THE WHITE LABOUR FOREST SETTLEMENT PROGRAMME IN SOUTH AFRICA 1917-1938

by

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Abstract

An historical and geographical study of the White Labour Forestry Settlement Programme operated by the South African government's Departments of Forestry, Agriculture, and Social Welfare, during the years 1917 to 1938. This programme attempted to create permanent communities of forest workers based upon ideas imported from Europe and aligned with the concepts of the "agrarian myth" and the "back-to-the-land" movement. It is shown that the ground preparation techniques used in the programme also originated in Europe and were modified in the Cape Colony before being used in the rest of South Africa. The plantations created by the programme were generally of imported softwood species. The forestry side of the programme, it is proposed, demonstrated the process of ecological imperialism. It is argued that the social side of the programme failed to create permanent communities and failed to change the lifestyle of the "poor white" sector of the population at which it was aimed. The programme did, however, provide some twenty thousand "settlers" and their families with accommodation and a job for part of their working lives. The settlers also created a significant afforested area on what had been open veld in the high-rainfall regions of South Africa. In doing so, they demonstrated the viability of plantation forestry as a basis for a woods industry in this country.

Declaration

This dissertation is entirely my own work and has not been previously submitted as a dissertation or thesis for any degree at any other University.

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Preface

The historical geography of South Africa's forest based industry is a little studied topic. This is unfortunate because, as this study shows, in the past foresters have been engaged in a great deal more than planting trees or tending forests. Whether they liked it or not, the foresters of the period 1917-1938, were deeply involved in the political and social issues of their day, They were also much more in the forefront of the public's awareness than their modern counterparts as is shown by the newspaper articles describing the settlement programme and the poor white settlers. Forestry, as this study shows, is a relative newcomer to the industrial "scene" of this country. It is also an important one as demonstrated by South Africa's experience in the two World Wars of this century when supplies of woods products were cut-off. Thus, this dissertation represents the beginning of what could be a very fruitful series of investigations into the ecological, environmental, social, economic and political impact of forestry in South Africa.

This study has benefitted from the help of many people. In particular I would like to thank my supervisor, Professor Chris Rogerson for his active involvement, advice and good criticism as well as the staff of the Department of Geography at the University of the Witwatersrand, especially Phil Stickler who drew the maps. Dr Dick van der Zel of the Department of the Environment assisted me with gaining access to the Department's Central Forestry Library where I was immeasurably assisted by the

co-operative staff. Professor Albert Grundlingh, History Department, University of South Africa, helped me considerably with his knowledge of the forest industry in the Knysna area and of the woodcutters and poor whites. Professor M.M. Roche, Department of Geography, Massey University in New Zealand provided me with information about the links between South Africa and that country. Similarly, John Dargavel at the Centre for Resource and Environmental Studies at the Australian National University provided me with information about Australia. Professor D.G.M. Donald, Department of Forestry, Stellenbosch University, provided me with material from his own study of the history of forest nursery techniques in South Africa. Professor Bruce Hodgins, Department of History, Trent University, discussed with me my ideas about the movement of forestry techniques and provided me with several valuable references. Professor Graeme Wynn of the University of British Columbia is thanked for his support and encouragement. As can be seen, this study has relied heavily upon archival sources and the staff at the Central Archives Depot in Pretoria were particularly helpful during the months I spent in their basement. Lastly, but by no means least, I wish to thank my wife, Lucie Edwards, Counsellor at the Canadian Embassy in Pretoria. She provided the means for me to make this study, actively assisted me in my research work, and encouraged me to drive to the top of the next hill to visit the site of yet another settlement.

With the permission of the Department of Geography, University of the Witwatersrand, material from this dissertation has already been published. See: "Politics and Forestry in South Africa: Racism, Social Engineering and the White Labour Forest

Settlement Programme of 1922-1938," in Lesnicke Drevaske a Polovnicke Muzeum v Antole Historicko-dokumentaene Pracovisko vo Zvolene, Historia Novsej Lesnickej Politiky v Jejodraze na Socialne a Eckonomicke Problemy (Zvolen: I.U.F.R.O., 1988), 169-78; "The White Labour Forest Settlement Programme of 1917-1938," (Paper read to the Twelfth Biennial National Conference of the South African Historical Society, 24-27 January 1989); "'An Interesting Social Experiment'" (Paper read to the African Studies Seminar, African Studies Institute, University of the Witwatersrand, 15 May 1989).

Finally, I wish to remember the settlers, and will do so with this anecdote. The office of the modern forestry station at Tweefontein is located on the site of one of the settlement's cottages. The forester said that, one rainy day, he came out of his office to find an elderly woman standing just outside the door, underneath a tree. She was "crying her eyes out" he told me. He managed to get her to come into his office, out of the rain which had soaked her. With some difficulty, she told him her story. His office stood where her house had been. One rainy day, her two sons were playing under the tree that still stood in front of his building. The tree was struck by lightning and her sons were killed. They had been buried in the settlement cemetery and she had come to see their graves and the place where they had died. In the end, this dissertation about the settlements is really about the settlers who lived, loved, died and planted trees on the open veld of South Africa.

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Introduction

Over seventy years ago, South Africa's Department of Forestry started a large scale tree planting programme. The scheme involved the establishment of communities of poor whites in areas suitable for afforestation. The residents of the settlements were recruited from amongst the nation's unemployed and dispossessed. Like many similar projects, the proposers had no idea as to the eventual outcome of the programme nor how important it would become for forestry in South Africa. Twenty-two communities were eventually established, all in the high rainfall areas of the country. The first settlements were founded in the Cape in 1917 and the final settlement was built in northeastern Transvaal during 1934. Up to 1938, the settlements were operated by the Department of Forestry in conjunction with other government Departments, notably the Department of White Labour, the Department of Labour and the Department of Labour and Social Welfare. In 1938, control over the settlements was passed to the Department of Social Welfare. At the same time, the planting programme in which the settlers were taking part effectively came to an end.

In 1917, South Africa, with other members of the British Empire, was busily engaged in prosecuting the war with the Central European Powers. A controversial, but successful, campaign in the German colony of South West Africa had been completed. The level of casualties in Europe was high, however, and the government was struggling hard with the problem presented by the prospect of numbers of discharged soldiers some of whom would never recover

from their wounds. The South African Party government led by General Botha, was aware that, once the war was over the small problem of 1917 would turn into a major embarrassment once the soldiers fighting in Europe returned home. In fact the government was already under fire from its parliamentary opposition. Many critics were pointing out that the government was doing very little to improve the lot of several thousand white families seemingly permanently immured in poverty. Plans to solve the problems of these two groups were called for. One such project, which had lain dormant since 1913, came from the Department of Forestry. It called for the establishment of settlements of white forestry workers who would afforest suitable areas of the nation. It is this programme which forms the topic of this dissertation.

Because this dissertation investigates the White Labour Settlement Programme in terms of forestry and settlements, it can be logically divided into two parts. The first three chapters broadly concern the forestry side of the programme while the last four investigate the settlements and their political and social background. Chapter One reviews the sources of the ideas which not only suggested the programme to its proposers, but also guided the form it would take. This is considered under the heading of "ecological imperialism." Forestry in South Africa is a particularly good example of this form of imperialism because all the forestry methods employed in the country in the 1920s and 1930s, originated overseas although they were refined and adapted to local conditions. The settlement programme itself was derived from imported ideas. These are considered to be part of the "agrarian myth" and its outgrowth, the "back to the land" movement. Both the myth and the movement originated in Europe

reaching their full development in North America. In South Africa, the settlement programme owes much to a similar Euro-North American development, the labour colony. The growth of the labour colony idea and how it was transferred to South Africa are discussed in the penultimate section of the chapter.

The physical environment of forestry in South Africa is discussed in Chapter Two. The theme of this chapter is that an afforestation programme of some sort was a political and economic necessity for South Africa following its experience in the First World War. At this time, it became apparent that the small, scattered areas of indigenous forest were incapable of supplying all the wood the country needed. After reviewing the state of the indigenous forests, the development of the South African Department of Forestry is chronicled. The Department owes much to European foresters who were brought to South Africa to control the utilization of indigenous trees, stabilize the sand dunes, and create plantations of imported trees suitable for railway ties and mine timbers. During the 1920s and 1930s, the environmental limitations on plantation forestry were naturally not as well understood as they are today. In particular, the methods used by foresters of the day to calculate their establishment costs and project them forward to the expected harvest date, had a considerable effect upon the programme and forestry as a whole.

Having investigated the forestry environment, the third chapter analyses the process of afforestation, as practiced in the 1920s and 1930s, and the working conditions of the settlers. This chapter opens with a discussion of the contract the settlers signed when they joined the programme. The contract laid down the conditions of employment for the settlers, including pay, hours of

work and the responsibility of the settler for the behaviour of his family. Once a settler arrived at his new job, he would be faced with working in one of the country's more extreme environments. All the settlements were located in high rainfall areas and the settlers were expected to work in the rain if necessary. This was particularly so at planting time.

Before the real work of afforestation could start, the settlers constructed roads and bridle paths into the new plantation areas. Regardless of the ground cover that existed at the start of afforestation, the degree of preparation required before the trees could be planted was the same. Only using hand tools, the settlers stripped off the existing vegetation and worked the soil up to a tilth. Since much of this work was done under piece-work, the settler's were often under considerable stress. Once the ground preparation phase was completed, the area would be planted using stock grown in the settlement's own nursery. The point is made that the methods used were developed in the Cape and "exported" to the rest of South Africa. Although the method used was not the most efficient, it had the benefit of being simple and rugged and protecting the seedling all through the process. The chapter ends with a discussion of the various tasks that were carried out after planting was completed and the young trees grew towards harvesting.

With the close of the third chapter and the end of the first part of the study, the emphasis of the dissertation switches to an examination of the settlements and the settlers. In Chapter Four the political conditions and processes which underpinned the creation and, later, the expansion of the programme are reviewed. Factors discussed include the effect of the Forest Act of 1913 on

the woodcutter population of Knysna, the social and political results of the 1922 Rand Rebellion and the concern of the Pact government to solve the poor white problem. It is hypothesized that the attitude of the politicians was influenced by historical factors which placed the poor white at the bottom of the white social scale. The policies used by Smuts and Hertzog, in their attempts to deal with the poor white problem, are thought to have been heavily influenced by the agrarian myth and the back to the land movement which is discussed in Chapter One. It is considered, with reference to the policies adopted by Smuts, that short-term measures were employed and that no attempt was made to get to the root of the problem. In contrast, the Pact government took the poor white problem seriously and used a well planned, multifaceted and co-ordinated approach which followed on its creation of a Department of Labour. Accordingly, the White Labour Forest Settlement programme became an integral part of this effort which involved several government departments and the development of a specialist role for the programme's welfare officers.

Chapters Five and Six share the role of presenting statistical data about the settlers and the individual settlements. Two chapters are used because of the amount of data and because the settlements were founded in two distinct phases. Chapter Five reviews the information available about the settler, his family and how long he stayed in the settlement. The chapter also covers the temporary unemployment relief camps and the nine communities built in the years 1917 to 1925. Chapter Six is devoted to an analysis of the data available about the thirteen settlements constructed during the years 1929 to 1934. While most of the first nine settlements were located in the Cape, the

majority of the second phase communities were situated in the Pilgrims Rest-Sabie region of northeastern Transvaal. In both chapters, the size, location and facilities available at each settlement are reviewed.

Chapter Seven is devoted to the important themes of settlement planning and housing. Generally, the settlements were laid out by the local forester although the Department of Forestry did, at least once, use professional help in planning. The topic of planning is covered in the first section of Chapter Seven while the development of the housing is considered in the second. These items are significant as they yield a practical demonstration of the social status of the settlers, not only in the programme, but within South Africa as a whole.

The social services available within the settlements are the focus of attention in Chapter Eight. The medical services were supervised by the District Surgeons (employees of the Department of Health). These doctors made monthly visits to the camps, were "on call" for emergencies and supervised the work of the settlement's nurse, an employee of the Department of Forestry. This section, besides discussing the organization of the medical services, also investigates the influences upon settlement life of the District Surgeon and the nurse. Because the settlements had large numbers of children present, the school and the teachers were vital parts of community life. Schooling was also a means of achieving the social aims of the programme adopted by the Pact and Fusion governments. The last section of Chapter Eight deals with the role of the Welfare Officer. Each settlement was assigned a welfare officer and he and his wife were responsible for implementing government social policy. This aspect of the

programme was probably its most controversial yet least known. It is suggested that the government's objective was not to "lift" the poor white from his low position in society but rather to change him and his family so that they no longer represented a political threat to the status quo.

This study covers the programme up to the year 1938 when control of the settlements was transferred to the Department of Social Work. This date also marks the end of the major afforestation effort. The dissertation ends with a conclusion followed by several appendixes giving the raw data on which the statistics were based.

The major source of information about the White Labour Forest Settlement Programme was the Department of Forestry holdings in the Central Archives Depot in Pretoria. In addition, over half the settlement sites were visited and notes and photographs taken. At only one contemporary forestry station was any archival material found, this was Weza in southern Natal. At all the other sites, potential archival material had long-ago been forwarded to the regional offices where it had been destroyed according to Government regulations. Other major sources of information were the bound, type-written reports in the Department of the Environment, Central Forestry Library, and the Department of Manpower Library in Pretoria. Interviews were conducted with a settler and his children from Blyde in the Transvaal and the son of a settler who had lived at Weza. Finally, a number of foresters as well as senior personnel in the Department of the Environment provided the author with information and copies of now hard to obtain government reports.

Chapter One

Ideas and Agendas

Introduction

This study concerns the use of labour colonies to afforest the South African veld. The colonies were based on ideas developed by Europeans in other parts of the world and transferred to South Africa. Since the afforestation of the South African veld involves ecological change, an accurate description of this particular process is one of "ecological imperialism."

Ecological imperialism is a descriptive term for part of the world wide movement of ideas that followed in the wake of colonization and which resulted in ecological change in the host country or region. Some aspects of ecological imperialism are akin to intellectual imperialism. Historical geographers such as Cole Harris, have written about the way in which European settlers brought considerable, intellectual, social and cultural baggage with them to the "new lands" they were occupying.[1] This process Harris has termed the "simplification of Europe overseas." Harris argues that one of the effects of settlement was that the baggage was "simplified" in that habits of action and thought which did

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1. R. Cole Harris, "The Simplification of Europe Overseas," Annals of the Association of American Geographers 67, 4(December, 1977): 469-83.

not assist the settler to adapt, were abandoned. Thus, the new society could have many aspects of its behavior which were reminiscent of, but still noticeably different from, the same habit in the country of origin. This dissertation, however, is not about this genre of imperialism, or about the simplification of European cultural habits. Rather it is about the perception, by people of European culture, of a discrete set of ecological and social problems existing in the country in which they lived. Given this perception, they imported solutions from overseas even though they had been settled in the land for many generations. These ideas were then adapted to fit the problem and then applied as a solution.

Ecological Imperialism

There are many forms of imperialism all of which might be defined as the implantation of aspects of the way of life of one group of people upon another group as part of the process of subjugation. There thus can be political and cultural imperialism and aspects of both these forms can be recognized as appearing here. It is ecological imperialism which concerns this section. This is the artificial importation of new ecological systems to an existing and viable ecology. Clearly this can take many forms but we will consider here only two, voluntary and involuntary.

Crosby, in his discussion of why "Neo-Europeans" have been so successful as colonizers, considers that a good portion of their success has been due to the biota they carried with them as

they travelled to new lands. Terming these biota "portmanteau biota," he examines the way in which the ecology of a number of the world's regions has been transformed by imported plants and animals.[2] The point is that most portmanteau biota are involuntary in that they accompanied the colonizers on their journey to the "new land." This process was accomplished with little forethought as to the suitability or adaptability of the biota to the new environment. This, however, is not so with voluntary imports. These are biota which are transported to the site of colonization after settlement with the expectation that they will change the ecology of the new land in a specific desired manner.

Voluntary ecological imperialism has taken place all over Africa and examples of it are numerous.[3] In the instance of this dissertation, the example of interest concerns the importation of forestry ideas and the planting of the South African veld with imported species of trees.

Afforestation is not a process indigenous to South Africa or any other nation in the Southern Hemisphere. Practical, commercial afforestation was simultaneously developed in Europe and Japan in response to growing shortages of wood during the seventeenth, eighteenth and nineteenth centuries. In Europe, plantation forestry developed when earlier systems of management, copice and standards and pollarding, failed to produce a yield of

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2. Alfred W. Crosby, Ecological Imperialism: The Biological Expansion of Europe, 900-1900 (Cambridge: Cambridge University Press, 1986), 270-71.

3. For example see: Elspeth Huxley, White Man's Country: Lord Delamere and the Making of Kenya 2 vols (London: Macmillan and Co., 1935) especially vol 1, chapters 7 and 8.

required products. Both these systems date from the earliest medieval times and were developed by monasteries. Copice and standards involves growing a stand of deciduous trees to a certain size (the standards) and cutting a proportion of the trees at ground level. The stumps then vigorously sprout, each stump forming a copice. The remaining standards are then gradually cut and each copice thinned until it is down to one large stem, a new standard. Then the rotation is repeated. The treatment to produce pollards is similar only the trunk of the original tree is cut at a height of about two metres instead of at ground level. At the same time as plantation forestry techniques were evolving, exploitation of indigenous coniferous forests was continuing and systems of managing natural forests on a sustained yield basis were created. The most sophisticated system combining all known methods was to be found in France where, in the years preceding the Revolution, copice and standards was combined with sustained yield management of mature deciduous and Silver fir forests.[4]

With the industrialization of Europe, and simultaneously with Japan, these management methods were not able to supply the required quantities of woods products. Increased controls on forest access and on cutting alleviated the problem but only until the late eighteenth century. At this time, methods of artificially growing tree seedlings in nurseries in sufficient

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4. Susan R. Jones and David L. Wigston, "The Warleigh Woods of Tamerton Foliot, Devon, UK, 1778-1914; a Study in the Decline of Sustained Wood and Timber Management," in Harold K. Steen (ed), History of Sustained-Yield Forestry: A Symposium (Santa Cruz: Forest History Society, 1984), 375-91; Heinrich Rubner, "Sustained Yield Forestry in Europe and its Crisis During the Nazi Dictatorship," in Steen, History of Sustained-Yield, 170-75; Conrad Totman, "From Exploitation to Plantation Forestry in Early Modern Japan: An Overview," in Steen, History of Sustained-Yield, 270-80.

quantities to make planting economically feasible were developed. In addition, knowledge of market demands plus species site requirements made it possible to choose both the site and the correct species to plant. As a result, afforestation became the preferred means of forest management especially in Germany where softwood demand was highest. This process was paralleled in Japan.[5]

Within the British Empire, three large land masses afforested appreciable areas on models provided by Europe. These were India, South Africa and Australasia. In terms of time, the last area to adopt an afforestation programme was that of Australia and New Zealand. The idea that afforestation was a suitable remedy for ecological "problems" in these countries did not travel directly to each country from the Northern Hemisphere, rather it arrived via a circuitous route. The careers of three foresters demonstrate the way in which forestry and conservation ideas travelled from the Northern to the Southern Hemispheres. Like many contemporary foresters in the British Empire, two of the men were trained at the Ecole nationale foresteire in Nancy, France. This school was prominent because it was the only school of forestry open during the nineteenth century which did not concentrate on the management of northern European pine forests. Thus, many foresters who planned careers in southern Europe, India, South Africa or Australasia, studied there.[6] Subsequently,

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5. Rubner, "Sustained-yield forestry," 171; Totman, "Exploitation to Plantation Forestry in Japan," 270-80.

6. See David E. Hutchins, "Forestry in South Africa," in W. Flint and J.D.F. Gilchrist (eds), Science in South Africa: A Handbook and Review (Cape Town: T. Maskew Miller, 1905), 398-99; Gifford Pinchot, Breaking New Ground (Seattle: University of Washington Press, 1972), 8-16.

more schools were opened. By the beginning of the twentieth century, trainee foresters, employed by the British government and destined for service in India, were trained at the Cooper's Hill Forestry School (later attached to Oxford University as the Commonwealth Forestry Institute). Until the forestry degree programme was established at the University of Stellenbosch in 1932, South African foresters on the Department's training programme studied at Nancy, Coopers Hill or at Yale in the United States.

With regard to the development of forestry in South Africa, the first forester employed by the government was Joseph Storr Lister. Born in the Cape during 1852, he had family connections in India. These helped him to obtain a position as an untrained Assistant Forest Officer in the Punjab in 1869. Five years later, while recovering in England from an attack of typhoid fever, Lister heard about and applied for the position of Superintendent of the Drift Sands Plantations at the Cape, then under the control of the Cape Colony Department of Lands. Between 1875 and 1881, Lister established many plantations. Specifically he was responsible for introducing the Port Jackson willow (Acacia saligna) to South Africa and planting it extensively on the sand dunes near Cape Town and Port Elizabeth. Besides stabilizing sand dunes, Lister established a number of other plantations, with the intention of providing wood for the railways, and founded the Tokai Arboretum at Rondebosch. Most of the trees Lister planted were of various Eucalyptus species though he is also credited with establishing the first Monterey pine (Pinus radiata) plantations in the country demonstrating both the species' ability to be

easily planted and its high rate of growth in South Africa.[7]

The plantations that Lister established with the intention of producing railway sleepers and locomotive fuel, were so successful that, in 1880, the government of the Cape Colony decided to create a proper Department of Forestry. Lister, who had had no formal forestry education and hardly any experience outside of the Cape, was not considered suitable at this stage in his career to head the new department. To fill this role, the government signed a ten year contract with the Comte de Vasselot de Regne, a citizen of France and a graduate of the forestry school at Nancy, France. Under the Comte's direction, Lister continued his career in the Cape civil service while the Comte organized the Department of Forestry on the French model and controlled logging operations in the indigenous forests. After the Comte's departure, Lister was successively promoted to the posts of Conservator of Forests, Eastern Conservancy (1888-1905), Chief Conservator of Forests, Cape Colony (1905-1910) and Chief Conservator of Forests for the Union, (1910-1913). Thus, by 1890, the major influences on forestry in South Africa came from France and British India. The Comte was also responsible for bringing to South Africa two influential foresters, David Hutchins and C.E. Lane-Poole. These men were instrumental in expanding this

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7. N.L. King, "Historical Sketch of the Development of Forestry in South Africa," Journal of the South African Forestry Association 1(October, 1938): 4-16; Margaret H. Lister, "Joseph Lister, the First Chief Conservator of the South African Department of Forestry," Journal of the South African Forestry Association 29(May, 1957): 10-18. The Department's experience with these plantations is described in Gordon H. Pirie, "Railway Plantations and Railway Sleepers in South Africa, 1910-1937," South African Forestry Journal 122(September, 1982): 59-62.

8. Ibid.

influence to Australasia.[8]

David Hutchins was born in England and, like the Comte de Vasselot de Regne, took the forestry course at Nancy. Whether or not he was contemporary at the school with the Comte is not known. After graduation, Hutchins joined the Indian Forest Service which had sponsored his forestry education in the first place. Then, in 1883, two years after the Comte had taken up his contract as superintendent of forestry with the government of the Cape Colony, Hutchins transferred to the Cape and worked under the Comte's direction.[9] During his employment with the Cape Colony government, Hutchins worked in both the indigenous forests of the Knysna region and the plantations of the Western Cape. It is claimed that he provided a draft for the 1888 Cape Forest Act basing it on the Madras Forest Act of 1882. Hutchins is best known, however, for his experimental work in introducing Mexican and Caribbean pine species to South Africa.[10]

Hutchins worked for the government of the Cape for twenty-four years, retiring in 1906, "somewhat aggrieved" that Joseph Storr Lister was chosen as the Colony's first Chief Conservator over himself.[11] After his "retirement" Hutchins was employed by the British Colonial Office to survey the forests of Kenya and Cyprus. In 1914 he accompanied the British Association for the Advancement of Science on a trip to Australia.

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9. King, "Historical Sketch,"; Lister, "Joseph Lister,": 10-18.

10. King, "Historical Sketch,": 7, 9; Hutchins, "Forestry in South Africa", 399; J.D.M. Keet, "Historical Review of the Development of Forestry in South Africa," (South Africa, Department of the Environment, 1984, Mimeographed), 168-69, 206.

11. King, "Historical Sketch,": 10. Lister was not only born in the Cape but had been a civil servant for some five years longer than Hutchins.

Subsequently, he was asked to prepare a report on forestry conditions in Western Australia and make recommendations as to future government policy. This consultancy was extended to cover all the states of Australia and Hutchins' report was published in 1916. Hutchins report is described by Carron as being "candid and trenchant" and "heavily subjective" but it certainly was effective.[12] It was followed in all of the Australian States by legislation significantly increasing the powers of professional foresters to control forest activities and institute management techniques.

While still in Australia, Hutchins was invited to survey New Zealand's forests.[13] His report on New Zealand changed government policy towards the indigenous forests of the islands as well as suggesting a role for plantations of introduced species. Interestingly, before he started this work, Hutchins considered the indigenous forests of New Zealand to be similar to those of South Africa. He was convinced that both were slow growing and had difficulties reproducing themselves outside of their particular environment. He considered, however, that State forest employees were more stable as settlers than farmers. In addition, he pointed out that they had a higher cash income than dairy farmers and, in their "model hamlets," avoided the isolation of the homesteader.[14]

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12. L.T. Carron, A History of Forestry in Australia (Canberra: Australian National University Press, 1985), 64-5, 144-45. See also: David E. Hutchins, A Discussion of Australian Forestry (Perth: Government Printer, 1916).

13. Micheal M. Roche, Forest Policy in New Zealand: An Historical Geography (Palmerston North: Dunmore Press, 1987), 105-6.

14. Ibid, 105-9. I am indebted to M.M. Roche for pointing this out to me.

The second forester brought to South Africa by the Comte was C.E. Lane Poole. Born in England in 1885, Lane Poole also studied forestry at Nancy. Upon graduation, he accepted a position as a Forest Officer in the Cape forestry service. In the Cape, he worked under Hutchins and had been promoted to District Forest Officer by the time Hutchins left in 1906. At this point, Lane Poole also resigned from the Cape civil service, transferring his allegiance to the British Colony of Sierra Leone. As a result of Hutchins' report on forestry conditions in Australia, Lane Poole was offered the position of Inspector General of the Forests of Western Australia. He accepted the job in March, 1916 and held it until October, 1922. Lane Poole left for the simple reason that the government of the State was not prepared to back-up his demand for legislation enabling their forester to control the activities of loggers. A major reason for the reluctance of the politicians to take action was populist concern that potential agricultural land would be reserved for forestry.[15]

Following his resignation, Lane Poole was hired by Australia's Commonwealth government to report on the forest resources of Papua (1922) and the mandated territories of New Guinea (1923). In 1924, he was offered the position of "Forestry Adviser" to the Commonwealth government. His first job was to report on the forestry situation in the remaining land under the control of the Commonwealth, including the pinery on Norfolk Island. Lane Poole then moved on to found a Forestry Bureau in the federal service, a task he completed in 1927. Subsequently, he headed the Bureau until 1944 coincidentally holding the position

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15. Carron, History of Forestry in Australia, 144-5.

of Principal of the forestry school at the Australian National University.[16]

Besides the direct input from foresters such as Lane Poole and Hutchins, the results of research were shared between Australia, New Zealand and South Africa. For instance, Carron reports that the work of two South African scientists, I.J. Craib and A.J. O'Connor on Australian species grown in South Africa were used when the same species were cultivated in Queensland.[17]

The three countries also shared, to differing degrees, in the conflict over the utility of indigenous as compared to imported tree species. This is a peculiar but well known manifestation of ecological imperialism. Basically, some portion of the biota indigenous to the new land is judged as being unsuitable for European use and the decision made, often by government, to replace it with imported stock. In New Zealand, public opinion held that the indigenous tree species were unsuitable for artificial regeneration and did not grow as fast as imported species. As, by the 1890s, the native forests patently were not able to supply the timber needs of the growing nation, logs and lumber were imported from the West Coast of Canada until such time as plantations were able to fill the gap.[18]

Imported logs were expensive, however, and drove the price of lumber upwards. In addition, the New Zealand market was traditionally supplied with wood from Canada in a very random

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16. Ibid, 244-54.

17. Ibid, 117.

18. Roche, Forest Policy, 123; R. Peter Gillis and Thomas R. Roach, Lost Initiatives: Canada's Forest Industries, Forest Policy and Forest Conservation (New York: Greenwood Press, 1986), 134.

fashion. That is, mill-owners in British Columbia tended to send lumber to New Zealand, as well as Australia and South Africa, only when they had a surplus ship load which they had failed to sell on the local market. With the boom in demand for Douglas fir lumber in prairie Canada at the end of the nineteenth and first decade of the twentieth centuries, New Zealand found that this source of lumber dried up, a situation which was exacerbated by the earthquake and fire which destroyed the city of San Francisco in April, 1906.[19] These concerns culminated in a Royal Commission on Forestry which reported in 1913. This Commission strongly advocated the speedy conversion of the indigenous forests to plantations of introduced exotics, especially Monterey pine.[20]

The famine of imported and local timber that occurred prior to the First World War was worsened by the War itself. The chronic shortage of shipping in the Pacific, during this period, removed the possibility of importing supplies from North America just as it did in South Africa. The shortage occurred even though there was actually a glut of timber on the West Coast of North America at this time.[21] These shortages led to the realization that the indigenous forests of New Zealand were an irreplaceable

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19. Gillis and Roach, Lost Initiatives, 133-35. See also: Great Britain, Dominions Royal Commission on the Natural Resources, Trade and Legislation of Certain Portions of His Majesty's Dominions, Minutes of Evidence Taken in the Central and Western Provinces of Canada in 1916 Part II, 4, Forests (London: H.M.S.O., 1917), 186-95.

20. Roche, Forest Policy,101-4.

21. Gillis and Roach, Lost Initiatives, 150-51. Of course the trade rebounded at the end of the War, see: M.M. Roche, "New Zealand timber for the New Zealanders.' Regulatory Controls and the Dislocation of the Pacific Rim Timber Trade in the 1920s and 1930s," in Proceedings, 14th New Zealand Geography Conference (Palmerston North: Massey University, 1987), 195-203.

national asset. As a result, the Royal Commission's proposal that the indigenous forests should be replaced with plantations was severely criticized and reappraised. To carry out the reappraisal, the New Zealand government invited David Hutchins, just then completing a survey of the situation in Australia, to visit.

Hutchins severely criticized the Commission's Report on the grounds that the growth rate of the indigenous trees was much greater than he and others had believed, that destroying the indigenous forest was too great a price to pay in terms of environmental disturbance and that the imported trees, with few exceptions, were adjuncts rather than replacements for local species. Instead, he advocated that indigenous forests be managed intensively by shelterwood techniques which would encourage natural regeneration and allow steady, nearly continuous harvesting. He proposed that plantation forestry with introduced species be restricted to unforested lands and the reclamation of uneconomic farmlands which should never have been cleared in the first place.[22]

The efforts of David Hutchins and the newly formed New Zealand Forestry League, modelled on the Australian Forestry League, culminated in 1919 in major changes in the administration of New Zealand's Crown lands. Henceforward, the onus was on the Department of Lands to justify the opening of forested land for settlement purposes.[23] At the same time, there was a shift in emphasis. No longer was the future of forestry in New Zealand

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22. Roche, Forest Policy, 105-9.

23. Roche, Forest Policy, 112-21.

seen to be solely concerned with the planting and management of artificial forests of exotics. Now it was realized that the indigenous trees were as productive as imported species and, if managed properly, were easily coaxed into reproducing themselves.[24]

In South Africa, this controversy appeared as a muted debate. During the 1920s, T.R. Sim, the leading botanist in the Union, stated, "No species indigenous to South Africa can be recommended for commercial culture since in every case there are exotic species, commercially more profitable, suitable for the same site."[25] This attitude was opposed by J.D. Schonken who, in an article attacking Sim, pointed out that the native trees of South Africa were adapted to the local environment. Schonken suggested that this was especially true of the veld and semi-desert areas and that the Department of Forestry should be studying these trees instead of emphasizing plantations of exotics. While David Hutchins was able to save the indigenous forests of New Zealand, nobody was able to alter the opinion of South Africa's foresters towards the indigenous forests. Accordingly to the present day, South Africa's plantations are of imported species although it is true that much of the seed is now naturalized.[26]

The above discussion shows that commercial forestry as practiced in the British Empire is an importation. Furthermore,

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24. Ibid.

25. T.R. Sim, "Cultivated Timber Trees 1," South African Journal of Industry 3, 9(September, 1920):783-93.

26. J.D.Schonken, "Our Indigenous Trees and Shrubs: Their Need as Compared With Exotics," South African Journal of Industry 5, 10(October, 1922): 454-9.