

SLATTADALE

PLAN OF OPERATIONS

1960-1961

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Date: November, 1960.

Approved by: R.A.Innes,
February, 1961.



Chapter 1

a) Situation and Extent.

The administrative centre is at Slattadale, reference 19/888720, with an Assistant Forester at Aultbea, office reference 19/877680.

Slattadale Forest lies in Wester Ross and has a total area of 2106 acres, grouped around the three separate centres of Kinlochewe, Slattadale (on south shore of Loch Maree) and Aultbea. The potential forest area is 1600 acres, of which 939 acres were stocked at 1.10.59, 71 acres of this being natural Scots pine on Eilean Ruairidh Mor.

At Kinlochewe, there are three separate blocks and at Aultbea, there are six.

b) Civil Administration.

The County Council is Ross & Cromarty C.C.

The whole Forest lies within Gairloch Parish in the Parliamentary Constituency of Ross & Cromarty.

c) Nearby Towns.

Dingwall (population 3500) is the County town and is over 50 miles from Slattadale. The nearest villages are Kinlochewe, Gairloch, Poolewe and Aultbea, all of small population, the labour being employed mainly in crofting, tourism, Naval defence, salmon fishing and local services work. Labour supply, consequently, is precarious for forestry.

d) Communications and Transport.

1. Railways.

The nearest station is Achnasheen, 20 miles south-east of Slattadale, on the Dingwall-Kyle single-track line. Loading facilities are adequate; there is a naval-operated crane at the station.

2. Roads.

Roads are single-track throughout the area and are seriously congested by tourist traffic from June to September. Articulated vehicles can operate only with difficulty at any time. Timber loading on the County road is impossible during the tourist season. Forest roads serve all areas currently in production except, an isolated area of 18 acres at the west-end of Slattadale. Loch-side roads tend to be eroded by storms during winter.

3. Ports & Harbours.

There is a good tidal harbour at Gairloch.

e) Maps.

6" O.S. Maps for Slattadale area, Loch Maree are Sheet LVII.

6" O.S. Maps for Beinn Eighe and Kinlochewe are Sheets LXXXIII, LXXI.

6" O.S. Maps for Inverewe, Aultbea and Laide, etc. XXXII, XIX.

1" O.S. Maps (1955 Revision) are Nos. 19, 26.



Chapter 2

SITE

A) Geology.

Briefly stated, the trend in solid rocks from Kinlochewe to Aultbea is from Moine schist, through Cambrian quartzite, Lewisian rocks and thence to Torridonian sandstone.

The whole forest area was glaciated and covered by shallow rocky drifts of mainly Torridonian origin. Kinlochewe section is the exception and belongs more typically to Strath Bran. The difficult mineral soils are those of high boulder content.

Beinn Eighe
at North
Kinlochewe section is on Moine schists overlain by fertile schistose drift of abundant depth and good content of fines. Beinn Eighe section is on Cambrian quartzite, completely masked by drift material of mainly quartzite origin but with some hornblend in morainic knolls towards the south end. The moraines are low in fines and have a high boulder content at the south end. This material is of much lower fertility than the Moine drifts.

Slattadale proper is located mainly on Lewisian gneiss with hornblend intrusions but there are also several areas of Torridonian sandstone and the latter predominates in the bed of Slattadale Burn. Rock outcrops are frequent but there is a general overlay of drift of mainly Torridonian origin. The drift is sparse, bouldery, compact and infertile around Slattadale Burn while around the Garbhaig Burn it is more abundant, more fertile and has greater fines content. There are fertile alluvial silts and gravels around the mouths of both burns.

Inverewe section lies on both sides of a promontory of Torridonian sandstone with skeletal Torridonian drift on the seaward Compt. but locally more abundant drift on the inland Compt.

Goose Loch section is again on Torridonian sandstone, masked by a clay deposit of apparently lacustrine origin with bouldery drift affecting only the upper slopes.

Laide straddles ~~Jurassic~~ Triassic coarse sandstone and lias, overlain by drift of mainly Torridonian source. (Geological Sheet 82 1st edition is the only large-scale edition available and covers only Kinlochewe and Beinn Eighe sections).

b) Soils.

In fertility, the Moine drifts and alluvial Torridonian material are the best mineral soils available but their total area comprises a mere 15% of the potential forest area. The fines content of Lewisian-Torridonian drift is low and the general influence is towards podsol profiles with, superimposed, some accumulation of ~~raw~~ humus of infertile fibrous type. The most infertile soils are of this type where the drift is strongly compacted, full of boulders, and the raw humus less than 8" thickness; most of the early failures in Slattadale Burn area were on this soil type. Leaching is most extreme on morainic knolls at Beinn Eighe. Podsol profiles are frequently much abbreviated owing to the sparseness of the drift.

Deep/

Deep peats are of local occurrence in Slattadale and are of markedly different quality, depending upon their texture and micro-topography. Amorphous peats occur around the Barbhaig basin and adjoining slopes, surrounding Goose Loch, and only very locally elsewhere. They are usually well flushed. Deep fibrous peats occur in small 'terrace' situations with poor flushing conditions and are distinctly difficult soils with strong deficiencies in phosphate and potash.

c) Topography.

Steep slopes and cliffs make for difficult extraction at the east end of Slattadale section but the topography is generally reasonable for ploughing, roading and extraction in a W. Coast forest.

Elevations range from 50-650 ft. at Slattadale; from 300-350 ft. at Goose Loch; 100 ft. at Laide; and from 200-500 ft. at Beinn Eighe.

d) Meteorology.

The climate is oceanic over the central and western areas with some inland influence becoming evident around Kinlochewe. Total precipitation averages 75 ins. at Kinlochewe with a range of from 65 to 85 ins. and this falls off rapidly near the coast where the average is about 55 ins at Inverewe. Rainfall exceeding 2 ins. in 24 hours occurs about once annually, usually in the period October-December, but occasionally in August. Sunshine hours are low, and over 0.04 in. falls on 200 days in the year. Frosts are seasonal and are usually infrequent but night minimum temperatures can reach 20° of frost in Kinlochewe and 14° of frost at Inverewe. Gale days range from 1 to 3 in the eastern and central area but are considerably more frequent in the coastal section. Direction of gale damage is N.E. at Slattadale. Main part of the forest lies in zone B.3a Anderson-Fairbairn classification, with the coastal zone in C.2a Exposure is slight over the Forest, and only the coastal blocks at Aultbea are affected by salt-carrying winds.

e) Vegetation.

Vegetation types at time of acquisition have to be assessed against the background of an extreme burning régime. Those listed below appear to be the more stable associations which have developed in Slattadale where there has been no burning or heavy manuring for over 30 years.

- Slack peats? 4"-12"+*
- (i) Raw humus podsoles carry a mixed vegetation of Calluna, Trichorum, Molinia and Erica tetralix with a ground layer of Sphagnum spp. and Cladonia spp. The first four species show poor growth and weak flowering. Possible deforested pinewood. Freedom from the act of cultivation or burning usually leads to dominant Calluna, after an initial phase of vigour in Trichophorum and Molinia.

- Unflushed deep peats*
- (ii) Deep peats of fibrous texture are dominated by Trichophorum and Sphagnum spp., the latter highly developed into a thick layer. Calluna, Molinia and Erica Tetralix are also present in noticeable amounts but the latter two flower only weakly. No tree colonisation takes place naturally.

Drainage almost eliminates Sphagnum, while the other species have renewed vigour notably Calluna over a long period. Calluna causes serious and prolonged check to S.S. on this type.

- Flushed deep peats*
- (iii) Deep peats of amorphous texture are dominated by Molinia which flowers strongly after drainage. Calluna is sparsely present, grows into a large woody shrub but rarely causes check on this type to spruces. Alder and wet birchwood occupy or occupied this type.

Doubtful description
of Birch knolls
before burning

(iv) Morainic knolls, if unburnt, have Calluna of moderate vigour as the dominant with Cladonia spp. and unhealthy Trichophorum. Recovery after burning is very slow and Trichophorum temporarily appears as the dominant. This is a natural Pinewood site.

(v) Birchwood sites range from grass heath with moderate dominance of Holcus spp. on freely drained mineral soils to wet grass herb where there is some tendency to formation of fertile flush peat.

Sheep grazing is usually heavy on birchwoods or degraded birchwood sites.

(vi) Raised deep peats have Sphagnum and Trichophorum dominant with also an abundance of ~~Cladonia~~ spp. Plant vigour is extremely poor. No tree colonization takes place.

f) Site types.

The assessment of site in the various blocks of Slattasdale must be based closely on the drift geology, ~~and~~ microtopography, and vegetation assessment weighed cautiously against burning and grazing influence, both usually having been of extreme intensity.

The first afforestation period appears to have used the vegetation method of site assessment and this led to major errors in the selection of species for afforestation on raw humus podsoils and unflushed or fibrous peats (apart from errors in draining and manuring treatment). The general conclusion from afforestation has been that species other than pines, in particular S.S., can be used only on carefully selected sites, if at all, where the areas to be afforested lie outside permanently flushed peats of the amorphous type. This, in effect, means the restoration of the pinewood association over most of the areas; the planting of S.S. on peats of assured flushing and good texture; and the choice of H.S., D.F. Abies and larches restricted to birchwoods and deforested birchwood sites - for which S.S. is also a competitor.

The manurial factor is of primary importance on all sites except birchwoods. Afforestation and protection leads to renewed vigour in Calluna on most sites and this discourages the careless use of S.S.

A tentative classification of site types is given below, with species performance also assessed.

(i) ^{Raw humus} Raw humus podsoils require thorough cultivation with turf-planting on invariable rule. Pines - S.P., C.P. and P.C. - are the main species and Q Class III can be anticipated. Manuring is essential for all species. H.L. and J.L. grow well for the first 20 years but mineral deficiencies appear to cause a slowing-up at this stage. Vegetation suppression is better than with pines.

Spruces must never be used on this site.

The podsol may be so rocky or abbreviated as to make it unplantable.

(ii) Morainic knolls should receive similar treatment to (i) but the Q Class of pines is likely to be IV. Larches are a failure on this site.

Very rocky morainic knolls and ridges may be unplantable.

(iii) Deep peats with fibrous texture and poor uncertain flushing require deep and intensive drainage and are suitable only for P. contorta and Mountain pine. Manuring is essential. Q Class is uncertain.

S.S. checks extensively on this site. There may be some experimental use for Scots pine.

(iv) ^{Dub peats of former pasture with some flushing conditions should be checked distinguished from (iii) (usually by microtopography)} Deep peats of former pasture with some flushing conditions (usually by microtopography, not vegetation).

Thorough drainage and manuring are essential.

S.S. has been used pure and Q Class IV is possible if there is no manurial check. J.L. and P.C. have been used as nurse to S.S. quite successfully and Abies procera has also grown well on this site.

S.S. should probably be used in mixture with P.C.

(v)/



- (v) Moist birchwood sites and amorphous peats.
These are assured sites for S.S. and Q Class II can be obtained.
- (vi) Well-drained mineral birchwood sites can be planted direct with S.S., N.S., D.F., Abies species, and all larches. Some admixture of beech and sycamore is possible. Although mildly leached, these soils are of high status and should be preserved.
- (vii) Raised deep peats as described under section 2c are unplantable.



Chapter 3

b) The whole area lay within Clan Mackenzie lands, which were later subdivided.

Recent exploitation of woodland began early in the seventeenth century when several foundries consuming hardwood were set up, mainly on the north side of Loch Maree, but there also appears to have been one at Talladale. Exploitation in the pine stands began after 1610 but little further information is available.

The references for this period are mentioned in Steven & Carlisle's 'Native Pinewoods'.

No natural pine were present in any parts of ground acquired at Slattadale, Kinlochewe or Beinn Eighe with the exception of Eilean Ruairidh Mhor.

Gairloch and Gruinard Estates established a number of small plantations at various times from around the middle nineteenth century onwards and these provide useful information on the performance of D.F., J.L., C.P., and S.P. The origin of S.P. appears always to have been from natural stands, probably West Coast.

Slattadale was run as a sheep farm immediately prior to acquisition and carried 370 ewes. Birchwood still covered the eastern slopes, the slopes above Doire, and the central slopes from C.22 to C.27, a total of about 120 acres. The Slattadale Burn basin and the slopes rising from the upper R. Garbhaig were totally bare. There was an old arable area of under 60 acres. An early plantation of E.L. planted about the period 1830-1840 in the area around Compts. 13-17 and C.55 had been felled some time previous to acquisition, and had been measured as Q Class I. *Some remnants occur towards the upper limit of the present Loch Maree.*



Chapter 4

(d) Considerations affecting land management.

1. Boundaries and Fencing Liability.

a) Type of boundary.

Deer fences erected by F.C. mark the boundaries of enclosed acquisitions except where unplantable areas have been excluded or more reasonable fence lines selected.

At Kinlochewe, the fence line excludes Compt. 6 from the acquired area. At Slattadale, the 1951 survey indicates that the ring fence includes some area on Gairloch Estate and that, in fact, some of the F.C. plantations near the upper limit are on Gairloch property. Any adjustments will be made at time of Working Plan survey.

There has been a dispute of boundary by Tournais Estate, claiming an area at south end of Goose Loch, Compt. 2, which was acquired from Aultbea, enclosed and planted. Onus of proof rests on Tournais Estate at time of writing this.

b) Fencing Liabilities.

Slattadale is surrounded by 5.5 miles ring deer fence, all of it in very poor repair. In addition, there will be 1.4 miles new sheep-proof fence, enclosing Slattadale Burn valley and by end of F.Y. 61. Erection and maintenance rests on F.C. only, as regards the ring fence.

Kinlochewe is surrounded by 2.9 miles deer fence. Under the disposition, P.C. are not bound to erect or maintain fences and Estate bind themselves to have no claim for loss of sheep which may result from absence of such fencing. Hence there would appear to be no obligation on the Estate to share fence maintenance costs.

Beinn Eighe blocks have 5.1 miles deer fence boundary, of which only 0.5 miles remain to be erected around Compt. 7. F.C. has the right, but is not bound, to erect and maintain at own expense such fences as are necessary.

Aultbea blocks are fenced at sole expense to F.C., being deer-proof and rabbit proof at either party's sole expense, but repairs will become mutual. The ultimate boundary fences will be 6.4 miles, the greater part being deer fence.

Inverewe acquisition requires to be fenced or initial repaired at sole expense to F.C., repairs thereafter are at mutual expense. *length of fence will be 2.5 miles deer fence.*



Chapter 4 d) contd.

2. Restrictive Covenants, Reservations, etc. affecting Forest Management.

(i) Slattadale acquisition has a reservation that no floating of timber on Loch Maree be done in July, August or September (the fishing season) if it can be avoided. First option to Sir K. J. Mackenzie or Superiors is reserved on the sale or feu of any part of the ground, transfer to D.O.A.F.S. excepted. Erection of buildings for manufacture or housing, other than for forestry purposes or forest personnel, is not legal without written consent. Fishings in Loch Maree are reserved to Cairloch Estates. Costs of pier erection and maintenance rest solely on F.C.

(ii) Kinlochewe disposition reserves right for Kinlochewe Lodge to take and maintain a water supply from existing source in the block. (There is also a supply to Kinlochewe Hotel, which can be assumed to be covered by this reservation).

(iii) On Beinn Eighe blocks, the Nature Conservancy binds F.C. to consult the Conservancy in regard to species to be planted in the second and any subsequent rotation. (The Nature Conservancy also laid down a condition not in title that F.C. notify them of species proposed for planting each P. year in first rotation and this is done annually). Shooting rights were reserved by Nature Conservancy and there are special clauses relating to destruction of blackgame and capercaillie. Certain plots and areas in Compts. 1 to 3 are reserved by the Conservancy for experimental work on pine regeneration, but drains can be led through these except plot number 1. Nature Conservancy bye-laws are to be observed by F.C. employees.

There is the normal Home Department reservation that no trees should be planted within 50 feet of the centre line of road B.858.

(iv) On Aultbea acquisition, no rights to salmon and sea trout fishing were conveyed. There are no other reservations.

(v) A right of way through Compt. 10 Inverewe is reserved to Inverewe, and they are entitled to drive sheep along this route.

3. Easements, Servitudes and Licences.

There is nothing of importance here.

4. Public Rights of Way.

The old track from Slattadale via Doire to Poolewe runs through the forest and is a right of way used by hikers. The old road from Kinlochewe to Torridon runs through Beinn Eighe, Compts. 1 to 6 and is probably a right of way.

An old track to peat banks in Inverewe Compt. 11 may be a right of way.

5. Sporting Interests.

Kinlochewe acquisition is the only one let as a shooting.

6. Obligations of Outside Parties to F.C.

None.



Chapter 21

a. Research Branch Work.

Slattadale, despite the extensive failures, has attracted no attention from Research Branch silviculturally. In 1951, Mensuration branch set up three permanent sample plots No. 250, 251 and 252 in S.S., D.F., and N.S. respectively, in C.67 and C.68. The plot in S.S. will soon have to be abandoned owing to windblow. These plots are located on the best soil types in the Forest and are not of wide application.

Exp 1/7/53 set up 3 permanent plots C.67 as normal rigine soft.

b. Investigation by Local Staff.

A small-scale slagging trial was done in P.29 E.L., N.S. and Ab. procera and results assessed in 1931. As a result, slagging came into general use from 1932 onwards and was applied to all backward areas and beat-up.

Some trials on re-slugging were done about 1943 but recording was poor.

Ploughing trials of the failed areas were recommended in 1945 but not carried out until F.Y.50, being planted in P.51 Compts. 47-49 and 61. The plough used was D/F Outhbertson. This was assessed in 1959 and ploughing commenced in F.Y.60 on a moderate scale.

PROTECTION.

- (1) Standing Fire Plan with map (print) 6" to 1 mile.
- (2) Annual Fire Plans - inserted each year and retained as Appendices 5 (a) (b) etc.
- (3) Other Protection:
 - (a) Vermin, Deer, etc.
 - (b) Insects, etc.

Red deer are numerous on all surrounding Estates and constitute a major risk during the afforestation period. They are also present on Eilean Ruairidh Whor at certain times of year. The plantations harbour roe deer in small numbers and pine martens still inhabit the area around Slattadale.

Rabbits do not occur at Slattadale but there is a sparse coastal population in the Aultbea section.

Sheep are a constant menace in Slattadale where the road has no grids at both ends of the Block, and this is augmented by wild goats at the Doire end.

Vermin control is satisfactory except for Slattadale where the construction of 2 cattle grids on the trunk road will be imperative for future control.

Crossbills frequently cause extensive damage to the cone crops of S.B., J.L. and native S.P.

Foxes has not appeared to any significant degree but normal creosote treatment is carried out.



Record of Re-sowing and Enrichment.

- F.Y. 55. P29 area C60-63 re-drained and GMP applied.
- F.Y. 56 P23 area C3, 4, 15-16 re-drained and GMP applied.
4.5m PC & SL enrichment.
- F.Y. 57 P29 area. C69, 70 re-drained and GMP applied.
5m PC enrichment.
- F.Y. 58 P22, P31 8m PC enrichment in C3, 4, 5 above
road. Drains & GMP in C70.
- F.Y. 59 P26 C30, 31 Drains, GMP and 4m PC enrichment.
Drains only in C28 & 29.
- F.Y. 60. Drains only in C45.
- F.Y. 61 Nil.
- F.Y. 62 First sowing of P.C. in P59 Basin Edge was done
in early summer. (This had been omitted in 1959
when only SP and SS and a very few Pt had received
sowing).

Summary Sheet - Whole Forest.

Section 3 (2)

At 1-10-60

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
Shuttleworth Block	C1-78 ₁₄₅	1154			71	645.5	126.5	20	291		
Kintokum	C1-6	241				165			76		
Basin Light	C1-7	230				118	82	6	24		
Quilbes Group	C1-9	347				72	212		63		
Imvum	C10-11	1344					90		444		
		2106			71	1001	510	26	498		

Summary Sheet for Hattfield Block.

Section 3 (2)

At 1.10.60

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by P.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
	1-8	132				110	2		20		
	9-17 255	140				124.5	-		15.5		
	18-21	116				57	20		39		
	22-28	113				96	6		11		
	29-33	107				63	31		13		
	34-45	118				14	43		61		
	46-54	68				24	16		28		
	56-64	73				34	8.5		30.5		
	65-71	69				61	-		8		
	72-78	118				62	-		56		
	79	102		Ac. SP	71	-	-		31		Eden Riverside Hos
	80	15						15			P.W.H.
	Unroptd. 1							1			House - built Gardens
	Unroptd 4							4			Small site and old runway
		1176			71	645.5	126.5	20	313		
		-22							-22		Areas inside force line not belonging to F.C., adjusted for F.C. area outside Compt. and outside force.
		1154			71	645.5	126.5	20	291		

Stettadale.

Section 3 (2)

Block	Opt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
1	11	12	22	JL		1					
			23	SS		9					
			23	JL/SS		2					
			2	13	22	JL/EL		6			
	23	SS				2					
			23	SS		2	1		2		
			3	12	22	EL/JL		3			
	23	SS				6					
			23	SS		1			2		
			4	15	22	EL/NS		3			
	23	SS				8					
			23	SS		1			3		
			5	22	22	EL		1			
	22/23	SS				11					
			22/23	EL/JL/SS		5			5		
			6	22	22	EL/SS/PC		8			
23	EL				2						
		23	SS		6	1		5			
		7	21	22	EL		5				
23	EL/SS/PC				8						
		23	SS		8						
		8	15	22	EL		9				
23	SS/PC				1						
		23	SS		2			3			
			132				110	2		20	

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
1	5/1	132				2			2		
	9	14	23	JL SS/PC/NS		8 3			3		
	10	19	23	PC JL PC/NS/ SS/SP		4 1 12			2		
	11	16	23	PC PC/NS/ SS/JL		2 10					P52 area is a replant after fire in 1948.
		52		NS/SS/PC		2			2		HE line
	12	13	23	PC/NS/JL		6					P52 area is a replant after fire in 1948.
		52		NS/SS/PC		5			2		HE line
	13	11	23	JL NS		7 2			2		NS only part stocked. JL clearfelled and stored
	14	15	23	JL few over 44		15					
	15	20	23	JL SS		14 5			1		
	16	14	23	JL JL/SS/PC SS		6 2 4			2		HE line (Part planted with Ambrosia trees P60)
	17	8	23	JL JL/SS/PC /PC		1 6			1		HE line. (Planted with Christmas trees P60)
	430					2			2		
	55	10	28	3F SS		6.5 3.			.5		0.5 HE line (planted with Christmas trees P60)
		140				134.5			15.5		

Block	Cpt. No.	Area	Plantations				Forest Land		Plantable		Unplantable		Remarks
			P. Year	Species	Acqu.	by F.C.	In Hand	Let	In Hand	Let			
18	35	24	EL/SP			700.							Remnants of failed P24/P27
			60	SP		1						P60	
				PC		5						failed area	
				SS		2							
61	62	PC			group.							Plumbable ^{area}	
		SS			3						Plumbable		
19	32	24	SP/EL/DF			2							
			60	SP		1							P60 replant of P24/P27
				PC		65							failed area
				SS		32							Plumbable ^{area} is not plumbable
20	23	24	EL/NS			4							
				DF		5							
			60	SP		1							P60 replant of P24 failed area.
				PC		2							
						2							Plumbable ^{area} is not plumbable
				SS									
21	26	24	DF			6							
				NS		5							
				DF/NS/SS		3							
			60	SP		1							
						5							
				PC		5							
				SS		2							
				DF		1							Plumbable ^{area} is not plumbable
116						67	20				39		

Section 3 (2)

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by P.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
	22	13	25	SP EL SS/PC		1 8 2			2		
	23	11	25	SP EL DF SS/NS		2 3 6 faw.					
	24	12	25	DF		11			1		
	25	13	25	NS DF		1 10			2		
	26	22	25	SS DF SS/NS/DF PC/TL		4 13 2					
			28	DF/NS		1			2		
	27	16	25	SS DF EL/SS/R		6 5 1			4		
	28	26	25	SP EL DF TL/PC/ SS/NS		8 2 2 8					
			61	SP PC		4 2					
		113				96	6		11		

Section 3 (2)

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Spe- cies	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
29	24	26	MP/NS		2						
			SS		2						
			JL/PC/MP		4			2			
		61	NS/SS		8						
			SP		3	3					
			PC								
30	31	26	JL/PC/MP		10						
			SS/NS		3			4			
			SS		2						
		61	SP		1	2					
			PC		2						
		62	SP		7						
31	22	26	JL/NS/MP		16						
			PC/MP		2						
		62	SS		1	3					
32	15	26	SS/PC/MP		6						
			NS/SS/PC		4	2		3			
33	15	26	JL/SS/NS		14			1			
34	107					63	31	13			

Block	Cpt. No.	Area	Plantations				Plantable		Unplantable		Remarks
			P. Year	Species	Acqu.	by F.C.	In Hand	Let	In Hand	Let	
34	16	27	SS fue R			3	4		9		1 acre up is HE line
35	11	27	SS/SL			1	3		7		1 acre up is HE line
36	9	27	SP/SL			1	2		6		1 acre up is HE line
37	14	27	SP/SS			2	2		10		1 acre U/P is HE line
38	12	27	SP/SS			2	2		8		"
39	11	27 62	SP/SS PC			1 1	5		9		"
40	10	27 62	SS SP PC			1 1 1	5		7		Plants include some steep slope "
41	7	27 61 62	SS SP HL SL PC			fue. 1 fue. 3 2	4 1/2		3 1 (H.E) sub.		Plants include some steep slope "
42	9	27 61 62	SS SP PC SL			fue. 3 2 1	8		3		HE line unplantable
43	7	27 61	SS/SL SP PC			fue. 2 2	61		2		HE line unplantable
44	6	27 61	SS/fue SL			3 group.	3				
45	6	27 61	SS/SP HL SS			fue. 4 1	6		1		
	118					14	43		61		

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
	46	8	28	SP SS SS/PC/NS		2 2 1			2		UP includes 1 acre HE line Plantable area not ploughable
	47	8	28 29 51	SP/SS NS/PC/NS SS/MP		2 1 1		2	2		UP includes 1 acre HE line
	48	9	28/29 51	SP SS SS/PC/NS		2 1 2				3	UP includes 1 acre HE line
	49	8	28/29 51	SP/SS SS/PC		1 1			2		Plantable includes 2 acres not ploughable.
	50	8	28/29	SP/SS/NS		2		2		4	
	51	8	28/29	SP/NS		1		4		3	Plantable includes 2 acres not ploughable.
	52	8	28 29	SP NS		1 2		1		4	
	53	5	28/29	SP/NS		2				3	Negligible area plantable
	54	6						1		5	
		68				24		16		28	

Section 3 (2)

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Spe- cies	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
	56	14	29	JL		few			144		1 acre HE line
	57	7	29	JL		strip.			7		1 acre HE line. Remains old peat banks.
	58	8	29	JL/SS		2	1		5		1 acre HE line
	59	8	29	JL/SS/SS pc/mp		4	2		2		1 acre HE line.
	60	7	29	JL/SS/SS mp		4	2		1		"
	61	7	29	JL/SS/SS No pre. pc/mp		4.5	1		1		"
			51	SS		0.5					
	62	8	29	SS/pc/ No pre. A/EL		6.	1.5		0.5		Thin patches up to 0.5 HE line
	63	6	29	SS/pc/ NS/EL/ No pre.		5	1				
	64	8	29	JL/pc/SS NS		8					
		73				34	8.5		30.5		

Section 3 (2)

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
	65	8	31	SS		7			1		HE line
	66	16	29/31/32	SS/NS		13			3		"
	67	15	25	DF		2					"
			29	DF NS		5 7			1		
	68	8	31	SS		7			1		" Sand stand for Supplement to 2nd 102
	69	9	30	NS		7					"
			34	NS		1			1		
	70	8	31	SS		7			1		"
	71	5	32	NS		2					
				SS		3					
		69				61			8		

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Spe- cies	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
	72	5	28	Df TL/SS		2 2			1		
	73	27	28	Df SS.		4 Some			23		
	74	29	30	Df NS TL/SS		8 4 1			16		
	75	17	30	NS Df		2 5			10		
	76	10	30 34	Df NS NS		4 4 1			2		
	77	20	30 32	NS Df Df		4 11 1			4		
	78	10	30	NS Df		4 6					
		118				62			56		

AULTBEA. Group.

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks	
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable			
							In Hand	Let	In Hand	Let		
B CLIFF Block	1	29					29 16		13			
C GOOSE Island Block	2	26	59	PC SS		2 5						
			60	SP PC SS		5 7 7						
	3	33	59	PC SS		7 18					P59 S.S. includes a 2-acre tract of Alaskan origin S.S.	
			60	SP PC SS		1 3 1						
			61	PC		2	35					
			62	SP		1						
	OFFICE COMPT.	4	32	60	SP CP PC TL		2 21 9 3			1 HE		
				61	SP CP PC SS HL		4 2 6 1 group			3		Office area. 1 acre. HE 1 acre + minor area outside fence 2/3 acre.
		5	37					35		2		
L A I D E B L O C K		157				72	81		4			

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
							Plantable		Unplantable		
			P. Year	Spe- cies	Acqu.	by F.C.	In Hand	Let	In Hand	Let	
TOTALS	B/F	157				72	81		4		
LARGE LAND.	6	71					41		30		
	7	51					30		21		
	8	37					32		5		
	9	31					28		3		
		347				72	212		63		

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
I N V E R E W E	10	55					45		10		
	11	79	61	SP CP PC SS		7 7 10 1	45 35 5		35 19 15.		* across outside fence.
			62	SP PC CP SS		7 15 4 4					
		134					90		44		

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks		
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable				
							In Hand	Let	In Hand	Let			
1	45	59	SP		8						P59 S.S. includes 1.5 acres Alaskan forest		
			PC		14								
			SS		3								
			60	SP		4							
				PC		10							
				SS		6							
		2	33	59	SP		8						
					PC		8						
				60	SP		6						
					PC		6						
					SS		1		2				
3	48	59	SP		3								
			PC		13								
		60	SP		6								
			PC		17	2	2						
			SS		5								
			61	SP		1							
		PC			1								
		4	33					20		13			
5	30	62	SP		6	23		5					
			PC		14								
			SS		3	7							
6	31	61	SP		10	25		6					
			PC		16								
			SS		5								
7	10					10							
230						118	87	6	24				

Section 3 (2)

Block	Cpt. No.	Area	Plantations				Forest Land				Remarks
			P. Year	Species	Acqu.	by F.C.	Plantable		Unplantable		
							In Hand	Let	In Hand	Let	
K I N L O C H E W E	1	44	55	SP PC JL SS		18 2 9 11				4	
	2	42	55	SP PC JL SS DF Ts		6 3 1 3 5 1					
			56	SP PC JL		1 10 few.				12	
	3	57	56	SP PC JL		4 20 12				21	
	4	29	56	PC JL		11 18					
	5	54	57	SP PC JL		2 13 15				24	
	6	15								15	outside fence unplantable.
Totals		241				165				76	

Schedule of Plantable Land

Working Plan Area

Slattedale

Areas in acres

Property, Compartment or Sub-compartment (1)	As at 30.9.60 (2)	As at 30.9.61 (3)	As at 30.9.62 (4)	As at 30.9.63 (5)	As at 30.9. (6)	Remarks (7)
<i>Slattedale Brook</i>						
C 2	1	1	1	1		
6	1	1	1	1		
18	11	10	6	6		P62 8
19	5	5	5	5		
20	1	1	1	1		
21	3	3	3	3		
28	6	-	-			
29	14	3	3	3		P62 3
30	14	11	2	2		P62 11
31	1	1	-			Rd. abt. 200 ft. N.W.
32	2	2	2	2		" " 600.
34	4	4	6	3		P63-3
35	3	3	3	2		P63-1
36	2	2	2	1		P63-1
37	2	2	2	2		
38	2	2	2	2		
39	1	1	1	-		
40	2	2	-			
41	4	3	-			
42	8	2	-			P62 2
43	6	1	1	1		
44	3	3	3	3		
45	6	-	-			
46	1	1	1	-		P63-1
47	2	2	2	-		P63-2
48	1	1	1	1		
49	4	4	4	4		
50	2	2	4	2		P63-2
51	4	4	4	2		P63-2
52	1	1	1	-		P63-9
53			1	-		
54	1	1	6	-		
TOTAL	118	79	67	47		

Working Plan Area SIATTADAIE

Volumes in 000's h. ft. over bark
Areas in acres

* Complete as necessary

* Section

* Working Circle

* Felling Series

Species and Species Groups

Year (1)	B.H.Q.G. Classes (2)	Total		Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech	
		Volume (3)	Area (4)	Volume (5)	Area (6)	Volume (7)	Area (8)	Volume (9)	Area (10)	Volume (11)	Area (12)	Volume (13)	Area (14)	Volume (15)	Area (16)	Volume (17)	Area (18)
55	Total	14															
	2 1/4"-6"																
	6 1/4"-9"																
	Over 9"																
56	Total	19.5				6.8		10.1		2.6							
	2 1/4"-6"	9.2				3.5		4.6		1.1							
	6 1/4"-9"	10.3				3.3		5.5		1.5							
	Over 9"																
57	Total	19.0				7.8		6.3		4.9							
	2 1/4"-6"	9.0				4.4		4.1		.5							
	6 1/4"-9"	10.0				3.4		2.2		4.4							
	Over 9"																
58	Total	16.0				6.5		6.3		3.2							
	2 1/4"-6"	7.0				2.3		3.1		1.6							
	6 1/4"-9"	9.0				3.1		3.1		1.5							
	Over 9"					1.1		0.1		0.1							
59	Total	29.3				2.4		4.0		22.9							
	2 1/4"-6"	13.1				1.0		1.8		10.3							
	6 1/4"-9"	16.2				1.4		2.2		12.6							
	Over 9"																

Volumes in 000's h. ft. over bar
Areas in acres

Working Plan Area SLATTADALE.

* Complete as
necessary

* Section

* Working Circle

* Felling Series

Year (1)	B.H.Q.G. Classes (2)	Total		Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech	
		Volume (3)	Area (4)	Volume (5)	Area (6)	Volume (7)	Area (8)	Volume (9)	Area (10)	Volume (11)	Area (12)	Volume (13)	Area (14)	Volume (15)	Area (16)	Volume (17)	Area (18)
50	Total	14.8															
	2 1/2" - 6"																
	6 1/2" - 9"																
	Over 9"																
51	Total	24.0															
	2 1/2" - 6"																
	6 1/2" - 9"																
	Over 9"																
52	Total	9.5															
	2 1/2" - 6"																
	6 1/2" - 9"																
	Over 9"																
53	Total	9.4		-		.5		.5		8.4							
	2 1/2" - 6"	7.2				.4		.1		6.7							
	6 1/2" - 9"	2.2				.1		.4		1.7							
	Over 9"																
54	Total	11.1		-		1.6		.2		9.3							
	2 1/2" - 6"	7.2				.3		.2		6.7							
	6 1/2" - 9"	3.9				1.3		-		2.6							
	Over 9"																

Record of Past Yields from Thinning/Felling

Working Plan Area

SIATTADALE

Volumes in 000's h. ft. over bark

Areas in acres

* Complete as
necessary

* Section

* Working Circle

* Felling Series

F. Year (1)	B.H.Q.G. Classes (2)	Total		Species and Species Groups																Average Yield/Acre	
				Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech					
		Volume (3)	Area (4)	Volume (5)	Area (6)	Volume (7)	Area (8)	Volume (9)	Area (10)	Volume (11)	Area (12)	Volume (13)	Area (14)	Volume (15)	Area (16)	Volume (17)	Area (18)	Volume (19)	Area (20)		
1958	Total	7.241	22			.896	2	4.330	15.6	2.015	4.4							330			
	2 1/2"—6"					.471		2.869		1.469											
	6 1/2"—9"					.425		1.461		.546											
	Over 9"																				
1959	Total	27.274	53			1.321	4.25	3.832	9.75	22.121	38.7							515			
	2 1/2"—6"					.847		1.669		10.000											
	6 1/2"—9"					.474		2.064		10.289											
	Over 9"							0.099		1.832											
1960	Total	19.522	27			10.515	15.5			9.007	11.5							720			
	2 1/2"—6"					2.761				3.689											
	6 1/2"—9"					7.754				5.143											
	Over 9"									.175											
61	Total	61.7	91			19.5	32	20.5	32	21.7	27							680			
	2 1/2"—6"	29.3				9.2		6.8		13.3											
	6 1/2"—9"	26.9				7.3		11.5		8.1											
	Over 9"	5.5				3.0		2.2		.3											
62	Total	NIL																			
	2 1/2"—6"																				
	6 1/2"—9"																				
	Over 9"																				

2372, Wt. P. 69260, 15,000, 4/59, C.P. 49211, Gp. 773.

* Includes minor lots NS P30-Mun. Rd. Area

Record of Past Yields from Thinning/~~Betting~~

Working Plan Area SLATTADALE

Volumes in 000's h. ft. over bark

Areas in acres

* Complete as
necessary

* Section

* Working Circle

* Felling Series

Year (1)	B.H.Q.G. Classes (2)	Total		Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech		Average Yield per acre.	
		Volume (3)	Area (4)	Volume (5)	Area (6)	Volume (7)	Area (8)	Volume (9)	Area (10)	Volume (11)	Area (12)	Volume (13)	Area (14)	Volume (15)	Area (16)	Volume (17)	Area (18)	Volume (19)	Area (20)
1953	Total	7.269	15			.245	1	.079	-	6.945	14							485	
	2 1/2"-6"	6.462				.195				6.267									
	6 1/2"-9"	.807				.050		.079		.678									
	Over 9"																		
1954	Total	10.724	30			1.545	3	.176	3	9.003	24							360	
	2 1/2"-6"	7.166				.299		.161		6.706									
	6 1/2"-9"	3.558				1.246		.015		2.297									
	Over 9"																		
1955	Total	.213	0.5					.010	-	.203	.5								
	2 1/2"-6"	.213						.010	-	.203									
	6 1/2"-9"																		
	Over 9"																		
1956	Total	19.481	47			6.821	13	10.036	27	2.624	7							415	
	2 1/2"-6"	9.114				3.488		4.539		1.087									
	6 1/2"-9"	10.367				3.333		5.497		1.537									
	Over 9"																		
1957	Total	11.724	29			6.020	11	5.704	18									405	
	2 1/2"-6"	7.801				3.991		3.810											
	6 1/2"-9"	3.923				2.029		1.894											
	Over 9"																		

Volumes in 000's h. ft. over bark

Areas in acres

Working Plan Area SLATTADALE

* Complete as
necessary

* Section

* Working Circle

* Felling Series

F. Year (1)	B.H.Q.G. Classes (2)	Total		Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech		Other B'leaved Species	
		Volume (3)	Area (4)	Volume (5)	Area (6)	Volume (7)	Area (8)	Volume (9)	Area (10)	Volume (11)	Area (12)	Volume (13)	Area (14)	Volume (15)	Area (16)	Volume (17)	Area (18)	Volume (19)	Area (20)
1958	Total	1.666		.010		.109		.345		.902									
	2 1/2"-6"	.358		.010		.216		.21		.111									
	6 1/2"-9"	1.218				.193		.289		.736									
	Over 9"	.090						.035		.055									
1959	Total	.613				.513				.100									
	2 1/2"-6"	-																	
	6 1/2"-9"	.418				.318				.100									
	Over 9"	.195				.195													
1960	Total	2.353		.006		.425		.839		1.083									
	2 1/2"-6"	.286		.006		.036		.101		.143									
	6 1/2"-9"	1.691				.275		.648		.768									
	Over 9"	.376				.114		.090		.172									
61	Total	.425				.425													
	2 1/2"-6"	.064				.064													
	6 1/2"-9"	.223				.223													
	Over 9"	.138				.138													
62	Total	5.4				1.9		.1		3.4									
	2 1/2"-6"	4.8				1.6		.1		3.1									
	6 1/2"-9"	0.6				0.3				.3									
	Over 9"	-				-				-									

Some filling
it's but
now put them

Record of Past Yields from ~~Thinning/Felling~~ **BLOWN TIMBER.**

Volumes in 000's h. ft. over bark

Areas in acres

Working Plan Area **SLATTADALE**

* Complete as necessary

• Section

• Working Circle

• Felling Series

Year (1)	B.H.Q.G. Classes (2)	Total		Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech		Other B'leaved Species	
		Volume (3)	Area (4)	Volume (5)	Area (6)	Volume (7)	Area (8)	Volume (9)	Area (10)	Volume (11)	Area (12)	Volume (13)	Area (14)	Volume (15)	Area (16)	Volume (17)	Area (18)	Volume (19)	Area (20)
1953	Total	1.969	-			.121		.436		1.412									
	2 1/2"-6"	.555				.037		.092		.426									
	6 1/2"-9"	1.414				.084		.344		.986									
	Over 9"																		Gale damage.
1954	Total	.407				.033				.374									
	2 1/2"-6"																		
	6 1/2"-9"	.407				.033				.374									
	Over 9"																		
1955	Total	.072								.072									
	2 1/2"-6"																		
	6 1/2"-9"	.072								.072									
	Over 9"																		
1956	Total																		
	2 1/2"-6"																		
	6 1/2"-9"																		
	Over 9"																		
1957	Total	7.302				1.826		.587		4.889									
	2 1/2"-6"	1.216				.419		.284		.513									
	6 1/2"-9"	6.086				1.407		.303		4.376									
	Over 9"																		Gale Damage.

Working Plan Area

SIATTADALE

Volumes in 000's h. ft. over bark

Areas in acres

* Complete as
necessary

* Section

* Working Circle

* Felling Series

F. Year (1)	B.H.Q.G. Classes (2)	Total		Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech		Other B'leaved Species	
		Volume (3)	Area (4)	Volume (5)	Area (6)	Volume (7)	Area (8)	Volume (9)	Area (10)	Volume (11)	Area (12)	Volume (13)	Area (14)	Volume (15)	Area (16)	Volume (17)	Area (18)	Volume (19)	Area (20)
58	Total	7050	4.3			5180	3.1	1617	1.2	.253									
	2 1/2" - 6"					1572		.203		-									
	6 1/2" - 9"					2505		1378		.253									
	Over 9"					1103		.036		-									
59	Total	1.413				.542		.237		.634									
	2 1/2" - 6"	.541				.102		.131		.308									
	6 1/2" - 9"	.755				.323		.106		.326									
	Over 9"	.117				.117													
60	Total	-	-																
	2 1/2" - 6"																		
	6 1/2" - 9"																		
	Over 9"																		
61	Total	.824	1.			.824													
	2 1/2" - 6"	.198				.198													
	6 1/2" - 9"	.346				.346													
	Over 9"	.280				.280													
62	Total																		
	2 1/2" - 6"																		
	6 1/2" - 9"																		
	Over 9"																		

60

61

62

Total

2 1/2" - 6"

6 1/2" - 9"

Over 9"

Total

2 1/2" - 6"

6 1/2" - 9"

Over 9"

Total

2 1/2" - 6"

6 1/2" - 9"

Over 9"

-

-

-

-

-

-

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Working Plan Area SLATTADALE

Volumes in 000's h. ft. over bark

Areas in acres

* Complete as
necessary

* Section

* Working Circle

* Felling Series

Year (1)	B.H.Q.G. Classes (2)	Total		Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech		Other B-leaved Species	
		Volume (3)	Area (4)	Volume (5)	Area (6)	Volume (7)	Area (8)	Volume (9)	Area (10)	Volume (11)	Area (12)	Volume (13)	Area (14)	Volume (15)	Area (16)	Volume (17)	Area (18)	Volume (19)	Area (20)
53	Total	.17				.174													
	2 1/2"-6"					.174													
	6 1/2"-9"																		
	Over 9"																		
54	Total	-	-																
	2 1/2"-6"																		
	6 1/2"-9"																		
	Over 9"																		
55	Total	13.75	-																
	2 1/2"-6"																		
	6 1/2"-9"																		
	Over 9"																		
56	Total	-	-																
	2 1/2"-6"																		
	6 1/2"-9"																		
	Over 9"																		
57	Total	-	-																
	2 1/2"-6"																		
	6 1/2"-9"																		
	Over 9"																		

Road built.
Species breakdown
not recorded.

Schedule of Lettings & List of Buildings

PHOTOGRAPHY

Name of Area	Name of Tenant	Area (acres)	Date of Commence- ment	Period	Rent	Date to be resumed	Date Actually Resumed	Remarks
Site for shop (Kinlochewe Block)	Miss J. Mackay	(Quarry)			£5 per annum			
F.W.H. No. 1 <i>Old quarry</i> Forester's house	A. Grant W.D. MacPherson	15			£30:2:4d.			
B.T.H. (<i>New Bothy</i>)	-	0.5			Free			
Shootings on Kinlochewe Block	Col. W.W. Whitbread	-	1.8.53	25 years	5/- per annum			Used as bothy
Office <i>with porch</i>								Slattadale 12' x 10'
Garden Sheds - 2								" 10' x 8'
Garage-toolstore-stables	<i>(W.D. MacPherson - Hut car garage)</i>							Slattadale 100' x 18'
Bothy - Cycle shed-store								Slattadale 15' x 10
Old Bothy (<i>Kinlochewe Store</i>)								" 30' x 18'
Petrol Store								" 6' x 8'
Byre	A. Grant							Slattadale F.W.H. 1 18' x 12'
<i>Temporary stable shed school</i> Shelter & Store								<i>Slattadale F.W.H. 18' x 12'</i> Kinlochewe 15' x 10'
Office <i>with porch</i>								Aultbea 12' x 10'
<i>School school</i> <i>New garage</i>								<i>Aultbea</i> <i>Aultbea</i>



SLATTADALE

Production Notes. (Supplement to WP.13).

G.T.-10.

Period FY.54-59.

During the 6 year period to date, the Forest has yielded 94.5M H.ft. Of this, about 80M was produced from thinnings over some 180 acres; the balance resulted from windblow, road line clearing and felling for Hydro-Electric Wayleaves.

The average outturn from thinnings has been 500 H.ft./Acre. Prior to this period, thinning had been carried out over a total of 430 acres, operations commenced in 1939, and continued throughout the period to 1953. Separate volume figures are not readily available, but of this total, some 230 acres was classed as 1st thinning, the balance (200 acres) being 2nd and subsequent thinnings.

Yield plot data for the period indicates an outturn of 250-300 H.ft./Acre for 1st's and 4-500 H.ft./Acre for 2nd and subsequent thinnings, however, delays have resulted in much higher outturn/Acre over the whole programme.

Thinning intensity has been progressively stepped up, to the present level of approximately C/D grade. Present yield levels are estimated to be

<u>1st.</u>	300 H.ft./Acre	<u>2nd & Subsequent.</u>	500 H.ft./Acre.
-------------	----------------	------------------------------	-----------------

The Annual programme has been very erratic, 1940-1949 averaged some 27 acres/annum. 1950-1959 averaged some 24 acres/annum, the peak year was 1951, when some 68 acres were thinned. The years 1954/55 saw only 30 acres thinned for the two year period, but work at the time was concentrated upon providing a suitable road system. During 1959, this system has been subject to very extensive improvement.

At present, a little under 320 acres of the main forest are in the thinning stage. Of this area, almost exactly one-third is classed as being in the 1st thinning category, although parts of the area have had a heavy cleaning or light thinning sometime during the past ten years.

The present thinning cycle is planned to be four yearly, but roadwork etc., has interrupted the pattern of working. There is a slight back log of thinning to be worked off during FY.60, after which, a more regular programme should be possible. A regular cut of about 35,000 H.ft. should be possible during the period 1961-69. Thereafter, the thinning area should begin to expand gradually.

In addition to the foregoing, there are some 70 acres of acquired, natural S.P. on the island in Loch Maree. This is mature or near mature, and, is estimated to contain upwards of 200,000 H.ft. Of this, at least 100,000 H.ft. should be realisable, but so far no cutting plan has been made because of the extraction problem.

Objects of Management

To create, maintain and utilize under approved silvicultural management, woodlands, plantations and afforestable areas described as follows:-

	<u>Acres</u>
Broadleaved on a years rotation	
Broadleaved on a years rotation	
Conifers on a Timber rotation	... 1600
Conifers on a Pitwood rotation	
Coppice on a years rotation	
Woodlands of uneven age	
Total	<u>.....</u>

General Observations:-Forest Programmes & Objectives: period FY.60-64

The interim objective, until the objects of management are defined in Working Plan prescription, will be to create even-aged plantations, favouring *the better* volume producers over pines and larches where soil conditions are locally suitable. The existing plantable reserve will be mainly pine plantations.

The planting programme has been imposed at 100 acres which can be considered above the desirable level while production for roadside sales is continued. Location of the planting programme will be decided annually on the basis of labour strength and distribution. Underplanting will not be done during this period. Enrichment of severely checked S.S. and P.C. and rehabilitation will be carried out wherever man-power permits and will be concentrated in the Slattadale Burn area west of the main road.

Production during the period envisages a potential annual thinning yield of approximately 35,000 H.ft. but, in view of the underthinned condition of areas in production, this yield could probably be exceeded by 10% to 15% during this period if man-power is available. The objective in thinning will be to produce stable stands with maximum crown development on vigorous selected dominants. No felling, other than road lines, is planned for the period, but in an emergency P.23 JL could be felled.

The road programme is designed to complete the production network in FY.62 by *def* (an extension of larch wood road and) a new road to Doire.

Prescriptions:

Ground preparation will be thorough, with particular emphasis on draining and turfing. In ploughing, every ninth furrow will be missed where ploughing is in the direction of extraction. All species will be planted on turfs with the exception of freely-drained fertile mineral soils where direct planting will be employed. Manure will be applied at time of planting at the rate of 1½ cwt. GMP per acre for pines (approx. 1½ oz. per plant) and 2 cwt. GMP per acre (approx. 2½ oz. per plant) for S.S. and other species. The scale of manuring can be reduced for sites more fertile than average.

Planting/



Planting espacements will be:-

All pines	5' x 5'
S.S. & N.S.	5'6" x 5'6"
D.F.	6' x 6'
H.L. & J.L. (firebelts)	4'6" x 4'6"
H.L. & J.L. (other)	6' x 6'

In general, mixtures will not be employed but there may be uses for intimate mixture of C.P. and S.P. in coastal areas and for P.C. and S.S. on partially flushed deep peats. Few blocks are large enough to require crown firebreaks in the form of hardwoods and Laide and Slattadale Burn are the only blocks where some birch could be used effectively in this period.

Fences will require to be deer-proof in all areas but rabbit-proof only in certain situations. A determined effort must be made during the period to restore the ring fence round Slattadale and probably also to obtain grids on the County road which would terminate the constant sheep *deer* problem.

Beating-up should not be necessary except in event of damage by vermin and should follow Conservancy instruction on beating-up.

Cleaning will be delayed until it can be combined with first thinning or until the cleanings reach merchantable size and can be produced in the same zone as thinnings. In general, spruces will be favoured over larch and pines but the choice of main crop will rest upon the site type and the reverse may apply. Cleaning on poorer sites will be done cautiously to preserve good conditions on the ground surface.

Brashing will be kept up to date, if necessary by use of contractors. Pines and larches will be brashed to two-thirds intensity and spruces 75-80%. High pruning may be done in P.25 D.F. subject to Conservator's approval and specifications. Brashing will be concentrated in the thinning blocks and directed particularly to Compts. 1 to 8, 11, 26-33 and 60 to 68.

Thinning will be done on the basis of a four-year cycle with the objective laid out above. On the more fertile sites, a temporary shortening of the 4-year cycle may be necessary to reduce the stocking adequately. All areas thinnable within each Compt. must be dealt with at one time and on no account should different parts of compartments be treated at separate intervals. Production has been designed to follow blocks or zones within the Forest and these must be adhered to, the only exceptions being windblow and road line fellings which will be dealt with promptly regardless of thinning block for that year. Marketing will be changed to standing sales, if possible, in combination with Achnashellach and N. Strone.

Regard will be paid to amenity considerations at Inverewe during planting.

The Forester will be responsible for the maintenance of roads which will be kept in good order, with side drains and culverts clean.



List of Priorities

If labour should be inadequate for achievement of the prescribed programmes, the available resources will be directed to the following operations in order of priority:-

1. Ground preparation.
2. Planting.
3. Protection, including fire protection.
4. Thinning, extraction and cleaning.
5. Cone collection.
6. Enrichment and re-manuring.
7. Road maintenance.
8. All other forms of maintenance.

Fencing, thinning and extraction, brashing and possibly ground preparation will be let out on contract when local labour is inadequate for the programme.

Housing:

Slattadale Bothy went out of use in 1960 when it required major repairs to keep it habitable and the B.T.H. was converted for use as a Bothy. To meet labour requirements, a Bothy must be retained.

There is no housing for a married Assistant Forester.

Survey and Compartment Records.

Survey will be concentrated during this period on producing accurate areas of checked and partially checked species in Slattadale in order to improve the accuracy of yield forecasts. The remaining road lines in Slattadale section will be surveyed and approved.

The Forester will be responsible for maintenance of adequate Compartment records under supervision of the District Officer.

Seed Stands.

The natural Scots pine stands on Garbh Eilean (~~Gairloch~~ Estate) and Eilean Ruairidh Mhor (P.C.) are listed as 'Almost Plus' seed stands and form a major source of Conservancy collection from W. Coast natural forest.

4 acres J.L. in Compt. 13 are listed as a 'normal' seed source and S.S. in C.68 has been declared a seed source of 'Almost Plus' quality.

Heavy damage from crossbills makes collection problematical in certain years.

During the plan period, the S.S. will be manured to improve cone production. High pruning will be carried out in the S.S., J.L., and natural S.P. to permit use of tree bicycle.

THINNING SUMMARY
PROGRAMME

AREA IN ACRES

Name of Forest SLATTADALE Conservancy

Plan of
operation dated
...1.10.59...

Name of Wood or Cmpt. No.	FY 60 1st year		FY 61 2nd year		FY 62 3rd year		FY 63 4th year		FY 64 5th year		Remarks
	Area	Vol.	Area	Vol.	Area	Vol.	Area	Vol.	Area	Vol.	
C1-8	-	-	45.5	15.3	-	-	-	-	-	-	
C9-18	-	-	-	-	61.5	29.2	2.5	1.2	-	-	
C19-26	14.0	7.0	-	-	10.0	4.6	61.0	29.0	4.0	2.0	
C27-58	9.0	4.5	19.5	5.9	-	-	6.0	2.8	9.0	5.0	
C62-71	17.0	6.0	15.0	6.3	-	-	6.0	2.6	21.5	8.1	
C72-78	54.5	21.6	-	-	-	-	-	-	55.5	24.1	
	94	39.	80	27.	71	34	76.	35.	90	39	

Forestry Commission

Short/Long Term Thinning/Felling Forecast (and Long Term Forecast of Increment)

Date of
Compilation

* Directorate/Conservancy

(delete as appropriate)

* Working Plan Area

* Complete as necessary

* Section

* Working Circle

Signature

* Felling Series

Volumes in 000's h. ft. over bar

F.Y. (1)	Size Class B.H.Q.G. (2)	Grand Total (3)	Species and Species Groups							Broadleaved			Remark (14)
			Total (4)	Pines (5)	Spruces (6)	Larches (7)	D.F. (8)	Other Cnfs. (9)	Total (10)	Oaks (11)	Beech (12)	Other B'lvd. (13)	
63	Total	18			1	16	1						
	2 1/2"-6"	4			-	3	1						
	6 1/2"-9"	12			1	11	-						
	over 9"	2			-	2	-						
64	Total	12			2		10						
	2 1/2"-6"	4			-		4						
	6 1/2"-9"	7			2		5						
	over 9"	1			-		1						
65	Total	10				2	8						
	2 1/2"-6"	4				1	3						
	6 1/2"-9"	6				1	5						
	over 9"	-				-	-						
66	Total	30		2	10	5	13						
	2 1/2"-6"	10		2	2	3	3						
	6 1/2"-9"	17		-	7	2	8						
	over 9"	3		-	1	-	2						
67	Total	30			6		24						
	2 1/2"-6"	11			2		9						
	6 1/2"-9"	15			3		12						
	over 9"	4			1		3						

Have working
necessary for 14

Forestry Commission

Short/Long Term Thinning/Felling Forecast
(and Long Term Forecast of Increment)Date of
Compilation* Directorate/Conservancy
(select as appropriate)

M(S).

Signature

D.H.K.

* Working Plan Area

Slieve Donard

* Section

* Working Circle

* Felling Series

Volumes in 000's h. ft. over bark

* Complete as necessary

Species and Species Groups														
F.Y. (1)	Size Class B.H.Q.G. (2)	Grand Total (3)	Coniferous						Broadleaved				Remarks (14)	
			Total (4)	Pines (5)	Spruces (6)	Larches (7)	D.F. (8)	Other Cnfs. (9)	Total (10)	Oaks (11)	Beech (12)	Other B'lvd. (13)		
63	Total	3			1	1	2							Rodent & contiguity
	2 1/2"-6"	1			1									
	6 1/2"-9"	2			+		2							
	over 9"	-			-		-							
64	Total	2			1		1							Contiguity with
	2 1/2"-6"	-			-		-							
	6 1/2"-9"	2			1		1							
	over 9"	-			-		-							
65	Total	30			3	27	8							Regeneration felling
	2 1/2"-6"	2			-	2	2							density - larch &
	6 1/2"-9"	18			1	7	2							
	over 9"	20			2	18	-							"
66	Total	30			10	30	4							
	2 1/2"-6"	3			2	3	2							
	6 1/2"-9"	17			7	19	2							
	over 9"	18			1	18	2							
67	Total	20			8		12							Clear felling sub
	2 1/2"-6"	-			-		-							remains of 26
	6 1/2"-9"	6			2		14							
	over 9"	14			6		18							

Working
Plan Area

SLATTADALE

Section

Volumes in 000's h. ft. over

Species and Species Groups																	
Exploi- tation Type (1)	Size Class B,H,Q,G, (2)	Total		Pines		Spruces		Larches		D.F.		Other Conifers		Oaks		Beech	
		Programme (3)	Actual (4)	Programme (5)	Actual (6)	Programme (7)	Actual (8)	Programme (9)	Actual (10)	Programme (11)	Actual (12)	Programme (13)	Actual (14)	Programme (15)	Actual (16)	Programme (17)	Actual (18)
GRAND TOTALS	Total	37	63	3	-	9	20.8	16	20.5	9	21.7						
	2 1/2"-6"	27	29.6	3		7	9.5	13	6.8	4	13.3						
	6 1/2"-9"	10	27.5	-		2	7.9	3	11.5	5	8.1						
	over 9"	-	5.9	-		-	3.4	-	2.2	-	0.3						
Breakdown by Exploitation Type Dispersals only.																	
1. Standing Sales	Total																
	2 1/2"-6"																
	6 1/2"-9"																
	over 9"																
2. Sales at Stump (unconverted)	Total																
	2 1/2"-6"																
	6 1/2"-9"																
	over 9"																
3. Sales at road or riverside (unconverted)	Total	37	32.9														
	2 1/2"-6"																
	6 1/2"-9"																
	over 9"	-		-		-		-		-							
4. Sales of converted material	Total																
	2 1/2"-6"																
	6 1/2"-9"																
	over 9"																

Forestry Commission

Annual Control Summary - Gross (F. CONTRACTORS)

SLATTADALE

Working Plan area:

Operation (1)	Unit of Measurement (2)	F.Y. 61		F.Y. 62		F.Y. 63		F.Y.		F.Y. Programme (9)	Actual (10)	Programme (11)
		Programme (3)	Actual (4)	Programme (5)	Actual (6)	Programme (7)	Actual (8)					
Prep. ground - burning	acres	-	-	-	-	-	-	-	-	-	-	-
Prep. ground - ploughing	acres	115	127	80	52	45	-	-	-	-	-	-
Prep. ground - other	acres	-	-	-	-	-	-	-	-	-	-	-
Planting	acres	100	108	75	76	70	-	-	-	-	-	-
Drains, new	chains	1350	1879	1060	557	1020	-	-	-	-	-	-
Fences, new - deer	chains	55+180	29	235	119	90	-	-	-	-	-	-
Fences, new - stock	chains	-	97	-	-	-	-	-	-	-	-	-
Beating up - normal	thous. of plants	16	8m	25m	29m	23m	-	-	-	-	-	-
Beating up - Rehab ^M	"	10	NIL	-	-	-	-	-	-	-	-	-
Weeding	acres	40	23	30	98	53	-	-	-	-	-	-
Cleaning - brabbing	acres	5	28	10	10	10	-	-	-	-	-	-
Cleaning - other	acres	45	28	10	10	10	-	-	-	-	-	-
Drains maintenance	chains	500	580	600	967	600	-	-	-	-	-	-
Fences maintenance	chains	100	185	100	203	75	-	-	-	-	-	-
Roads new - Formation	miles	-	-	-	-	-	-	-	-	-	-	-
Roads new - Metalling	miles	-	-	-	-	-	-	-	-	-	-	-

Annual Control Summary

Working Plan area: SLATTADALE

[illegible]

* ~~DEFENSE~~ Conservancy

N(S)

Short/Long Term Thinning/Felling Forecast (combined)
(and Long Term Forecast of Increment)

D.B. PATTERSON, D.O.II

Date of
Compilation

* Working Plan Area

SLATTADALE

* Section

* Working Circle

* Felling Series

Volumes in 000's h. ft. over ba

Species and Species Groups														Remarks (14)
F.Y. (1)	Size Class B.H.Q.G. (2)	Grand Total (3)	Coniferous					Broadleaved						
			Total (4)	Pines (5)	Spruces (6)	Larches (7)	D.F. (8)	Other Cnfs. (9)	Total (10)	Oaks (11)	Beech (12)	Other B'lvds. (13)		
65	Total	47	47	2	17	11	17							
	2 1/2"-6"	21.5	21.5	2	8.5	4.5	6.5							
	6 1/2"-9"	22.5	22.5	-	7.5	6.	9.							
	over 9"	3.	3.	-	1.	0.5	1.5							
70	Total	50.	50.	4	18	13	16							
	2 1/2"-6"	15	15	3	7	2	3							
	6 1/2"-9"	25	25	1	9	6	9							
	over 9"	10	10	-	2	4	4							
75	Total	93	93	4	30	23	37							
	2 1/2"-6"	14	14	3	3	3	5							
	6 1/2"-9"	37	37	1	13	11	12							
	over 9"	42	42	-	14	8	20							
80	Total	87	87	6	34	19	28							
	2 1/2"-6"	10	10	3	2	3	3							
	6 1/2"-9"	28	28	3	12	7	6							
	over 9"	49	49	-	20	9	20							
	Total													
	2 1/2"-6"													
	6 1/2"-9"													
	over 9"													