

Smallholder Sole Coconut Budget.

THE following sole coconut budget has been used in Papua and New Guinea by the Native Loans Board as a guide for smallholder indigenous development. It should not be regarded as an unalterable and final budget as many of the assumptions and data will need to be adjusted and corrected in the future as more factual information becomes available.

This model budget is based on family labour, with the borrower commencing operations on an unimproved leasehold block without established subsistence gardens or any capital. The loan repayment programme is calculated to allow a steadily rising net income which the borrower may use to improve his standard of living and/or further development of his property.

PHYSICAL DATA.

Labour—Family units of labour available, 1.5.

Annual number of working days—290.

Annual labour units available—435.

Units per operation—

	labour units per acre.
Felling, etc.	60
Nursery (12 units per year)	4
	(per acre planted)
Line, hole, plant	9
Maintenance—ring weed and pest control	
Years 1, 2, 3 and 4—9 times per year	3
Years 5, 6 and 7	4.5
Harvest—heap, cut and carry	15
Construction of dryer—28 units	
Subsistence	80

Yields—

Bearing Year	cwt. per acre.
Year 7	3
Year 8	4
Year 9	5
Year 10	6
Year 11	7
Year 12	8

Planting density 27 feet. 70 trees per acre.

Bagging—Average weight per bag—160 lb.

Bags per year per acre—related to yield.

Year 7	2
Year 8	3
Year 9	3
Year 10	4
Year 11	5
Year 12	6

Dryer—Ceylon type 4-bag capacity—constructed in Year 6. Replaced every 6th Year.

Pest Control—*Brontispa*—spraying of palms until 4 years old.

DEVELOPMENT PROGRAMME.

Year 1.

Clear, etc., 4½ acres—60 units per acre	270
Nursery—4 units per acre	16
Line plant, etc.—4 acres—9 units per acre	36
Maintain—4 acres—3 units per acre	12
Subsistence—½ acre garden	40
Planted—4 acres	374 (+ 61)

Year 2.

Clear, etc.—4 acres	240
Nursery—4 acres	16
Line, plant, etc.—3½ acres + ½ acre (garden)	36
Maintain—8 acres	24
Subsistence—½ acre	40
Planted—8 acres	356 (+ 79)

Year 3.

Clear, etc.—acres	240
Nursery	16
Line, plant, etc.—acres	36
Maintain—12 acres	36
Subsistence—½ acre	40
Planted—12 acres	368 (+ 67)

Year 4. Increase garden area to 1 acre.

Clear— $3\frac{1}{2}$ acres	....	....	210
Nursery—3 acres	....	....	12
Line, plant, etc.— $2\frac{1}{2}$ acres + $\frac{1}{2}$ acre	....	....	27
Maintain—15 acres	....	....	45
Subsistence—1 acre	....	....	80

Planted 15 acres 374 (+ 61)

Year 5.

Clear—1 acre for garden	....	....	60
Maintain—4 acres at 4.5 units	....	....	18
Maintain 11 acres at 3.0 units	....	....	33
Subsistence—1 acre	....	....	80

Planted—15 acres 191 (+ 244)

Year 6.

Clear, etc.—1 acre for garden	....	....	60
Maintain—8 acres at 4.5 units	....	....	36
Maintain 7 acres at 3.0 units	....	....	21
Dryer Construction	....	....	28
Subsistence—1 acre	....	....	80

Planted—15 acres 225 (+ 210)

Year 7.

Maintain—12 acres at 4.5 units	....	....	54
Maintain 3 acres at 3.0 units	....	....	9
Harvest—15 units per acre—4 acres	....	....	60
Subsistence—1 acre	....	....	80

Planted—15 acres 203 (+ 232)

Sufficient labour to operate the dryer, to clear new land for garden in Year 6 onwards.

Full Production.

Maintain—15 acres at 4.5 units	....	....	68
Harvest—15 acres at 15.0 units	....	....	225
Subsistence—1 acre	....	....	80

373 (+ 62)

FINANCIAL DATA

	£
Rations—first six months	70
Cash Allowance—£4 per month to Year 5 (Then £12 per annum to end of Year 7). Per annum	48
Tools and Equipment, etc.—first year	20
Replacement at £2 per annum from Year 2	2
House Material—galvanised iron and water tank	60

Seed nuts—3d. per nut.

Assume—150 nuts planted in nursery per acre
£2 per acre

Pest Control—Spray equipment 3
Dieldrin—assume 25 per cent. of palms infested—cost 15s. per acre 15s.

Dryer—Ceylon type 30
Assume life—5 years.

Bags—4s. each new
Twine, ink, etc.—10 per cent. of bag cost.
15 bags per ton.

Bags Cost per Year

	£
Year 7	2
Year 8	5
Year 9	8
Year 10	11
Year 11	14
Year 12	16
Year 13	18
Full production—15 acres	20

Stencil—heavy gauge £4

Selling price of copra—sold direct to C.M.B. Net return to grower.

Income—Net return to grower £45 and £50 per ton.

	£	£
Year 7—4 acres at 3cwt. per acre	27	30
Year 8—4 acres at 4 cwt. per acre 4 acres at 3 cwt. per acre	63	70
Year 9—4 acres at 5 cwt. per acre 4 acres at 4 cwt. per acre 4 acres at 3 cwt. per acre	108	120
Year 10—4 acres at 6 cwt. per acre 4 acres at 5 cwt. per acre 4 acres at 4 cwt. per acre 3 acres at 3 cwt. per acre	155	173
Year 11—4 acres at 7cwt. per acre 4 acres at 6 cwt. per acre 4 acres at 5 cwt. per acre 3 acres at 4 cwt. per acre	189	210
Year 12—4 acres at 8 cwt. per acre 4 acres at 7 cwt. per acre 4 acres at 6 cwt. per acre 3 acres at 5 cwt. per acre	223	248
Year 13—8 acres at 8 cwt. per acre 4 acres at 7 cwt. per acre 3 acres at 6 cwt. per acre	248	275
Year 14—12 acres at 8 cwt. per acre 3 acres at 7 cwt. per acre	263	293
Full production—Year 15	270	300

ESTABLISHMENT COSTS.
COPRA 15 ACRES. PRICE—£50 PER TON.

	Year 1.	Year 2.	Year 3.	Year 4.	Year 5.	Year 6.	Year 7.	Year 8.	Year 9.	Year 10.	Total end of Year 8
Subsistence—Rations	70	—	—	—	—	—	—	—	—	—	70
Cash Allowance	48	48	48	48	48	12	12	—	—	—	264
House Material	60	—	—	—	—	—	—	—	—	—	60
Tools, etc.	20	2	2	2	2	2	2	2	2	2	34
Seed Nuts	8	8	8	6	—	—	—	—	—	—	30
Spray Unit	3	—	—	—	—	—	—	—	—	—	3
Pest Control, spray	3	3	4	5	4	4	3	3	3	2	29
Dryer—depreciation, etc.	—	—	—	—	—	30	6	6	6	6	42
Stencil	—	—	—	—	—	4	—	—	—	—	4
Bags, etc.	—	—	—	—	—	—	2	5	8	11	7
Total Annual Outflow	212	61	62	61	54	52	25	16	19	22	543
Income	—	—	—	—	—	—	30(a)	70	120	173	—
Debit Balance	212	61	62	61	54	52	25	16			543
Interest—4½ per cent.	10	3	3	3	3	3	1	1			27
Total Annual Debit	222	64	65	64	57	55	26	17			570
Cumulative debit b/d	—	222	296	375	457	536	616	671			—
Interest on cumul. debit	—	10	14	18	22	25	29	32			150
Total cumul. debit	222	296	375	457	536	616	671	720			720

(a) In lieu of cash allowance Year 8.

REPAYMENT OF LOAN.

COPRA AT £45 PER TON.

Year	Gross Income.	Gross Income less operating expenses. (a).	Repayments.	Loan and Interest less repayments brought down.	Net Income.
9	108	108 — 14 = 94	25	720 + 34 — 25 = 729	69
10	155	155 — 17 = 138	50	729 + 35 — 50 = 714	88
11	189	189 — 20 = 169	75	714 + 34 — 75 = 673	94
12(b)	223	223 — 46 = 177	75	673 + 32 — 75 = 630	102
13	248	248 — 24 = 224	120	630 + 30 — 120 = 540	104
14	263	263 — 26 = 237	125	540 + 26 — 125 = 441	112
15	270	270 — 26 = 244	125	441 + 21 — 125 = 337	119
16	270	270 — 26 = 244	125	337 + 16 — 125 = 228	119
17	270	270 — 26 = 244	125	228 + 11 — 125 = 114	119
18(b)	270	270 — 50 = 220	119	114 + 5 — 119 = 0	101

(a) Operating expenses limited to dryer depreciation and bags.

(b) Years 12 and 18—construction of new dryer.

REPAYMENT OF LOAN.
COPRA AT £50 PER TON.

Year	Gross Income.	Gross Income less operating expenses. (a).	Repayments.	Loan and Interest less repayments brought down.	Net Income.
9	120	120 — 14 = 106	25	720 + 34 — 25 = 729	81
10	173	173 — 17 = 156	50	729 + 35 — 50 = 714	101
11	210	210 — 20 = 190	75	714 + 34 — 75 = 673	115
12(b)	248	248 — 46 = 202	100	673 + 32 — 100 = 605	102
13	275	275 — 24 = 251	125	605 + 29 — 125 = 509	126
14	293	293 — 26 = 267	125	509 + 24 — 125 = 408	142
15	300	300 — 26 = 274	125	408 + 19 — 125 = 302	149
16	300	300 — 26 = 274	125	302 + 14 — 125 = 191	149
17	300	300 — 26 = 274	125	191 + 9 — 125 = 75	149
18(b)	300	300 — 50 = 250	79	75 + 4 — 79 = 0	171

(a) Operating expenses limited to dryer depreciation and bags.

(b) Years 12 and 18—construction of a new dryer.