History of the Overberg and southern Cape forests
(1795-2011)

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Summary of this period: Apart from purely nominal protection and conservation of a desultory kind, from the 1770's until about 1856, the forests received practically no helpful attention. The timber taken from them was extracted in an unsystematic manner by any who chose to do so. Fire also did much damage locally (Phillips, 1963).

During the first British occupation (1795-1803) Plettenberg Bay was also used as a source of wood. Johan Meeding was retained in his post as Post holder of the Plettenberg Bay VOC outpost. In 1797, B. S. Lourens (lookout) and J. H. Baum (woodcutter and labourer) worked with Meeding. The presence of only one woodcutter indicates that burgher woodcutters sold wood to the Government. The wood was transported to the Cape by British ships (Sleigh, 1993).

In March 1797, Anders Stockenstrom (the Secretary of the Swellendam Drostdy) gave an order from the British head of Government in the Cape to W. Ackerman (caretaker of the forests in “Outeniqualand”, the area around present-day George) to repair the house at the Zwart River outpost. Sergeant G. S. Fend was the Post holder from 1799 to 1828 (Sleigh, 1993).

A naval yard was built at Simon’s Town in 1798. Lord Earl Macartney adopted a policy of utilisation of timber from the forests of Plettenberg Bay for naval requirements in England and Simon’s Bay (it was intended that timber extraction should be concentrated around Plettenberg Bay simply because it could be easily shipped from there to Cape Town). This stimulated a certain degree of interest in the forests, and also the extension of a very nominal form of protection. It would seem, however, that a great deal of irregular felling did take place between 1795 and 1801 (Phillips, 1963).

In April 1800, Andrew Barnard (then Secretary to the Cape Government) gave an instruction that no timber was to be cut by any person whatsoever for any purpose out of the forests under Meeding’s charge, without a written permission from the Government. Two months later the Landdrost of Swellendam was instructed to enquire forthwith into the considerable damage that had been done by some “ill-designed” persons to the Government forests in the area of Plettenberg Bay by setting fire to the forests and burning it to the extent of 20 miles (Storrar, 2001).

In January 1801, Governor Sir George Yonge issued a Proclamation which authorised appointments of “Permanent Commissaries” with full power to superintend, direct and manage the several forests in the area of George, Knysna, Plettenberg Bay, Mossel Bay, Algoa Bay and also all other forests in the Colony. It was laid down that the powers granted to the permanent Commissaries shall not extend to the allowing any of the forests hereinafter mentioned to be cut or sold by license. The “Commissaries” authorised strict regulations regarding the punishment of all offenders against the welfare of the forests. They were authorised to select and appoint certain surveyors and inspectors, whose duty it was to protect the whole of the said forests from being cut, burnt or otherwise wantonly damaged or destroyed. The intention was sound enough. The extraction of timber was to be confined to a limited area under official control and all the remainder of the vast forest would be preserved (Phillips, 1963).

The Cape Town Gazette and African Advertiser reported the same month that the creation of a sawmill on the banks of the Keurbooms River was sanctioned by the Government (Phillips, 1963).

The Dutch occupied the Cape again in the form of the Batavian Republic from 1803-1806.
When the British withdrew in 1803, General J. W. Janssens (the first and only Governor during the brief rule of the Batavian Republic) visited the Plettenberg Bay outpost and, like the British before him and the Dutch governors before them, he came to investigate the potentially lucrative forests in the area. He set out from Cape Town in April 1803 with Captain Paravicini di Capelli, Doctor Passet, burgher Dirk Gysbert van Reenen and van Reenen’s son, Daniel, as company, guides and interpreters. The Governor and his party inspected the tiny settlement and the forests nearby the Bay from 23 April to 26 April. The whole tone of their report was calmly optimistic. They decided that a new sawmill was needed and that the best place for it would be on the farm Doukamma (north of Wittedrif). Van Reenen reported that the forests are so situated that there is a level approach to the timber with the wagons and, with the loads, a downhill return to the Bay (Storrar, 2001). Governor Janssens ordered Post holder Meeding to build a warehouse out of wood. He also recommended that Meeding keep all the buildings on the outpost (except for the woodshed) in good condition. The Governor inspected the wood, taken over from the British, and arranged for it to be taken to the Cape. He asked Meeding to cut the most beautiful Stinkwood tree as a gift from the Colony to Commissioner De Mist. When he returns to the Netherlands, De Mist would make "fraaie meubelen", which could trigger interest in Cape wood and lead to orders from the Netherlands. Meeding also had to prepare a block of each type of wood that De Mist could take along to make an inlaid table (Sleigh, 1993).

Commissioner-General J. De Mist visited Plettenberg Bay in December the same year. The reason for his visit was to inspect the outpost and to estimate the economic possibilities of the Bay. Apparently the Bay was not a suitable port because it was exposed to the south-easterly winds (Hulbert, 1817). The ships had to be anchored far from the beach, and the wood had to be dragged on floats behind rowing boats. The surf was heavy, the landing site was difficult and dangerous, the drinking water was scarce and the wind was either too strong or completely absent. The forest was about fifteen minutes from the outpost, in a northern direction. The Government’s carpenter’s was building a new woodshed (Sleigh, 1993). De Mist asked Meeding to collect the skeletons, heads and skins of all four-legged animals and to send it to the Cape, from which it will be shipped to the Netherlands. The Cape Government would then compensate him on a fixed amount, from 20 Rijksdaalders for the head of an elephant or a rhino, to 1 Rijksdaalder 4 Stuivers for a baboon (Sleigh, 1993).

The Batavian Republic was not unmindful of forest conservation. Because of the extensive removal of timber in the forests of George by 1805, the Landdrost (Resident) at George was clearly instructed in 1805 to preserve and extend the forests by means of tree-planting. But the annexation of the Cape by Great Britain the following year put an end to the Republic’s good intentions (Phillips, 1963).

In 1806, when the British returned to the Cape, Johan Meeding was formally re-appointed to his post at Plettenberg Bay but was now designated Superintendent, not Post holder. He was informed that the Commander-in-Chief was prepared to honour the contract entered into by the Dutch, that he was to order the several contractors to continue preparing their timber for sale as before, and that he was to inform the Governor’s office as soon as it should be ready so that a ship could be dispatched for it (Storrar, 2001).

By May 1809, 22 years after his appointment, Meeding had decided that he would like to resign and asked the Governor if he might have a pension. The Governor rejected Meeding’s request and he continued in his post another four years, arranging with the woodcutters for a supply of timber “on the most reasonable terms and with the utmost expedition”, then arranging storage for it until a vessel could be despatched from the Cape to receive it (Storrar, 2001).

Lt.-Col. Richard Collins was dispatched to tour and report on the Colony in 1809. On his visit to the Knysna region, he reported that the country was almost covered in forest for about 12 miles east of the Keurbooms River, and that excellent timber may be found, especially between the Shipwood River (Groot River at Nature’s Valley) and Bloukrans River. According to Collins, a more favourable opinion
about the forests seemed to be in existence, but their price was unreasonably high. He said that it would not be worth the inconvenience to make any alteration in the mode of procuring the small quantity of timber that was brought from Plettenberg Bay during that time, but should circumstances require for timber to be exported from the Cape, he was convinced that the Government should be able to take the matter into their own hands (Phillips, 1963).

After the British occupied the Cape for the second time (in 1806) it was decided that the Swellendam magistracy was too large and needed to be sub-divided. George was chosen because of the availability of good water. In 1811 George was declared a separate district and Adriaan Geysbertus van Kervel was appointed the first Landrost (magistrate). The town was proclaimed by the Earl of Caledon, governor of the Cape Colony on St George's Day, 23 April 1811, and named after the reigning British monarch, King George III. The Zwart River outpost became the chief administrative centre and the town was established around it (ShowMe, n.d.; South African History Online, 2011). The establishment of the town of George resulted in renewed and increasing demands for timber.

Naval interest in the forests was revived in 1811, and Captain Jones R.N of the Royal Navy was assigned in October that same year to report on the forests in the vicinity of Plettenberg Bay, and the possibilities of the forests as sources of naval timber. He spent 12 months in the area to draw up a detailed report. His report was the first authoritative document on the forests and rather depressing reading it must have made for the authorities after all the high hopes of a few years previously (Storrar, 2001; Phillips, 1963). Here is a summary of his report (dated 1 November 1812):

- The consensus was that good timber was scarce and that the forests were not as extensive as has been reported. Meeding said that the forests were between 300 and 400 miles in length, which was not true. Captain Jones found that they commence at some distance on this side of the Gouritz River, and extend eastwards to the Erate, or first river, situated directly under Pic Formosa, or the Grenadier’s Cap, in the Tsitsikamma range, about 120 miles in a straight line. They are confined between a chain of mountains parallel to the sea, and distant from it in a mean, between 8 and 9 miles. Between the Gouritz and Knysna Rivers they are generally no more than a belt at the foot of the mountains, from half a mile to a mile in breadth, and very large tracts of naked land often interpose. In some parts there are patches between the mountains and the sea, and along every river they continue for a small breadth on either side to the sea, which, as the timber approaches it, becomes less. They are very inconsiderable, either in extent or size of the timber, till near the Kaayman’s River in “Outeniqualand”, between which and the Knysna River in Plettenberg Bay district nature has placed insurmountable barriers to the removal of heavy timber (Storrar, 2001).
- The report contains a description of the kloofs, deep ravines and precipitous river banks which impede the removal of trees from the forests by floating them downstream, and particularly the difficulty of transporting them to Plettenberg Bay, to which it had to come for shipping out. The rivers in this area, far from being beneficial to the removal of timber, form the greatest impediments, because of the steepness of their banks and the ruggedness of their channels. They are nothing but torrents of water, the mouths of which are blocked with bars of shifting quicksands (the Keurbooms River is the exception). Stinkwood, which will not float because of its weight, is the most troublesome of all to transport (timber cut up near the Keurbooms and Bitou Rivers was floated down to the lagoon at their confluence near the mouths, which poured into the sea) (Storrar, 2001).
- In addition to all these disadvantages, reports Captain Jones, the anchorage at Plettenberg Bay is not considered safe and the Knysna lake, which would be a more secure place for ships to load and unload, is out of the question because of the hidden bar between the Heads, which makes the passage in and out impracticable (Storrar, 2001).
- From the Bay the nearest point to the forests was 10 to 12 miles. East of the Keurbooms River there is a forest at the foot of the mountains about a half to three-quarters of a mile (1, 2 km) broad. Here there are still some tall, good trees (Storrar, 2001).
- In the vicinity of Plettenberg Bay itself, however, Stinkwood has been relentlessly cut out for the past 25 years, and to a great extent much of that which remains is either decayed, or would not suit the purposes then desired. Very thick planks and of great parallel breath were required by the Batavian
Government, and in order to obtain the planks, the very best trees were sought after and felled (Phillips, 1963).

- No formal system has even been put in place in order to control woodcutting. Woodcutters pitched up at any place they pleased and commenced with the cutting of trees. The whole extent of the forest in the neighborhood of Plettenberg Bay has been at once made use of, and the consequence is that good timber is getting scarce. A system must be put in place in order to prevent the overuse of the timber resource. To a casual observer there appears to be a great number of trees in every direction, but experienced woodcutters will pass them by as only trees with good and useable timber are felled and used (Phillips, 1963).

- The fall of one large tree in the forest causes much destruction to neighboring trees, and the remaining timber (which is not used) prevents young growth (succession) (Phillips, 1963).

From the mention made by Captain Jones that no formal system has ever been put in place regarding the cutting of timber, it can be concluded that the same system of unsupervised, uncontrolled, reckless “Jardinage” in its worst form took place in the forests of George and Knysna until 1874; and to those of the Tsitsikamma until the introduction Captain Harison’s improved method in 1866 (Phillips, 1963).

Governor Sir John Cradock’s proclamation of 20 October, 1811, stated that the forest track between the Knysna and the Keurboom Rivers will be reserved for use by the Government only. Forests immediately to the east and west of George were sacrificed to uncontrolled public use in an attempt to ease the pressure on the Knysna forests. Another consideration was the deep ravines to the east of George, which made the transport of timber from the Knysna forests very difficult. The proclamation was also aimed at the termination of the present wasteful practices and at giving time for the almost exhausted tract of forest in the area of Plettenberg Bay to recover. Magistrates were empowered to proceed according to law against any persons who may be found encroaching within the limits of the above mentioned forest tract (Phillips, 1963).

The persistence of George Rex at Knysna persuaded the authorities that the great natural barrier between the Heads could be overcome. From 1817, when the Podargus triumphantly broached the passage between the heads, the emphasis of timber and shipping largely shifted from Plettenberg Bay to Knysna (Storrar, 2001). From this time onwards Plettenberg Bay dwindled in importance, because the vast forests pressed closer to Knysna and because of the greater ease with which ships could be loaded from a jetty there. Shipping continued, however, to come and go at the Bay, often to avoid the hazardous bar at the Knysna Heads when weather conditions were unfavourable. The felling of timber too, although it diminished, continued to furnish some sort of livelihood for men at the Bay for many years to come (Storrar, 2001).

The felling operations remained comparatively well regulated while under the control of the naval authorities (Royal Navy). There is no record of how things were managed during the era of the Admiralty’s control, but judging from what had occurred before and what took place after, it may be concluded that “jardinage” was possibly less reckless (as the practice was controlled to a certain extent). Nominal protection and regulated exploitation by the Admiralty continued until 1820 (Phillips, 1963).

In 1817 Sir Jahleel Brenton (Commissioner for the Admiralty) visited Knysna, and was so impressed with the possibilities of obtaining timber for the Royal Navy that he did an experiment. Woodcutters needed to fell and convert a quantity of timber, which was brought to Simon’s Bay by the brig Emu. The result was apparently encouraging because thereafter shipments of timber left Knysna for the naval arsenal in Simon’s Town, and on several occasions for dockyards in England. Experimental shipbuilding was tried by Brenton, but it proved to be a failure. Before long, it transpired that the timber sent to the English dockyards was found less serviceable than Oak and consequently it was not in demand (despite this the coasting trade in wagon wood and planks increased with Cape Town) (Phillips, 1963).
Wastage and maltreatment of the forests persisted until 1818, however, in February that year, the Colonial Secretary, Colonel Bird, drew the attention of the Landdrost of George (A. G. von Kurvel) to severe irregularities. Here is a summary of an abstract from his letter:

Bird highlighted the importance of preserving the forests. He said that regulations should be put in place which would prevent the waste of felling timber, and prevent the public from having timber supplied to them cut at improper times. Bird said it is essential that the Stinkwood trees in the forests adjacent to Knysna should only be used by the Government, and that no other individuals should be granted permission to cut them. He proposed that when officers of the Royal Navy have contracts with woodcutters for any quantity of Stinkwood, it should be necessary for the woodcutters to submit the agreement (contract) to the Landdrost. Woodcutters were previously granted permission to cut any tree, particularly in the forests of Leeuwenbosch (the name of the original loan farm in the area of Rheenendal) and Springfield, or in any of the other forests adjacent to Knysna (Phillips, 1963).

In 1820, the English dockyards reported unfavourably on the Knysna timbers, and Admiralty control ended that same year. For a time afterwards, the naval requirements of the arsenal at Simon’s Bay continued to be satisfied by the Knysna forests until 1825 (Phillips, 1963).

When naval control ended, the Cape Government abandoned the monopoly of the timber trade. The forests were opened at a fee to licensed woodcutters which was controlled by Justices of Peace in the earlier years and Civil Commissioners later as a part-time responsibility. This led to a period of weakened control of the exploitation of the Knysna forests by woodcutters who were totally dependent on the forests for a livelihood. It amounted to a laissez-faire policy, for these officials lacked the necessary training and dedication for this task (Phillips, 1963).

The carelessness that characterises the period from 1826-1846 is pointed out by Mr. John Rex (son of George Rex) on 5 April 1841. Regarding the alienation of forest, he wrote that the original survey and grants for the portioning-off of farms and allotments took place shortly before Knysna was discovered navigable (1817). The Government did not take the forests into account whilst the survey took place, and this meant that the margins of Government forests were in several instances ‘measured in’ as part of the farms and allotments. This circumstance was chiefly responsible for the minimal revenue that entered the public coffers (treasury), despite the exploitation the forests suffered annually. Mr. Rex also noted that of the estimated total population of the region (some 1000) the majority were woodcutters entirely dependent on the forests. The woodcutters felled timber chiefly in the Government forests which they either delivered to Knysna or Plettenberg Bay for shipment to Cape Town and Fort Beaufort, or transported it with wagons to Graaff-Reinet, Beaufort, Somerset, etc. (Phillips, 1963).

A reference to the condition of the timber trade about 1825-1830 exists in a memorial presented to parliament in 1855 by George W. Dutton and three others, petitioning the re-opening of the George forests (which until 1858 included the Knysna forests). In this memorial Captain Sewell of Plettenberg Bay drew attention to the vandalism that was prevalent in the treatment of the Crown Forests near Harkerville and Kaffirkop, but this warning apparently had little effect (Phillips, 1963).

Dutch farmers started leaving the Cape Colony from 1836 to escape British rule during the Great Trek. The demands for wagon timber greatly increased as a result (Van der Merwe, 2002).

During the 1840’s exploitation in the uncared-for forests of Knysna, Tsitsikamma (east of Storms River) and George took a greater toll than ever before. It appears that little or no supervision over the Crown forests of the Colony was exercised by the government during this time. And until 1820 almost no revenue was obtained from the forests, more expenses occurred in connection with them. By 1847 the
acts of irregularity had increased to such an extent, especially near George, that Government action was demanded by indignant members of the public in Cape Town (Phillips, 1963).

The subject was taken up by Mr. J. Montagu, then Colonial Secretary. He gave serious attention to the condition of the Crown forests, and the way that they were managed. In October 1846 several forest lots were up for sale in the then District of George (which until 1858 included Knysna), but not all the lots were sold (Brown, 1887). Then, in May 1847, another Government notice was issued. The Government, thinking that private ownership would allow for better control, surveyed and divided the whole of the forests in George and Knysna into lots and offered these lots for sale by public auction. A list of 25 forest lots, varying from 300-700 morgen in area, was appended (the upset prices varied from 5s to 15s per acre). All Crown Forests were declared closed, and no felling licenses were issued anymore. To ensure their protection, John Kentell Haswell was appointed as Conservator of Forests, and assisted by four forest rangers, who were tasked with the protection of the Crown Forests in George and Knysna. The sales of these forest lots were slow and the selling of them did not have the effect which was hoped for by the Government, owners of forest lots continued to over exploit the forests (Phillips, 1963).

There is little on record regarding the period 1847-1855. By December 1853, 158 lots of forest land had been surveyed in the forests of George, and only nine lots were sold. At Knysna the alienations were few, while of the 85 lots surveyed for sale at Tsitsikamma only five were sold in 1855 (Phillips, 1963).

Fortunately, before many lots had been sold, the Colony was granted Representative Government by Great Britain in 1853, with the first Cape Parliament elected the following year (Western Cape Provincial Parliament, n.d.; Evans, Grimshaw, Philips, & Swain, 2003). In 1855 the Hon. Major Hope was appointed as a special Commissioner to visit some of the forests. He was unable to do so, but he consulted with the Civil Commissioner of the George District, and with J. Haswell, the Conservator of the Crown forests in that district in December 1855 (Phillips, 1963).

1856-1874

Summary of this period: From 1856 to 1874 the treatment of the forests (although considerably better than that from the 1770’s to 1856) was unsystematic and detrimental to their welfare. Fire was no more controlled than during the earlier period (Phillips, 1963).

As a result of Hon. Major Hope’s discussion with the Civil Commissioner and J. Haswell, he proposed a series of regulations, which were sanctioned by the Governor, and published in the Government Gazette on 5th April, 1856. The regulations stipulated that the selling of forest lots should be stopped, and that the Crown Forests should be re-opened (but under strict controls). The Crown Forests were opened for exploitation again in 1856, and put under the control of the Conservator of Forests who, assisted by his four forest rangers, was now authorised to issue felling licenses. They were also tasked with the supervision and protection of the Crown forests of George and Knysna. The Conservator was to account for all license fees paid to the Civil Commissioner (Phillips, 1963).

A second Conservator of Forests was appointed at Witte Els-Bosch (Tsitsikamma) in 1856. He was a retired Army officer, Captain Christopher Harison, a man with no forestry training, but with remarkable aptitude for his new career. He told the government that these forests needed to be preserved and protected for the people of South Africa. According to him exploitation in the forest was common in eastern Tsitsikamma (from the Storms River eastward) before his appointment as Conservator (Phillips, 1963).

Knysna was up until this time a Field-cornetcy of the District of Plettenberg Bay in the Magisterial Division of George, but in 1858 Knysna was declared a separate Magisterial Division; bounded in the
west by the Swart River; the east by the boundaries of the Division of Humansdorp, north by the Outeniqua Mountains and south by the Indian Ocean (The Heritage Portal, 2015).

The Forest and Herbage Notice of 1859 strengthened the power of the Forestry Staff. It provided legal protection of forests against irregular fire damage. Although the Act also regulated the illegal cutting of timber, it was poorly enforced. The Notice remained in force until 1883 (Phillips, 1963).

Normally the conclusion to be drawn from these facts would be that at least the forests had entered upon a new era of better protection and of controlled exploitation in accordance with a definite system. Unfortunately this was not the case, as is shown later. Licenses certainly were issued, some revenue did enter the public chest, some supervision of the forests was provided, but little was accomplished toward improving the methods of working the forests. “Jardinage” continued, to the harm of much of the forest estate (Phillips, 1963).

Until about 1860, fellings were nominally controlled as to place, but in reality were allowed anywhere and everywhere (Phillips, 1963).

The first Colonial Botanist, Dr. Pappe, having explored the forests of Knysna, Tsitsikamma and Kaffraria (southeast part of what is today the Eastern Cape) in 1861 wrote the following: “Among the most common and striking instances of injury done to the woods.....may be ranked the wanton and indiscriminate felling of trees, at all seasons, and the carelessness with which useful and sound cut timber is frequently left to rot in the forests.” (Phillips, 1963).

Mr. John Blake, Civil Commissioner and Conservator of the Knysna forests, reported in 1864 that he was painfully struck with the waste of timber he saw there. He said that there were hundreds, if not thousands of pounds worth of timber rotting on the ground. The Conservator of the George forests advocated the sale of the forests as their sole salvation from destruction (Phillips,1963). Because of pressure and complaints from existing private owners and woodcutters, sections of forest were again sold to private owners from the 1860’s onward.

Christopher Harison introduced a modification of the French ‘Tire et Aire’ method in the Tsitsikamma forests in 1866 according to which a definite area is harvested at a specific time. The New Forest (east of the Bloukrans River) had been the scene of Harison’s first application of his own interpretation of the “Section System” in practice. It was practically clear felling, equal patches (about 1000 yards square) being felled annually in the order in which they followed each other on the ground so that all trees without distinction were felled at the same age. When one patch was devoid of full-grown timber (worked out) it was closed and felling moved to the next patch. An entire forest was treated as a single working circle. It seems that rotations of 80 years were envisaged. It must be noted that his system was in accordance with the Regulations issued in 1856 (Phillips, 1963).

Harrison’s application of the modified French “Section System” attracted the interest and attention of Dr. White. White suggested in 1866 (when a motion was put before the House to approach the Governor to appoint a Commission to acquire about the condition of the forests) that the same system used by Harison in the Tsitsikamma forests should be used in the George and Knysna forests. The forests should be divided into sections, and only one of these should be allowed to be open for felling yearly. The sections should be harvested by woodcutters (with felling licenses) on a rotational basis to ensure sustained timber yields. Once a section is harvested (worked out) it should be closed and given time to rest and rehabilitate for the same number of years as there are sections (Phillips, 1963).
The Governor appointed Thomas Bain and Christopher Harison as Commissioners in 1867 to acquire about the condition and management of the forests (Phillips, 1963).

Christopher Harison and Thomas Bain submitted their interesting informative report in May, 1868. They found that the conditions of control in the Conservancies of Knysna and George were appalling and that the forests were suffering from many abuses. Their recommendations were:

1. The forests of George, Knysna and Tsitsikamma should not be sold;
2. Captain Harison’s “Section System” (carried out by him in the Tsitsikamma) should be applied in Knysna and George. One Conservator of the three divisions, with Rangers under him in each, should be appointed with an appropriate salary;
3. Locations of villages for the woodcutters squatting in the forests should be laid out at the Poort (Harkerville), Krantzbosch (Kransbos), Yzernek (Ysternek), the western bank of Hoogekraal River (Hoekraal River) and at Fourie River (Sanddrift River); and
4. the completion of a road from George to Humansdorp (Brown, 1887).

Unfortunately this advice was ignored until 1874, when much of it was put into place.

The “Section System” of Harison was authorised for trial in the forests of George and Knysna in 1868 by Dr. White (Phillips, 1963).

Harrison had a few concerns regarding his “Section System”, and explained his obviously correct criticism of the system in 1868. He indicated that under the current regulations, there was a high degree of waste under his “Section System”. It was argued that this system would produce better results than that of “Jardinage”, such as less irregular fellings and less wastage of timber, but Harrison’s experience proved this to be incorrect.

His experience was a forerunner of what Forest Officers of a later day found so profoundly difficult: the disposal of many less-valuable species and of poor stems of the best species. Harrison complained that the wider inspection of the worked areas was prevented, and it contributed to the waste of timber.

The main defect of the “Section System” was that it neglected all consideration of the varying requirements of different tree species (Phillips, 1963).

The planning of the “Passes Road”, which was meant to connect the towns of George and Knysna, started in 1868.

Disaster struck Outeniqualand early in February 1869. Bush fires had started all over the area during several weeks of exceptionally hot weather. On the ninth of February a hot Bergwind from the north swept the fires through the mountains, gorges and lower coastal plateau (Van der Merwe, 2002). From Mossel Bay in the west to Humansdorp in the east the country was ablaze.

One branch of the fire swept down a gorge and raced through the hills towards Knysna. Then, by a miracle, the wind changed and saved the town from certain destruction. The rural people were less fortunate. In the Humansdorp district alone 27 people died and many homes were razed to the ground. The Barringtons of Portland Manor and the Darnells of Westford escaped with their lives, but lost everything they owned. People took refuge in dams and rivers, covering themselves with blankets against the falling cinders (Van der Merwe, 2002).

The fire failed to penetrate the belt of main forests along the upper coastal plateau, for fire seldom penetrates deep into moist forest (only the margins/edges of the main forests were burned). Small patches of mountain forests, forests along rivers, forested valleys and dry coastal forest (scrub forest) were, however, destroyed. Soon after the fire there was strong agitation for the sale of Crown forests by
individuals who greatly exaggerated the damage. The fire had quite an opposite effect on the Cape Government. Shaken by the events, the Government launched an investigation, which would lead to strengthened control over the forests from 1874 onward (Van der Merwe, 2002).

As an outcome of the Report of the 1868 Commission and of Harison’s correspondence with the Colonial Secretary, a Government Notice was released in 1871 stipulating that there should be measurement as soon as a tree is felled (this ensured the presence of Rangers) and that the wastage of timber should be stopped. The regulations stipulated in the Notice achieved their purpose in the Tsitsikamma, but the same did not hold at either George or in Knysna. Waste and destruction continued in these forests until 1874. It is interesting to note that these forests were open all year from 1856 until 1868. Harrison, supported by the 1868 Commission, succeeded in obtaining authority to close the forests to felling on the 31st August of each year from 1868 (Phillips, 1963).

Even in 1872 the western Tsitsikamma between the Salt River (Soutrivier) and the Storms River was relatively unoccupied. The reason for this was that the extraction of timber was very difficult, and very expensive on oxen/wagons due to the huge river gorges (Phillips, 1963).

1874-1881

Summary of this period: The year 1874 saw some improvement, which was continued up to the introduction of de Vasselot’s “Section System” of 1882. Harison, from 1874-1881, had tried to work the forests on a simple form of sectioning but – apart from the Tsitsikamma where he personally had commenced operations of this kind – the fellings were more concentrated by this practice and hence more harm was done locally. Fire continued to damage the margins of the forests (Phillips, 1963).

1874 saw the amalgamation of the three Conservancies of George, Knysna and Tsitsikamma under Conservator Captain Harison, resident at Knysna, supported by a strengthened staff of Mounted and Station Rangers. Under centralised control vested in an enthusiastic Conservator, supported by some trustworthy, better-salaried, subordinate officers, forest management greatly improved. The clauses of regulations pertaining to felling licenses were carried out, resulting in more satisfactory control of the woodcutters, as well as more adequate protection of the forests against theft, fire and mistreatment. Unfortunately, the maltreatment of the forests continued. Public pressure and the increased Government intervention for timber to open up transport and communication demanded by the Millwood gold rush during the 1870’s frustrated the efforts of the foresters, but on the whole a better era had dawned. Gone was the ineffectual control by the little-interested Civil Commissioners. The system of management applied was, in essence, that form of the “Section System” which Harison had introduced in 1866 at the Tsitsikamma and which had been followed in name only in the George and Knysna forests from 1868. The trial authorised by Dr. White never came to be, although the Conservator of George in 1871 did attribute the increase in revenue from timber in some degree to the introduction of the system of Harrison (Phillips, 1963).

Soon after the newly-appointed Conservator of the three divisions assumed office in Knysna (1874), applications were made to the Commissioner of Crown Lands and Public Works for the sale of forest lots in the Conservancy (despite recommendations made in 1868). The Government requested a report from Harison, regarding the advisability or otherwise of sale. Clearly this was strongly indicative of the unstable foundation of the revised policy. The idea of ready revenue for the public coffers (treasury) appears to have impressed the authorities at the time (Phillips, 1963).

On reply to the Colonial Secretary’s question, Harison pointed out that the sale of forests at this time was especially undesirable. He said that the high price of timber rendered forest property one of the best
investments of the day, and that speculators were straining every nerve to secure vacant lots. Regarding Knysna, Harison said that the Knysna forests would be sacrificed if they were sold as applied for. For instance, some lots sold a few years ago in the magnificent tract of forest opened up by the main road to the interior, for a few hundred pounds, are now worth thousands. He said that if the Government wanted to get rid of all their forests, they must be resurveyed and advertised for sale both in England and the Colony. But, if on the other hand, the Government decided to retain the forests and wanted to restore and improve them, the forests needed to be protected, and private rights should not be allowed to obstruct any scheme for the public good. These remarks did not apply to George where the forests to the west of the Touw River were cut out and nearly destroyed by fires. According to Harison these forests might be disposed of. Harison imagined that, should the Government decide to restore the more valuable forests, the work of restoration would be confined to Knysna and Tsitsikamma, and should not be done on a too extended scale, and not to embrace all the detached kloofs along the mountain ranges (as they are certainly not worth the expenditure of £215 a year necessary for their protection) (Phillips, 1963).

The Conservator (Harison) wrote to H. Newdigate, Esq., of “Forest Hall” in May 1874 requesting his assistance in preventing undue killing of game in the vicinity of his farm. Harison wrote that there can be no objection regards to fishing, but the Government objects to the wanton killing of buffalo and elephants (Phillips, 1963).

By July 1874 the Government made no reply regarding their decision about the sale of forests (Phillips, 1963).

A committee was appointed by the Cape House of Assembly in August 1874 to enquire into the situation of the forests. The members appeared to have been concerned about the Government’s financial loss regarding the conservation of the forests, and were also displeased with the waste of timber, despite the expensive forestry staff appointed to control the fellings (Phillips, 1963).

One suggestion put forth was that the forest should be sold in small lots to poor men, and a price per acre was proposed, but Harison pointed out that the proposed price for an acre of virgin forest was too low. Harison defended the expenditure on conservation by stating that the loss was comparative only. What was expected on the improved supervision was repaid by the preservation of timber to the country, and that the waste spoken of must have occurred under the “old system”. He said that, under the present system, waste was reduced to a minimum (Phillips, 1963).

The policy of “fell then sell” (clearing forests of valuable timber and selling them) was clearly favoured by the authorities, to whom the forests presented nothing but continuous trouble. The desire to sell the forests was increasing more and more, and it is evident from the Conservator’s (Harison) letter of 4 December 1874 to the Commissioner of Crown Lands and Public Works. Here is a summary of the letter: Regarding the wishes of the Government with respect to the ‘worked-out’ Crown Forests, the Surveyor-General and Harison recommended the sale of the whole of the George forests. Another suggestion by Harison was to keep the George forests closed, except for telegraph poles. In December 1874, the mounted Ranger-in-Charge gave a definite instruction to sell the George forests. By January 1875, the sale of “worked-out” forest had been extended to the forests of this class (worked-out) in Knysna. Thereafter Harison wrote a letter to the Surveyor-General and said that there were no re-survey of the Knysna forest lots made, which meant that there were no boundaries, and this will bring endless disputes between owners. He begged the Surveyor-General to mention this issue to the Government (Phillips, 1963).

In February 1875, Harison advised the Civil Commissioner of Knysna to not approve all applications for the hunting of buffaloes. Harison told him that the buffaloes were numerous, but they were not destructive to property and an annoyance to the public. Their skins were, however, valuable and that was
the reason for the repeated desire to obtain specimens. He said that it must be kept in mind that when a permit is given for one buffalo it generally entails the destruction of many more. Harison said that the number of buffalos would justify the annual killing of a few, and to meet the wishes of the sporting public he suggested a heavy license fee. There was suggested that licenses of £5 be issued to shoot one buffalo, and £5 more for each specimen unavoidably killed in excess of the license up to three. If the total exceeded four specimens, a license fee of £10 per head was suggested. Harison said that this method would prevent their wholesale destruction for the sake of their skins, whilst the true sportsman would have a fine field open to him (Phillips, 1963).

Unfortunately, without a sound protective policy which could have prevented the destruction of these animals, the last buffalo was killed at Bloukrans River in 1883 (Phillips, 1963).

Harison, in his first annual report for the “united forests”, once again made a strong appeal for the forests under his control. Here is a summary of the report:

Harison said that the present method of dealing with the forests is very unsatisfactory. They were cleared of valuable timber and then sold, and he mentioned that there was no provision for the future. He said that the Conservator’s efforts are only for the benefit of speculators who demand, and remove, thousands of young Yellowwood trees which should have been preserved. Harison said that this reckless system will leave the area without trees in a few years. He said that forests in the hands of an intelligent man will be taken care of, but such is rare, and judging from the fate of lots sold in the Tsitsikamma and some in Knysna, the forest will soon make way for the “mealie” garden. Harison urged the Government to decide on some sort of system with respect to the forests. He also suggested that some forest portions should be sold, but portions that are suitable for restoring and improving should be retained as a Government forest (Phillips, 1963).

Encroachment upon Government forest land was always taking place, and if it was not for the efforts of Harison and his rangers more forests could have been lost by the Government. Harison and his rangers halted encroachments and made examples out of wrongdoers, this tended to keep the evil practice in check. Unfortunately the Government acknowledged on several occasions prescriptive rights of certain private owners, and by this means lost several thousand acres of valuable timber land (Phillips, 1963).

In August, 1875, a new series of regulations was approved by the Government. Many of Harison’s suggestions are included in these regulations. The new regulations were almost the same as the regulations issued in 1856, but this time it ensured the protection of the forests (by providing the forest officers with a certain degree of legal power) and prevented the waste of timber. The regulations also stipulated that the Crown Forests shall be open to the public throughout the whole of each year, provided that licenses shall be issued to fell only the description of timber, which are known by the officers in charge of the forests to be in season at the time when applied for, and no other (Phillips, 1963).

Shortly after the regulations of 1875 had come into force, the Commissioner of Crown Lands and Public Works pointed out to Harison in a letter the desirability of planting and propagating trees and enquired what could be done in the direction of Knysna. Harison replied by saying that he supports the idea, but that he can do nothing without funds. He also stated that the continued selling of the forests to private owners will leave little room for forest extension (Phillips, 1963)

Evidence that woodcutters as far back as 1875 were in the habit of petitioning Government for consideration is set forth by a record “that a petition from the woodcutters residing east of the Keurbooms River had been presented to Parliament by Mr. Falter, praying that the forest east of the Keurbooms River may be opened for them.” (Phillips, 1963)

Trees such as the giant *Podocarpus falcatus* (Outeniqua Yellowwood) evidently were not sold regularly, as the woodcutters found them difficult to work with because of their size. In 1876 permission was given to rangers to encourage the woodcutters to fell large Yellowwoods, and to allow 25% more on a license
when the timber was real/ genuine. The felling and transportation of such large trees required more labour and worked up at considerably more cost. The reason for the scarcity of these majestic trees in most forests today (1923) could be because of this (Phillips, 1963).

The pleas by Harrison about the selling of the forests were heard in August, 1876, when the sale of Government (Crown) forests seemed to be viewed with less favour than previously (Phillips, 1963).

In September, 1876, Harrison proposed a policy for the forests of Knysna. He proposed that the Knysna forests must be closed as it has been exploited without any system, from all directions. He found that it was too late to introduce the rotation system of working them. Harison said that with the exception of the tract marked Lots T and U on the general plan, the forests are being rapidly cleared, especially of Stinkwood. He proposed that all the full-grown timber should be entirely cut out, thereafter they should be closed to allow them to rest and regrow. Tokens T and U can be opened for the trade of Knysna, and the forests beyond the Salt River (Soutrivier) can be worked by the people of Plettenberg Bay (Phillips, 1963).

In 1876 Harison inspected the forests of George and said that it would be unwise to alienate (sell) land, and, although unproductive at the time, might develop into a public asset under the plantation scheme (a proposal to plant the best indigenous species in exploited forest) (Phillips, 1963).

The question regarding the sale of forest lots was still unsettled. Harison said that it is a question for the Government whether the forests and forest lands are to be sold, or whether it is not high that the future should be thought of at the expense of the present generation. He said that, until now, revenue has been the criterion of forest management, and proper conservation is sacrificed to attain it. Harison thought that every care and attention should be paid to repair the reckless destruction of the forests, and an end should be brought to the advised sale of the limited forest resources. He proposed that the welfare of the forests must be studied (it should be the primary consideration), without regard to the revenue they produce. He also proposed planting whenever suitable land is available (Phillips, 1963).

Harison’s plea was met by the Commissioner’s consent to the closing of the forests east of the Kaaimans River (Phillips, 1963).

Jack Hooper, a farmer in Ruigtevlei, discovered a gold nugget on his farm in 1876, in a tributary of the Karatara River. News of the find spread and prospectors poured in from all over the world. The Cape Government however would not approve prospecting rights before the prospecting capacity of the field could be assessed, but failed to act against the prospectors who invaded the forest creeks. By 1885, 2000 claims had been pegged and some 200 diggers lived in tents around Millwood. The search for gold increased when the first gold-reef was discovered in the quartzite-veins above the creeks. This caused Millwood’s population to increase further and the establishment of the Millwood town proper. In 1886 the Cape Government ordered the prospectors to leave as they where trespassing, which almost caused a riot. This forced the government to submit to the miner’s demands and Millwood was officially declared a gold-field in January 1887. By then almost a thousand people were living in Millwood. The Millwood fields lay in the Outeniqua Mountains, closed off at the north by high ridges and in the south by lower hills and dense forest. The promised massive gold-fields never materialised and Millwood became a ghost town overnight as prospectors left for the Witwatersrand. This ultimately led to the unsuccessful exploitation of the gold fields. Mining for gold finally ended in 1905. The gold fields were finally deproclaimed in 1924 (P. Caveney, personal comm., March 2016).
In May 1877, the Government directed the Commission to instruct Harison to avoid as far as possible the issue of felling licenses to fell timber on spots where such fellings would deprive the headwaters of rivers of their protection and would denude the crests of the principal ranges of hills (Phillips, 1963).

In 1877 sanction was given to close the George forests for a number of years, to restore, replant and extend them, while funds were granted for the plantations at Concordia for the experimental raising of exotic species such as gums, blackwoods and pines (Phillips, 1963).

Between 1877 and 1880 there is nothing fundamentally different in the policy to record, except that public interest has stimulated Government to be more active in their conservation. Alienation became rarer and rarer, the policy of “fell then sell” died a natural death, and some attempt to extend the forests by means of plantations of exotics really was intended (Phillips, 1963).

In 1879 Thomas Bain began to build a road from the western end of Tsitsikamma. “What is interesting is that the passes along this road followed the ages old elephant tracks through the river gorges. A portion of this elephant trail, which connected up with the eastern Cape, can still be seen alongside the old Stormsriver Pass south of the current N2. It is a deep furrow worn out by countless elephant feet.” (T. Stehle, personal comm., 5 April 2016)

Soon the woodcutters’ petitions became more numerous and more irritable and the policy adopted again was one of compromise. The instruction to the Conservator from the Commissioner of Crown Lands and Public Works, in July, 1880 was to treat the woodcutters with as much consideration as you can. The hands of the forest officers were thus tied by higher policy. The policy during this period aimed at conservation, restoration and extension, but, in reality, it accomplished little. But gradually the authorities realised that radical change was essential to progress. The weaknesses and the lack of direction, the misapplication of former policies and the unsatisfactory foundations of the present had to be put forever aside. A fresh outlook was needed as the forests were a national heritage for which the Government was responsible (Phillips, 1963).

The first step forward was the realisation that the appointment of a scientifically-trained technical head was necessary to the welfare of the Forest Department and of the forests it sought to manage. It was an important day in the annals of South African forestry when, on the 28th June 1880, the House created the office of the first Superintendent of Woods and Forests and appointed Count de Vasselot de Regne (a professional French forest officer) as incumbent. He introduced the first real efforts towards conservation (the goal was not conservation of the forests, but rather to keep the forests in a long term productive state for its timber). Under his supervision the first relatively quick-growing softwood timber plantations were established (in Concordia, Knysna) to increase the inadequate supplies from the indigenous forests. The Forestry Department was developed and professional forestry officers were appointed who played important roles in the development of forest management in the region and rest of the country for decades to follow (Phillips, 1963).

Among the trained officers on De Vasselot's staff was Colin McNaughton, who started with experimental forest research and drew up a scientific plan for forest management. Henry Fourcade, who joined the Forest Department in 1882, was perhaps the most talented and versatile of the young professionals. For some years he was engaged in surveying and sectioning forest areas. Before the turn of the century he invented and started applying stereoscopic photography and projective geometry to topographical mapping. Fourcade completed the first checklist of trees and shrubs in the southern Cape forests at the young age of twenty. In later years he became well-known at the Royal Botanical Gardens in Kew and at the Bolus Herbarium as an outstanding botanist. Fourcade was awarded Honorary Doctorates of Science by the Universities of Cape Town and of South Africa in 1930 and 1947 respectively. He died at
Witelsbos in his beloved Tsitsikamma region in 1948. His name is commemorated in the names of 27 plants (Seydack & Vermeulen, 2004; Van der Merwe, 2002)

In 1881, under Ministerial instruction, De Vasselot carefully inspected the Crown Forests in the Colony for the first time, and the result of the inspection was the preparation of his report of 1882. He made a series of recommendations in that paper, the survey of the forests and their better conservation by an efficient and larger staff (Phillips, 1963). He summarised his proposed policy under three main heads:

- The first was to be “the application of the best possible treatment to the existing forest lands”.
- Further he had in view “the introduction of timber trees among the bushes”.
- Finally, he aspired to “planting trees on lands where forests are necessary”.

De Vasselot also mentioned the Regulations of 1875 in his report. According to him the Regulations of 1875 brought about a great improvement, but silviculturally the forest was not assisted in any way. The Count proceeded to compare the “licensing plan” (as he termed the working of the forests according to the Regulations of 1875) with a system somewhat akin to this method, namely “Jardinage”, consisting of clearing away, here and there, the oldest trees, those decaying, diseased or withered, and those of mature growth. With regards to the future of the forests, this system (Jardinage) is far preferable to the licensing plan, since it at least clears the soil of mature trees, and this provides space for those trees not fully grown (Phillips, 1963).

Harison’s criticisms of the “Section System”, as he knew it in 1866, closely coincided with those of Count de Vasselot (Phillips, 1963).

By 1881, the road built by Thomas Bain, was passable as far as Bloukrans (25 km east northeast of Plettenberg Bay). The Bloukrans Pass was completed in 1882 (1883), and by 1884, the road reached Storms River at the eastern end of the forest belt (50 km east of Plettenberg Bay) (Skead, 2009).

1882-1890

Summary of this period: We now come to the study of a period most significant in the annals of the management of the indigenous forests. It has been shown that prior to 1881 the management had not only been unsystematic and unscientific but also detrimental to the welfare of the forests. From 1882 to 1890 De Vasselot’s “Section System” was applied to some forests. This application in the majority of cases was crude, because not fully understood. Numerous modifications gradually altered the very nature of the fellings and hence detracted greatly from the silvicultural value of the system. Over-exploitation was the tendency. Fire still did much harm along the forest margins (Phillips, 1963).

Very early in the period of De Vasselot’s control he decided upon the introduction of his notable “Section System” into the forests. By 1866, Harison had introduced his own very simple “Section System” in the Tsitsikamma forests, whereby he divided the forests into “patches”, separated by natural boundaries as far as possible, and opened blocks for the felling of selected trees by license on rotation. In 1868 the Conservator and Thomas Bain, as mentioned earlier in the article, had suggested the application of this method of management to the forests of Knysna and George. Harison, according to his statement of 1876, later had found it very difficult to apply, because indiscriminate fellings had already been allowed everywhere (Phillips, 1963).

Between Harison’s “Section System” and the system introduced by De Vasselot there was, however, great disparity, not only in procedure and mode of application but also in objective. Harison’s system only had one objective, the localisation of the fellings to facilitate supervision. The Count’s system, in
addition, had the introduction of order where hitherto chaos had reigned. Most important of all, it aimed at the management of all forests upon the sound technique and principles of systematic forestry, leading towards the continuing welfare of the forests. Revenue as the main objective was replaced by the welfare of the forests and the consummation of their providing a yield in perpetuity. Silviculture and management played the leading role (Phillips, 1963).

De Vasselot revived the “Section System” and put it into operation by incorporating it into the Forest Regulations of 1883. His system was based on the management of the forests in a healthy, balanced state in which they could be exploited for their timber on a sustainable basis. In other words, it allowed for timber to be removed at a rate that matched the growth of the indigenous forest. A shelterwood silvicultural system was to be introduced with an initial conversion and regeneration period of 40 years. During the initial 40-year working period the existing stock of over-mature, mature, defective trees and undesirable species was to be gradually removed. Young growth largely consisting of desirable species, *Podocarpus* spp and *Ocotea bullata*, on each section were to produce even-aged crops to be managed on an 80-year rotation. Successful implementation of the intended system was hampered for a number of reasons, resulting in its periodic modification. First, the woodcutters remained the sole arbiters of the trees to be felled. They picked out the trees they desired to purchase and left the remainder. Second, the flourishing railway sleeper business effectively confined timber extraction to *Podocarpus latifolius* and *P. falcatus* in the sections worked for sleepers. The selective exploitation *Podocarpus* spp. and *Ocotea bullata*, apart from being unsustainable, precluded any attempts to maintain the forest in a desired state, particularly regarding the removal of the old overwood. The intended improvement fellings and the cutting of undergrowth did not happen and, after the first few years, the whole silvicultural side of De Vasselot’s system of management was abandoned. As a further complication, the number of woodcutters who were dependent on the forests for their livelihood had increased considerably (Seydack & Vermeulen, 2004).

The original silvicultural system changed from a shelterwood to a selection system. De Vasselot himself was guiding this gradual transformation by way of continual modifications, which culminated in the revised Forest Regulations in 1891. At this stage the sections became annual coupes of selective felling within a projected 40-year cycle, and stipulated minimum harvest diameter limits (The trees with acceptable diameters for harvesting were marked by officials). The diameter limits below which trees were not to be marked were fixed at about 60 cm for the *Podocarpus falcatus*, 50 cm for *Ocotea bullata* and 40 cm for most of the other species (Seydack & Vermeulen, 2004).

The Cape Forest Act was passed in 1888, which made demarcated forest inalienable. This gave a greater degree of protection to the forests, and provided for the proclamation of forests on private land as protected areas (Phillips, 1963).

1891-1913

*Summary of this period:* From 1891 to 1913 the forests were worked on a “Section System” related somewhat to that of De Vasselot but differing from it in many vital aspects. It was a “systemless” system, and one that was at no time ever properly described or logically defined. Added to its demerits was the introduction of the “Outright Section System” which did much damage because of the over-exploitation associated with it. For almost the entire period (1891-1909) a very arbitrary “girth limit” appears to have been the one and only definite prescription in the marking of sections. Often even this prescription was ignored. Fire still took a toll of forest margins but less so than during the previous period (Phillips, 1963).

During his term as acting conservator of Knysna, James D. Cooper initiated the outright section system (from 1891) according to which a contractor would purchase all trees marked for felling on a particular
The main advantage claimed for this system was that all marked trees would be purchased as opposed to only sound trees of certain species in public sections in the hope that the large majority of woodcutters would then be employed by the outright section licensees, thereby also resulting in better control of felling operations. This expectation was not, however, realised and an excessive yield was taken from the forests as both ‘public’ and ‘outright’ sections were operated at the same time (Seydack & Vermeulen, 2004).

After the abolishment of De Vasselot’s office in 1892, the administration of the southern Cape indigenous forests was delegated to the Commissioner of Crown Lands, and the demands for revenue again took precedence over the need for systematic forestry (Seydack & Vermeulen, 2004).

With a large increase in administrative responsibility, the Conservator of Forests and his senior officers came to leave the actual marking of forest sections more and more to subordinate officers. In certain cases this led to the adoption of minimum felling diameter limits as the only method of selecting trees for felling; resulting in over-exploitation, especially of those forest portions that were heavily stocked with large-sized trees. Larger and more permanent sawmills were established. In 1892, Geo Parkes & Sons took over the mill in Knysna erected in about 1873 by Lloyd & Co. Thesen & Co. had already established a small steam mill in 1898 at Brackenhill near Knysna (G. Parkes, personal comm., May 2018; Seydack & Vermeulen, 2004).

In 1904, Carl Westveld, started with the construction of an unique 2-Ft. narrow gauge railway (known locally as the Coffee Pot Railway) which were used to transport timber (mostly Yellowwood) from Diepwalle to Knysna. The railway had three stakeholders; the State, Thesen & Co. and Geo Parkes & Sons, all with a 1/3 shareholding (G. Parkes, personal comm., May 2018). The train continued to work from 1907, until it closed down, in 1949.

The outright section system was abandoned in 1913, with the passing of a new Forest Act. In order to safeguard the interests of those woodcutters dependent on the forests for their livelihood, the Act provided for a “Registered Woodcutter System” that was introduced in 1913. Existing woodcutters up to the age of 65 had to register in order to receive permits, and no new woodcutters were allowed to register, which meant that they could not cut timber in the Crown Forests. The registered woodcutters had to draw lots for demarcated forest sections, where they could fell marked trees selected by forestry officials. Since all registered woodcutters had to be supplied with sufficient timber, heavy over-exploitation continued (Phillips, 1963).

1914-1939

After earlier successes with plantation projects (1880’s), a programme of afforestation with exotic species (mainly pines and Eucalyptus spp.) was undertaken between 1917 and 1939. The plantations were to provide for future timber requirements and to combat poverty and unemployment. The exotic species were mainly planted in George from 1917 and in Knysna from 1922 (Phillips, 1963).

However, even under the “Section System” forest destruction continued because the demand for indigenous timber made the woodcutters exceed the recommended volume to be removed. A forest inventory done conducted from 1927-30 indicated that the maximum quota per woodcutter which could be justified silviculturally for the period until all the woodcutters had died, or had reached age 65 (when they became entitled to an old-age pension) was only 8.5 m³ per year. This was considerably less than the annual quota of 19.8 m³ per woodcutter which was authorised at the time (The woodcutters were able to pressurise the Forest Dept. to increase the volume of timber sold to them each year, this was obviously
the most important factor in the management of the forests at this time. Any attempts by the staff of the Forest Dept. to prevent the destruction of the forests were regarded as bureaucratic attempts to repress the unfortunate woodcutters). The average net income from the working of 19.8 m³ of timber per year was estimated to be a mere 25 pounds and a reduction of the quota to 8.5 m³ was obviously not viable. The “Registered Woodcutter System” was brought to an end in 1939, when all of the registered woodcutters were de-registered. The very old (>65 years) and disabled woodcutters were pensioned off. The remaining fit and able woodcutters were given an annuity of 25 pounds which paid out every year from 1939 until the woodcutter turned 65 and retired. They were employed by the Government Forestry Dept. in exotic plantations and some were used for controlled timber harvesting of dead/dying trees in the forests (Seydack & Vermeulen, 2004).

During this period some promising research and planning work had taken place with regard to the indigenous forests. McNaughton’s pioneering research work since the turn of the century heralded an era of systematic ecological and silvicultural study, which gained impetus when John Phillips was appointed as Forest Research Officer at Diepwalle Forestry Station in 1922. He was the first South African to receive a doctorate in the field of forest ecology, from the University of Edinburgh. His thesis, entitled Forest Succession and Ecology in the Knysna Region, was published as a memoir of the Botanical Survey of South Africa in 1931. Phillips’ research into the ecology of the southern Cape indigenous forests culminated in the formulation of forest types for differentiated silvicultural treatment. Phillips’ concept of forest types was further developed by his successor at Diepwalle, FS Laughton, who incorporated it into his working plan for the Diepwalle forest. This plan represented a highly intensive form of yield regulation (single-tree selection) based on the increment determined by periodic full growing stock enumeration and the correction of the growing stock towards a normal one. A normal growing stock is one in which stocking levels, diameter class distributions and species composition have been manipulated towards values believed to enhance maximum sustainable timber yields. However, Laughton’s form of yield regulation was never implemented, although it did lay the foundations for further development and implementation in 1967 under Dr. F. von Breitenbach (Seydack & Vermeulen, 2004).

The Department of Forestry closed the forests to all exploitation from 1939 to 1964 except for the cutting of dead and dying trees and the working of windfalls in more accessible forest parts. The Government agreed to give the de-registered woodcutters six months employment each year (those who were still able and willing to work) on the felling, preparation and extraction of timber from the forests to be sold annually by auction (annual auctions were introduced after the abolition of the woodcutter system) (Seydack & Vermeulen, 2004).

1940-1963

The exploitation of plantation-grown *Acacia melanoxylon* intensified towards the latter half of this period, and the felling of indigenous hardwoods now primarily served to supply the minimum requirements of small furniture workshops and local timber industries. By this time there was no longer a specialised staff in the service of the Forestry Department and plantation officers were fully occupied with the management of their exotic plantations. Marking indigenous trees for felling was usually done by a foreman who interpreted the “dead and dying” felling criteria loosely so that any conveniently placed mature tree could be felled. The indigenous forests had become of secondary importance to plantation management (Seydack & Vermeulen, 2004).

1964-1983
An Indigenous Forest Management, Planning and Research Station was established at Saasveld, near George in 1964. After 1964, under the leadership of Dr F. von Breitenbach and assisted by Messrs. G.H. von dem Bussche, K. von Gadow and C. J. Geldenhuys, a comprehensive system of indigenous forest management was developed (Seydack & Vermeulen, 2004).

After extensive negotiations between the National Parks Board and the then Secretary of the Department of Forestry and his Minister, the Tsitsikamma Coastal and Forest National Park was proclaimed in December 1964 to establish South Africa’s first marine protected area and conserve the associated coastal forests of the region (South African National Parks, 2014). The size of the park has changed over the years, with the following changes:

- In 1983 the seaward boundary of the park between the Groot - and the Bloukrans rivers was extended to three nautical miles offshore.
- On 18 December 1987 De Vasselot Nature Reserve was added to the coastal park.
- The small Tsitsikamma Forest National Park was deproclaimed in 1989, and the name of the coastal park was shortened to the Tsitsikamma in June 1996.
- In October 1991 a 30 year lease was signed with Rand Mines Properties Limited to contractually manage the Soetkraal area, and in 1997 Soetkraal was proclaimed a contractual park in terms of the National Parks Act, 1976.
- In April 1996 the seaward boundary of the De Vasselot section was extended 0.5 nautical miles (0.9 km) offshore, and in December 2000 the marine section of the park (excluding the above De Vasselot marine area) became the Tsitsikamma National Park Marine Protected Area.
- In 1995 Erven 382, 444 and the Remainder of Erf 434, Nature's Valley were proclaimed as a contractual section of the park, followed in 1996 by (Buitenverwachting) Portion 1 of Farm 299 and Portion 3 of the farm Matjies River 295.

The recovery of the Knysna forests had progressed sufficiently for the commencement of limited timber harvesting for the furniture industry from 1965 onwards. Controlled harvesting through a sophisticated and conservative single-tree selection system was implemented for the first time in about 20 per cent of the forests. A single tree selection system was adopted as this most closely resembles the natural disturbance processes. Harvesting takes place on a 10-year felling cycle, which represents a compromise between the cost-effectiveness of management, which favours long felling cycles, and the prevailing disturbance regime, which favours short felling cycles. Timber was sold by public auction (South African National Parks, 2014).

The first completed indigenous forest management plan (Groenkop Management Plan), based on multiple-use conservation management, was put into operation in the Knysna forests from 1967 onwards. This forest management system was thorough both in concept and implementation (Seydack & Vermeulen, 2004). It was characterised by the following features:

- A management classification system formally introduced and provided for the principles of multi-purpose conservation management. These classes included forest areas set aside for production (timber harvesting), protection, conversion (forest reconstruction), recreation and research (Seydack & Vermeulen, 2004).

- The silvicultural system involved a selection system (single-tree selection system) based on the normal forest concept (see above), and timber yields were a by-product from removals aimed at achieving normality of the forest growing stock (Seydack & Vermeulen, 2004).

- Numerous silvicultural operations such as culling of specified non-useable trees, enrichment plantings, slashing of undergrowth (Trichoclados crinitus), climber cutting and tending of regeneration, were stipulated in an attempt to improve the productivity of the forest (Seydack & Vermeulen, 2004).
The specialised Indigenous Forest Management unit was disbanded in 1971 and the execution of work in the indigenous forests again rested with the plantation management units; although partially assisted by an indigenous forest planning section which continued to operate. Support for the high intervention, intensive silvicultural system of indigenous forest management progressively eroded away and was not replaced by a satisfactory alternative. Timber harvesting continued according to the selection system in those forests or which management plans existed, but gradually degenerated into exploitation of opportunistically interpreted “dead and dying” trees, thereby partly reverting back to the situation of 1939-1963 (Seydack & Vermeulen, 2004).

This unsatisfactory state of affairs resulted in a meeting (July 1981) to discuss the future management of the indigenous forests. At this meeting, later known as the MANINFOR meeting (Management of the Indigenous Forests), problem issues were discussed and decisions taken to investigate, devise and implement a new approach to forest management (Seydack & Vermeulen, 2004).

The Wilderness National Park was proclaimed in 1983 to protect the unique lakes system of the area, with subsequent additions made in 1986 (Swartvlei System), 1987 (state lands in the Wilderness National Lake Area), 1991 (Rondevlei and lands between Rondevlei and Swartvlei Lake), and 1997 (lower Duiwe River) (South African National Parks, 2014).

1984-2011

The period from 1984 onwards saw the reinstatement of specialised indigenous forest management under the leadership of Messrs. A.H.W. Seydack and D. Willems, assisted by Messrs. T.C. Stehle on the management side and D. van Dijk and W.J. Vermeulen as planning section leaders. Subsequent to the MANINFOR meeting, new strategies and approaches for indigenous forest management were developed and became operational in 1984 through the Forest Act 122 of 1984. Further developments resulted in a series of modifications to the yield regulation system (Seydack & Vermeulen, 2004). Four management features characterise this period:

- The actual implementation of principles and prescriptions over the complete forest area was facilitated by a specialist indigenous forest management unit (Seydack & Vermeulen, 2004).

- Conservation and utilisation requirements were fully harmonised with the aid of a modernised management classification system, which also provided for a network of strict nature reserves (timber harvesting, protection recreation and research). Such strict nature reserves serve the purpose of protecting representative examples of ecosystems (forest types) in a naturally dynamic state for scientific study (monitoring) and for wilderness-based recreation (Seydack & Vermeulen, 2004).

- Developments in the approach to yield regulation represented a movement away from interventionist forest manipulation towards pursuing the objectives of timber use in alignment with natural forest dynamics. The yield regulation system for sustainable harvest levels is based on species-specific productivity data (increment, ingrowth, mortality) and congruent with prevailing features of forest dynamics (absence of silvicultural manipulations) (Seydack & Vermeulen, 2004). The yield regulation system used in the Garden Route forests is a single-tree selection system that was developed locally, known as the Senility Criteria Harvesting (SCH) yield regulation system. Timber has been harvested according to this system since 1992, which is based on natural mortality patterns (South African National Parks, 2014). Harvesting is limited to forest types and sites that are the least ecologically sensitive. The system aims to pre-empt, and thus utilise natural mortality, resulting in the harvesting of the most senile trees. Individual trees are selected for harvesting by applying selection criteria that are based on external, visible signs of senility, declining vigour and low future life expectancy. The criteria are described for each of the main canopy species, and are calibrated to the
natural senility patterns as determined by long-term research results. Trees falling within the selection criteria are marked for removal by trained markers if they can provide marketable utilizable timber. The maximum yield level currently achievable according to the SCH yield regulation system is approximately 5 m³/ha every 10 years, or 0.5 m³/ha/yr. All harvestable trees (i.e. meeting selection criteria and with utilisable timber) with dbh ≥ 30 cm of all canopy species would have to be removed to achieve this (8 – 12 trees per ha every 10 years from the same areas). However, due to market demands only real yellowwood (*Podocarpus latifolius*), black stinkwood (*Ocotea bullata*) and hardpear (*Olinia ventosa*) are currently harvested to ful

The actual annual yield is about 0.2 m³/ha/yr, which is approximately 40% of total forest productivity (SA Forestry Online, 2010).

- Ongoing monitoring of, and research into, aspects of forest dynamics provides the basis for continuing improvements in indigenous forest management (Seydack & Vermeulen, 2004).

With the logging technologies and methods presently in use only about 6500 of the 9276 ha of the Timber Harvesting Management Class (*forest which is suitable for timber utilisation*) are effectively subjected to harvesting, primarily due to conservation constraints requiring terrain restrictions (*no harvesting on steep slopes and in moist patches*). Innovative alternative harvesting approaches (*e.g. involving on-site conversion of logs to beams or planks*) would probably allow the harvestable area to be extended to over 12000 ha (*extending into suitable parts of Management Class B areas*) (Seydack & Vermeulen, 2004).

The Knysna National Lake Area was proclaimed in 1985 in order to protect the Knysna Estuary (South African National Parks, 2014).

In 1993 State forest land was transferred to the newly created South African Forest Company Ltd (SAFCOL) to place the State’s forestry activities on a commercial footing. Major indigenous forests were excluded from the land transfer. Management of the Knysna forests remained with the Chief Directorate of Forestry of the Department of Water Affairs and Forestry (DWAF) (Van der Merwe, 2002).

It was decided in 2005 that about 97 300 hectares of state forests, formerly managed by the Department of Water Affairs & Forestry (DWAF), should be transferred (*under the National Forest Act, 1998*) to SANParks. The transfer included 35 756 hectares of indigenous forests (the Farleigh, Diepwalle and Tsitsikamma estates), about 35 638 hectares of mountain catchment area (*mostly fynbos in the Outeniqua and Tsitsikamma mountains*) and about 25 900 hectares of land under pine plantations. The plantations will be clearfelled, rehabilitated and transferred to SANParks. The transfer process started in 2005 and will be completed in 2020 (Department of Water Affairs and Forestry, 2005).

The Garden Route National Park was declared on 6 March 2009. The Tsitsikamma National Park and Wilderness National Park were included to the Garden Route National Park on 11 February 2011. SANParks is responsible for the management of the GRNP, which includes the previously DWAF managed indigenous state forests and mountain catchment areas in the Outeniqua and Tsitsikamma Mountains, as well as the established Wilderness National Park, Tsitsikamma National Park, and the Knysna Protected Area (*Knysna National Lake Area*) (South African National Parks, 2014).

On 22 July 2011 45 former state forest land parcels (*“DWAF properties”*) adding up to 120 566 ha was proclaimed as national park. Twenty two more state forest areas (11 789.6 ha) in respect of which the transfer will be done progressively but immediately following the termination of plantation forestry on these areas, will still be proclaimed in future. The land stretches from Saasveld east of George to East of Storms River village (150 km), often from the crests of the Outeniqua and Tsitsikamma mountains south to the farming or plantation areas and up to the coast in some areas (*Harkerville State Forest*) (South African National Parks, 2014).
Bibliography:


MAPS:

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Harkerville and Garden of Eden drawing extract (circa 1910)

Source: DAFF Knysna archives
Map of Karatara (1874)

The map below was copied from the: “Plan of Forest Lands in the Divisions of George and Knysna prepared by Surveyor Hollands Compilation of Surveys by Surveyors Ford, Petersen and himself”

Source: DAFF
Forestry diagram showing woodcutter allotments at Kraaibosch and Sour Flats (1891) drawn by Henry Fourcade

Sour Flats was known later as Balmoral and today known as Bibby’s Hoek

Source: Philip Caveney (Knysna Historical Society)
Map drawn in 1985 by Dave Reynell