded during heavy rains are left fallow due to the clayey nature of soil and water logging during heavy rainfall. These lands can be effectively converted into cultivable land by the raised bed method, which helps to overcome the stress of heavy rainfall. Under this method beds were raised to a height of 1 feet from the ground level, the coconut husk which was thrown as waste is chopped and laid over the soil and again covered with soil layer. The vegetables are taken on the raised beds**.** The furrows are used for growing border row trap crops like *Tagetus* and swamp taro. This facilitated survival of vegetable crops against the continuous and heavy rains and rise in the level of seawater. The beds sprayed

AREA				
BED	:	10 x 2 x 50	=	1000 m^2
FURROW	:	10 x 0.3 x 51	=	153 m^2
Total				**1153m^2**

Investment

S.No.	Activities	Amount (Rs)
1.	A total of 33 numbers of man days is required for 50beds preparation @ Rs.130/manday [Inclusive of coconut husk procuring ,chopping & apply in beds] **(One time investment)**	: **4290**

with the liquid *Glyricidia* manure and low cost compost prepared in the fields. Biocontrol agents like *Pseudomonas* and *Trichoderma* should be included in the fields and sprayed regularly to the crops. Composting of the green and dry wastes should be carried out for sustainable production.

Cost of cultivation of Crops taken on 50 beds in three seasons

	May-Aug					Total
Crop	**Amaranthus**	**Cowpea**	**Okra**	**Radish**	**Palak**	
Area (m^2)	100	300	300	100	200	1000
No. of man days	3.5	10.5	12.5	3.5	6	36
Expenditure on inputs(seed/fert/ pesticide/Bio-fertilizers)(Rs)	95	353	352	144	270	1214
Expenditure on man days (Rs)	455	1365	1625	455	780	4680
Total Expenditure (Rs.)	550	1718	1977	599	1050	5894
Yield(kg)	100	1000	450	300	250	2100
Income(Rs)	700	10000	5400	2100	2500	20700
Net Income (Rs)	150	8282	3423	1501	1450	14806

	Sep-Dec					Total
Crop	**Coriander**	**French bean**	**Cowpea**	**Palak**	**Cauliflower**	
Area (m^2)	100	500	100	200	100	1000
No. of man days	4.5	15	6.5	7	6.5	39.5
Expenditure on inputs(seed/fert/ pesticide/Bio fertilizers)(Rs)	141	505	142	270	131	1279
Expenditure on man days (Rs)	585	1950	840	910	845	5130
Total Expenditure (Rs.)	596	2455	987	1050	716	6409
Yield(kg)	30	400	350	250	70	1100
Gross Income(Rs)	900	8000	3500	2500	1750	16650
Net Income (Rs)	304	5545	1917	1450	1384	11086

Crop	Dec. - May					Total
	Chilies	Capsi-cum	Cowpea	Brinjal	Okra	
Area (m^2)	600	100	100	100	100	1000
No. of man days	22	5.5	6.5	5.5	4.5	44
Expenditure on inputs(seed/fert/ pesticide/Bio fertilizers)(Rs)	431	106	142	144	135	958
Expenditure on man days (Rs)	2860	715	845	715	585	5720
Total Expenditure	1886	821	987	729	785	6678
Yield(kg)	500	60	350	200	1250	2360
Income(Rs)	10000	1800	3500	2000	1800	19100
Net Income (Rs)	8114	979	1917	1271	1015	18967

Total No. of man days/Year	119.5 days
Total Income/Year(Rs) from 1153 m^2	56450
Total Expenditure for 1153m^2	18981

Particulars	Gross returns (Rs.)	Total Cost (Rs.)	Net returns (Rs.)*
Net income of I year for 1153m^2	**56450**	**23271**	33179
Total income/year/ ha	489592	201830	287762

* Please note the income may vary depending upon the vegetable crops taken in beds from **Rs 30000/- to Rs 40000/-**.