



Laying out of Demonstration Plots (LODP)

A productivity improvement programme which received overwhelming response

The scheme 'Laying out of Demonstration Plots' in coconut gardens is a productivity improvement programme which commenced under a major programme of Board viz., "Integrated farming in coconut holdings for productivity improvement". The Integrated farming programme had its beginning in the mid VII Plan period (1987-88) in an area of 10,000 ha. The technical content of the programme was to cut and remove the disease affected, senile and unproductive coconut palms at an average rate of 2.8 percentage of the palm population, and replant with genetically superior planting material preferably hybrids, promotion of irrigation facilities and multi species cropping system and extending technical support including institutional credit to the farmers for adopting different enterprises. Incentive

Table-1

No. of clusters formed from 2005-06 to 2014-15				
State	No. of Clusters	Area (ha)	No. of Beneficiaries	Exp (Rs in lakhs)
Kerala	556	16482.27	78269	4779.509
Tamil Nadu	271	10206.61	13190	2778.41
Karnataka	145	5953.32	9253	1668.953
Andhra Pradesh	395	12960.17	18701	2255.613
Odisha	32	1186.8	3253	387.9832
Maharashtra	65	1300.33	4032	388.1927
West Bengal	20	706.96	2607	137.5292
Tripura	0	0	0	0.1958
Assam	33	1114.73	4198	70.0478
Chattisgarh	1	2.43	3	0.7988
Grand Total	1518	49913.62	133506	12467.2325

Table-2: Yearwise progress in cluster formation

LoDP (Direct) - Cluster Programme since 2005					
Year	State	No. of clusters	Area (ha)	No. of Beneficiaries	Exp (Rs in lakhs)
2005-06	Kerala	4	136.53	923	32.13
	Karnataka	2	50	62	8.65
	Tamil Nadu	1	25	25	1.05
	Andhra Pradesh	1	30	56	6.65
	Odisha	2	50	61	9.45
	Total	10	291.53	1127	57.93
2006-07	Kerala	11	291	1416	55.12
	Karnataka	2	90	126	22.78
	Andhra Pradesh	3	67.24	114	17.00
	Odisha	1	25	45	13.12
	Assam	1	13.6	246	2.29
	Chattisgarh	1	2.43	3	0.37
Total	19	489.27	1950	110.68	
2007-08	Kerala	104	4501	25030	613.34
	Karnataka	5	363	527	73.98
	Tamil Nadu	20	684	823	90.77
	Andhra Pradesh	6	396	631	70.17
	Odisha	4	100	182	21.87
	West Bengal	2	50	344	7.66
	Assam	0	0	0	2.3
	Total	141	6094	27537	880.09
2008-09	Kerala	112	2857	15440	1222.14
	Karnataka	12	687	988	158.36
	Tamil Nadu	35	1230	1709	288.34
	Andhra Pradesh	18	893	1364	205.31
	Odisha	6	200	524	52.49
	West Bengal	2	50	133	17.50
	Assam	1	29	178	2.36
	Tripura	0	0	0	0.20
	Chattisgarh	0	0	0	0.43
	Total	186	5946	20336	1947.12

subsidies were envisaged at Rs.75 per palm for cutting and removal, Rs.4 per seedling for replanting, Rs. 1000 for irrigation facilities like pumpsets/irrigation sources and Rs.50 per ha for promotion of multi-species cropping. An institutional support proposed was for the purchase of milch animals and also for starting



other enterprises like bee keeping, piggery, poultry etc. Multispecies cropping was envisaged at 60 per cent of the operational area i.e. in 6000 ha of the total operational area of 10,000 ha. No financial assistance was envisaged for fertilizer application. The programme was implemented by the Department of Agriculture, through the Panchayat level Krishibhavans. Field level staff for the state was also provided for implementing the programme. The total financial outlay of Rs.56.775 lakhs was to be shared on 50:50 basis by the Board and the State Government. A credit component of Rs. 227.5 lakhs was a part of the financial outlay of the programme. The programme was implemented in 20,000 ha from 1987-88 to 1991-92.

Expansion of the Programme

A national seminar on 'Production and productivity of coconut in India' was held at Trivandrum on 27th September 1986 jointly organised by the Ministry of Agriculture, Government of India and the Govt.

of Kerala. The recommendations emanated from the seminar formed the basis for formulating future production and productivity oriented programmes under the State and

Central sectors. By this time the root wilt disease was spread in more than 4 lakh hectares in Kerala. It was however experimentally proved that considerable yield increase

2009-10	Kerala	101	2718.6	14210	792.54
	Karnataka	12	757.3	1046	211.18
	Tamil Nadu	48	1921.4	2207	509.22
	Andhra Pradesh	33	997.31	2482	258.25
	Odisha	5	200	693	70
	West Bengal	4	100	352	26.25
	Assam	11	105	1499	16.99
	Total	214	6799.61	22489	1884.43
2010-11	Kerala	54	1295.5	6552	547.8
	Karnataka	19	1012.5	1279	259.86
	Tamil Nadu	51	2003.3	2361	662.58
	Andhra Pradesh	25	1002.6	1508	340.77
	Odisha	4	200	527	69.99
	Maharashtra	13	305	531	38.81
	West Bengal	2	50	230	26.18
	Assam	4	27.6	662	21.27
Total	172	5896.5	13650	1967.26	
2011-12	Kerala	32	847.65	4522	256.913
	Karnataka	6	359.95	634	225.444
	Tamil Nadu	15	455.94	836	398.89
	Andhra Pradesh	9	277.24	645	194.676
	Odisha	1	50	92	41.671
	Maharashtra	7	0	440	75.001
	West Bengal	0	203.65	436	9.636
	Assam	2	27.49	0	0
Total	72	2221.92	7605	1202.231	
2012-13	Kerala	99	2709	7616	490.2184
	Karnataka	18	840.48	1088	161.85
	Tamil Nadu	27	844.46	1226	153
	Andhra Pradesh	14	473.91	1111	66.5352
	Odisha	4	207	825	39.739
	Maharashtra	25	527.98	1621	97.7317
	West Bengal	1	25	68	4.375
	Assam	4	42.91	675	11.269
Total	192	5670.74	14230	1024.7183	
2013-14	Kerala	39	1125.99	2560	604
	Karnataka	24	706.65	1264	247.03
	Tamil Nadu	17	505.59	567	204.3
	Andhra Pradesh	29	1108.23	377	201.79
	Odisha	4	130	263	50.76
	Maharashtra	18	407.7	1301	114.6
	West Bengal	1	25	99	7.38
	Assam	5	436.41	400	8.76
Total	137	4445.57	6831	1438.62	
2014-15	Kerala	0	0	0	165.31
	Karnataka	45	1086.44	2239	299.82
	Tamil Nadu	57	2536.92	3436	470.26
	Andhra Pradesh	257	7714.64	10413	894.46
	Odisha	1	24.80	41	18.89
	Maharashtra	2	59.65	139	62.05
	West Bengal	8	203.31	945	38.55
	Assam	5	432.72	538	4.81
Total	375	12058.48	17751	1954.15	
Grand Total	1518	49913.62	133506	12467.23	

could be achieved through adequate management of the affected gardens. The basic requirements identified for maintaining optimum productivity were irrigation, optimum use of manures and fertilizers, cutting and removal of senile, unproductive and disease affected palms, promotion of intercropping, mixed farming etc. These practices not only improve the income and employment from the existing holdings but also enrich the fertility of soil. The importance of providing irrigation facilities in coconut as a means of increasing the production and productivity even in the disease affected areas was emphasized by the participants in the above seminar. Irrigation facilities would also facilitate intercropping and mixed cropping in the gardens. Therefore an integrated programme encompassing provision of irrigation facilities, replacement of senile and disease affected palms, replanting with quality planting material, optimum use of fertilisers and promotion of multispecies cropping was, therefore felt imperative. Thus the recommendation of the seminar was to expand the integrated farming scheme to a wider area of 100,000 hectares.

A massive programme with coverage of 100,000 ha was thus formulated by the Board during the VIII Plan Period which commenced from 1992-93. From the field level experiences gained and the feed back received from the implementation till then, the quantum of subsidy under various components was increased and the mode of implementation was modified during VIII Plan period. There was a directive from the Government of India to explore the possibility of extending the programme to other major coconut growing states as well. This was in the context that diseases similar to root wilt like Thanjavur wilt, Tatipaka wilt and Ganoderma wilt were causing damages to the coconut cultivation in Tamilnadu,

Table-3: Statewise progress in cluster formation since 2005

Kerala											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	4	11	104	112	101	54	32	99	39	0	556
Area (ha)	136.53	291	4501	2857	2718.6	1295.5	847.65	2709	1125.99	0	16482.27
No. of Beneficiaries	923	1416	25030	15440	14210	6552	4522	7616	2560	0	78269
Exp (Rs in lakhs)	32.13	55.12	613.34	1222.1376	792.54	547.8	256.913	490.2184	604	165.31	4779.509
Karnataka											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	2	2	5	12	12	19	6	18	24	45	145
Area (ha)	50	90	363	687	757.3	1012.5	359.95	840.48	706.65	1086.44	5953.32
No. of Beneficiaries	62	126	527	988	1046	1279	634	1088	1264	2239	9253
Exp (Rs in lakhs)	8.65	22.78	73.98	158.3586	211.18	259.86	225.444	161.85	247.03	299.82	1668.953
Tamil Nadu											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	1	0	20	35	48	51	15	27	17	57	271
Area (ha)	25	0	684	1230	1921.4	2003.3	455.94	844.46	505.59	2536.92	10206.61
No. of Beneficiaries	25	0	823	1709	2207	2361	836	1226	567	3436	13190
Exp (Rs in lakhs)	1.05	0	90.77	288.3402	509.22	662.58	398.89	153	204.3	470.26	2778.41
Andhra Pradesh											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	1	3	6	18	33	25	9	14	29	257	395
Area (ha)	30	67.24	396	893	997.31	1002.6	277.24	473.91	1108.23	7714.64	12960.17
No. of Beneficiaries	56	114	631	1364	2482	1508	645	1111	377	10413	18701
Exp (Rs in lakhs)	6.65	17	70.17	205.3114	258.25	340.77	194.676	66.5352	201.79	894.46	2255.613
Odisha											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	2	1	4	6	5	4	1	4	4	1	32
Area (ha)	50	25	100	200	200	200	50	207	130	24.8	1186.8
No. of Beneficiaries	61	45	182	524	693	527	92	825	263	41	3253
Exp (Rs in lakhs)	9.45	13.12	21.87	52.4932	70	69.99	41.671	39.739	50.76	18.89	387.9832
West Bengal											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	0	0	2	2	4	2	0	1	1	8	20
Area (ha)	0	0	50	50	100	50	203.65	25	25	203.31	706.96
No. of Beneficiaries	0	0	344	133	352	230	436	68	99	945	2607
Exp (Rs in lakhs)	0	0	7.66	17.4982	26.25	26.18	9.636	4.375	7.38	38.55	137.5292
Assam											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	0	1	0	1	11	4	2	4	5	5	33
Area (ha)	0	13.6	0	29	105	27.6	27.49	42.91	436.41	432.72	1114.73
No. of Beneficiaries	0	246	0	178	1499	662	0	675	400	538	4198
Exp (Rs in lakhs)	0	2.29	2.3	2.3588	16.99	21.27	0	11.269	8.76	4.81	70.0478
Chattisgarh											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	0	1	0	0	0	0	0	0	0	0	1
Area (ha)	0	2.43	0	0	0	0	0	0	0	0	2.43
No. of Beneficiaries	0	3	0	0	0	0	0	0	0	0	3
Exp (Rs in lakhs)	0	0.37	0	0.4288	0	0	0	0	0	0	0.7988

Maharashtra											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	0	0	0	0	0	13	7	25	18	2	65
Area (ha)	0	0	0	0	0	305	0	527.98	407.7	59.65	1300.33
No. of Beneficiaries	0	0	0	0	0	531	440	1621	1301	139	4032
Exp (Rs in lakhs)	0	0	0	0	0	38.81	75.001	97.7317	114.6	62.05	388.1927
Tripura											
Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
No. of clusters	0	0	0	0	0	0	0	0	0	0	0
Area (ha)	0	0	0	0	0	0	0	0	0	0	0
No. of Beneficiaries	0	0	0	0	0	0	0	0	0	0	0
Exp (Rs in lakhs)	0	0	0	0.1958	0	0	0	0	0	0	0.1958

Andhra Pradesh and Karnataka respectively. Though these diseases were not so widespread, eradicating the foci of infection and thereby arresting further spread of the diseases was a matter of concern. Therefore a decision was taken by the Govt. of India to extend the programme for integrated farming in coconut holdings for productivity improvement to other traditional belts viz. Karnataka, Tamilnadu, Andhra Pradesh, Goa, Maharashtra, Andaman & Nicobar Islands, Lakshadweep and Pondicherry during the VIII Plan period. The technical content remained more or less same as that of the programme implemented during the VII Plan period, except the additional inclusion of components like assistance for fertilizer application and plant protection measures. Quantum of subsidy was enhanced to Rs.200 per palm for cutting and removal, Rs. 5 per palm for replanting, Rs. 5 and Rs. 3 per palm for fertilizer use and plant protection and Rs. 200/-per ha for multispecies cropping. The programme had 100 per cent funding by the Board instead of the pattern of 50:50 basis hitherto followed. Irrigation component was, however, kept out of the purview of the programme under the pretext that it would be a duplication of the effort of the State Governments as well as that of National Commission for Plastics in Agriculture (NCPA), Govt. of

India. The implementation of the programme without including the irrigation component was however, a major impediment experienced in the field adoption. The area covered under the programme was 136800 ha of which one lakh was from Kerala.

Direct Implementation by Coconut Development Board

With a view to assess the impact of the programme, Board had taken up the implementation directly in selected Panchayaths in Ernakulam District, Kerala, utilizing the then existing manpower. A socio-economic survey for collecting the household details of 11 wards of Kumbalam Panchayat and one ward of Kadamakudy Panchayath was conducted in 1994-95 by engaging 38 enumerators. The survey covered 4945 households in Kumbalam Panchayat and 455 households in Kadamakudy Panchayath. Disease affected/unproductive palms were marked for removal. During 1995-96 the cutting and removal of palms and disbursement of subsidy started. Seminars were conducted in these areas in association and active involvement of Krishi Bhavans, Panchayaths, Kerakarshaka Sangham and Ernakulam Social Service Society to create awareness among the farmers. In Moolampilly, 438 palms and in Kumbalam, 2925 palms were removed and subsidy was released. In 1996- 97 also 2104 palms were cut and removed directly

by Board. Planting material was intercrops was distributed to farmers. 50ha to adopt inter cropping in coconut for d holdings and thereby increasing the adopp income from unit holdings.

Introduction of LODP

During the IX Plan period the programme was altered slightly and a consolidated financial assistance of Rs. 35,000 in two equal annual installments was introduced for adopting integrated management practices. Under the Productivity improvement programme, 'Laying out of Demonstration Plots' and financial assistance to Organic Manure Units (OMU) bifurcated into two components. Cutting and removal component was thereafter treated separately. This modification enabled to bring the northern districts of Kerala also under the productivity improvement programme.

Fragmented holdings do not render themselves viable for the optimum utilization of resources and the adoption of improved technologies. To overcome the unremunerative nature of small holdings and to augment the production and productivity of smaller holdings, group management of resources was felt appropriate to overcome the inherent weaknesses of the fragmented holdings. It was therefore felt essential to create a platform for a group approach for overcoming these problems. Various frontline demonstrations indicated that the yield of coconut

can be improved by more than 100 percent through collective approach. This realization gave way for implementation of LODP in cluster approach. Thus LODP in cluster mode with direct intervention of Board was introduced on trial basis in 2005-06 in Alappuzha district in a limited area. Taking the success of the programme in Kerala, the cluster approach of LODP was extended to other potential states through the network of field offices of the Board. The implementation was in contiguous areas of 25ha to 50ha to make the cluster a vehicle for dissemination of technology and adoption of management practices for achieving higher productivity and increased income. In all these years a portion of fund under this programme was utilized for implementing the scheme directly by state governments as well.

Implementation of LODP by clusters- advantages

Reducing cost of production, augmentation of farmer's income, improving the marketable surplus, value addition through processing, group dynamism, promoting farmer participatory technology transfer and achieving maximum efficiency by harnessing and sharing the strength and wisdom of farmers were the immediately envisaged objectives of the cluster

Table-4: Growth rate achieved by different states from 1987-88 to 2012-13

Kerala			
Year	Area	Production	Productivity
1987-88	775.40	3346	4303
2012-13	796.16	5798.04	7264
Growth Rate	0.11	2.22	2.12
Tamil Nadu			
1987-88	189.50	1578.30	8329
2012-13	465.11	6917.25	14872
Growth Rate	3.66	6.089	2.35
Karnataka			
1987-88	213.10	1096.50	5145
2012-13	513.1	6058.86	11808
Growth Rate	3.58	7.08	3.38
Andhra Pradesh			
1987-88	48.80	480.30	9842
2012-13	128.9	1933.07	14997
Growth Rate	3.96	5.728	1.70
All India			
1987-88	1346.00	7269.90	5401
2012-13	2136.67	22680.03	10615
Growth Rate	1.87	4.67	2.74

approach. The strategy helped in improving the efficiency of land and water use, adoption of a community approach in plant protection, procurement and application of inputs and intercropping. The clusters also form the basic unit for primary processing of coconut which will result in enhanced income to the coconut farmers. The cluster involves the participation of nearly 200 farmers and all the farmers become beneficiaries of the

programme. This arrangement was an important tool for overcoming the problems associated with scarce resources, fragmentation and dispersion of coconut cultivation and inadequate levels of marketable surpluses. Utmost transparency is assured in the entire implementation which encourages the participating farmers as well as other implementing agencies. Within each cluster, Chairman, General Convener, Group leaders, and other

Table-5: Growth rate achieved by non-traditional states

States	1987-88			2012-13			Increase during 25 years			% increase			Growth Rate		
	Area	Pdn	Pdvty	Area	Pdn	Pdvty	Area	Pdn	Pdvty	Area	Pdn	Pdvty	Area	Pdn	Pdvty
Odisha	27.10	113.7	4196	54.29	380.93	7017	27.19	267.23	2821	100	235	67	2.818	4.955	2.079
West Bengal	19.10	248.5	13010	29.20	369.31	12648	10.10	120.81	-362	53	49	-3	1.712	1.597	-0.113
Goa	23.20	106.90	4608	25.71	122.71	4773	2.51	15.81	165	11	15	4	0.412	0.553	0.141
Maharashtra	7.80	88.9	11397	28.88	187.47	6676	21.08	98.57	-4721	270	111	-41	5.376	3.029	-2.117
Gujarat	0.00	0	0	21.12	322.39	15265	21.12	322.39	15265	0	0	0	0	0	0
Assam	9.10	79.9	8780	22.15	160.21	7233	13.05	80.31	-1547	143	101	-18	3.622	2.822	-0.772
Pondicherry	1.70	22.8	13412	1.95	33.68	17272	0.25	10.88	3860	15	48	29	0.550	1.573	1.017
Tripura	5.60	3.3	589	6.47	27.45	4243	0.87	24.15	3654	16	732	620	0.579	8.843	8.217
A&N Islands	22.80	80	3509	21.88	129.97	5940	-0.92	49.97	2431	-4	62	69	-0.165	1.960	2.128
Lakshadweep	2.80	24.8	8857	2.57	70.91	27591	-0.23	46.11	18734	-8	186	212	-0.342	4.292	4.650
Nagaland	0.00	0	0	1.30	15.11	11623	1.30	15.11	11623	0	0	0	0	0	0

committee members are selected for easy and smooth implementation by dividing the total cluster area into sub groups of 5 ha each. Community Pest and Disease control programme is carried out against common pests and diseases to reduce the cost. Red palm weevil, a common, but very serious pest is trapped on group basis using pheromone traps in contiguous areas. Field visits and interactions are done on weekly, fortnightly and monthly basis, which enable easy and quick exchange of ideas for adoption of technologies. All farmers in the cluster become beneficiaries of the programme irrespective of the area they possess. The cluster approach has become more acceptable among the farming community and till 2014-15, 1499 clusters in 49993 ha have been formed all over the country. A total of 1.337 lakh farmers have been benefited under the scheme for which an amount of Rs. 124.85 crore has been utilized by the Board (Table 1)

Year wise and State wise progress made under this scheme is shown in Table 2 & 3.

Impact of Productivity Improvement Programme

An analysis of the productivity increase in the country as a result of implementation of the programme from 1987-88 is quite relevant. If we take the first decade since the commencement of the programme ie, from 1987-88 to 1999-97, the national productivity which was 5179 nuts per ha in 1986-87, could be elevated to 7779 nuts per hectare by the end of the VIII Plan (1996-97). The corresponding figures in case of Kerala where lions' share of the fund was utilized, were 4493 nuts and 6013 nuts per hectare.

It was encouraging to note that the intensity of the root wilt disease had also reduced considerably during the period than in the mid 80's. Among the eight districts, in 1985, the highest disease incidence was recorded in Kottayam district, which was 75.63 percent; while

Table-6: All India Changes in the production and productivity of coconut

Year	Production (Million nuts)	Absolute change in production (Million nuts)	Compound growth rate (in percent per annum)	Productivity (nuts/ha)
1950-51	3292.3	-	-	5255
1955-56	4224.4	932.1	5.11	6523
1960-61	4639.1	414.7	1.89	6470
1965-66	5035.4	396.3	1.65	5698
1970-71	6075.0	1039.6	3.83	5811
1975-76	5829.4	245.6	0.82	5449
1980-81	5942.0	112.5	0.38	5485
1985-86	6770.3	828.3	2.64	5524

growth rate 0.143

in the survey conducted in 1996, Alappuzha district recorded the highest disease incidence, but it was only 48.03 percent. While the mean intensity of disease occurrence in the eight districts was 32.37 per cent in 1984, the corresponding figure as per 1996 survey was only 24.05 per cent. This reduction in the disease intensity could be attributed to the beneficial impact of the programme.

Coming to an overall analysis of the impact of the LODP programme on the productivity of the country, different states present varied pictures. Kerala exhibited a growth rate of 2.117 during the span of two and half decades (1987-88 to 2012-13) while Tamil Nadu, Karnataka and Andhra Pradesh are in the order of 2.346, 3.379 and 1.699 (Table 4).

Other states which recorded significant improvement where LODP was taken up are Odisha, and Tripura (Table 5).

The country recorded a growth rate of 2.74 during the corresponding period. However, it looks significant when we see that growth rate in productivity of India for the three and half decades prior to commencement of the programme was only 0.143 (Table 6)

Benefit of the LODP programme.

Implementation of LODP programme ensured profitability of coconut cultivation through assured yield increase and reduction in pests and disease problems. Farmers could fetch higher income through the sale

of multiple products like vegetables, fruits, planting material, vermicompost, milk and other animal products. Application of organic and inorganic inputs coupled with regular irrigation enriched the fertility status and water holding capacity of the soil. Further, reduction in cost of cultivation to the extent of 25% was visible as a result of collective procurement of inputs and group effort in production management. The farmers were able to sell the produce from main crops, intercrop and could fetch regular income. Technology adoption became a regular practice of the farmers.

Now the implementation of LODP has taken over by Farmer Producers' Organizations under the three tier system of Coconut Producers' Societies, Federations and Coconut Producers' Companies. The role that played by government agencies is now fruitfully shouldered by farmer collectives with more responsibility and inclusiveness. LODP programme has become one conduit for the forward and backward linkages among various stakeholders in coconut sector. Coconut farmers' collectives built a strong base with powerful bargaining power and influential voice as never seen before through the prestigious productivity improvement programme of Board which has been in vogue for two and half decades. ■

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