

LAND POLICY AND LAND SETTLEMENT IN NEW ZEALAND

An Analysis of Land Policy Goals and an
Evaluation of their Effect

by

John R. Fairweather

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PREFACE

The structure of farms and the rural communities associated with farming are important elements in the lives of many New Zealanders. Furthermore, this structure is constantly changing as a result of pressures and opportunities from within and without. In this research report Dr Fairweather brings us up to date on one important component of this mosaic - farm size. This work is designed to examine the relationship between farm size and the sequence of rural land policies over many decades. This forms the basis for more extensive structural research at the rural level which has been initiated in the Agricultural Economics Research Unit.

Dr R G Lattimore
Director

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SUMMARY

The main stated objective of government land policy has been to support closer settlement of farmland. Closer settlement has been justified in terms of economic and social benefits, and in general, has had a considerable impact on the evolving structure of agriculture in the past. However, since 1956 the impact of land policy, has declined as direct intervention gave way to a policing role which attempts to prevent undue aggregation of land.

Observations of both land policies and changes in the structure of agriculture show that the former tend to follow changes in the latter rather than produce them. Also, land policies have facilitated changes in production by meeting some of the costs involved.

Recent land policies have not been compatible with production policies. Closer settlement could not be pursued while farms rapidly increased in size to 1971. The present trend to smallholding suggests that production policies and closer settlement policies could be made compatible if it were found that viable closer settlement could be linked to the trend to intensified production on smaller farms.

CHAPTER 1

INTRODUCTION

Land policy can refer to land use policies, where the concern is with how land is used, and, more properly, to land policies per se where the concern is with tenure, farm size, land ownership and related topics. The latter concern is the focus of this report. Land policy is taken to mean those governmental plans which include how land is obtained by the State initially, how it is sold or distributed (i.e. alienated), who should obtain land, how much land should be held by individual landowners, how does the State benefit from the alienation process, and how is land ownership and distribution related to the national economy and society. One important consequence of land policy is its effect on the structure of agriculture, i.e., the number, size and distributional characteristics of farms. Land policies relate to how the State "uses" its land resource, where "use" is understood in general terms rather than the specific issue of what system of production is undertaken on any land. Government bureaucracies which have any concern with land have to deal, either explicitly or implicitly, with land policy issues as defined above.

The objective of this research report is to describe land policy goals from the time of earliest settlement up to the present. I attempt to show what it was that the policies tried to achieve and how well they achieved their objectives. The overall aim is to make observations of both land policy and structural changes in agriculture in order to discern any principles which underlie land policy generally. Understanding of these principles is important for any future land legislation or land policy discussions. In addition, this research report provides an important background to its sequel, a report on contemporary farm enlargement in New Zealand which focuses on post-1971 structural changes.

The present research report provides data which support the following policy conclusion. The current land policy situation is one in which any government faces problems which have been growing since earlier this century. Between 1951 and 1971 there was a trend to increased size of farm, presumably because of the prevailing economic factors. Government policies have always sought to foster economic development and in recent decades this appears to have involved supporting farm enlargement. But farm size increases are not compatible with the policy of closer settlement, which the present law clearly sets out to foster. The present law reflects the contradiction in policies because its obvious intent is matched by an equally obvious failure in its application. With the great difficulty of bringing new land into production, governments must persist with the present tensions or foster intensification on existing land, where this is feasible, and thereby bring into concordance the goals of improving agricultural production and fostering closer settlement.

CHAPTER 2

LAND POLICY IN NEW ZEALAND

2.1 Introduction

It is necessary to review the earliest land policies and land legislation because later policies have been built upon these. A complete understanding of contemporary legislation thus requires an appreciation of preceding legislation. To this end I begin with a brief account of early colonial legislation concerning the issue of how the State gained control over land settlement.

2.2 Acquisition and Alienation of Crown Land

From colonial settlement to 1890, land policy initially was directed to obtaining land and then using land to foster settlement (MacLachlan, 1966). After the Treaty of Waitangi in 1840, the Crown gained the legal right to all land, and pre-1840 purchases by Europeans were declared void subject to validation in terms of Government policy and the terms of the Treaty (Gardner, 1981:59). (For a more detailed account of the racial conflicts surrounding the Treaty of Waitangi, see Sorrenson, 1981.) Having gained control over land sales the State was reluctant to begin settlement immediately. Although land was the drawcard and basis of the Wakefieldian colonies, the general intent of the Crown in the 1840 to 1853 period was to restrict disposal of Crown lands (Jourdain, 1925:19). Crown land was to be sold at a uniform price in order to generate a "buoyant land revenue" (Gardner, 1981:59). Further, the organisers of regional colonial settlement confined land sales to restricted areas in line with the high price of land idea in an attempt to restrict land ownership and maintain a landless labour force. At this time unsold Crown land was called "waste" lands of the Crown.

The Crown Lands Ordinance (New Ulster) of 1849 which provided for the issue of depasturing licences in the North Island, and in 1851 this law was extended to the South Island. This change, along with changes in regional land laws, provided a decisive change in land policy away from restriction of land settlement. The lack of a viable economic base in the confined regional colonies led to a recognition of the importance of a pastoral economy on the former "waste" land of the Crown. Provincial governments now leased land to runholders and from 1852 to the mid 1860's leases were taken up for all the available pastoral land. Provincial governments maintained a measure of control over land by leasing although there always was provision for outright purchase of land. The general land policy goal after 1858 was to make land available to both runholders and settlers.

After the abolition of the provincial governments in 1876, the central government continued with its land settlement goal but introduced a variety of options for settlers to lease land rather than purchase it. These leases were of a small scale when compared to the

large-scale runholders' leases. Leaseholding represented a move by the State to maintain a degree of control of land ownership, in particular to maintaining control over any future increases in land value. Although the State did not obtain cash on sale it did retain land rental and the potential for continued rental income.

In line with the leasing policy, the government introduced the Land Act (1877) which repealed all prior statutes and introduced a nationwide policy of auctioning lands under the deferred payment tenure. With deferred payment, leasehold settlers (or selectors as they were known) could obtain 320 acres of rural land with a deposit of 1/20 the price, with the total price payable in half-yearly instalments over ten years. This new form of tenure included improvement conditions which had to be fulfilled within six years, and it required that applicants reside on the land. At expiry of the deferred payment lease, a Crown grant for freehold title was available.

Amendments to the Land Act (1877) between 1882 and 1884 introduced the perpetual lease. Land was offered at a rent of five percent per annum on its cash value to the highest tenderer. The offer was not available to persons owning more than 640 acres, and only one lease per person was allowed. The lease ran for 30 years with a right of renewal for a further 25 years, and it permitted the selector to take up the freehold after ten years. Like the deferred payment lease, the perpetual lease involved improvement and residential conditions. The perpetual lease was abolished in 1892 after 4,525 selectors took up 1,327,632 acres (Jourdain, 1925:28). The Land Act (1885) added the small grazing run, whereby pastoral land not exceeding 5,000 acres was set aside for a 21 year lease. Owners or occupiers of land could not apply for a small grazing run if they already owned over 1,000 acres.

Provisions for freeholding were introduced with this early leasehold legislation. An amendment in 1887 eased the conditions of settlement by providing for the uptake of freehold for holders of deferred payment leases or perpetual leases, once the improvement conditions were fulfilled. However, these freehold provisions aside, the main aim of general government legislation at this time was the provision of a variety of leasehold tenures with the intention of assisting small-scale farmers to settle on the land. In the words of Jourdain (1925:23) the goal of government was to introduce leasehold tenures in order to settle "men of small means upon holdings of land sufficient in size to afford them a livelihood, but not large enough to constitute aggregation of land to an undesirable extent".

However, State leaseholding did not go on uncontested. There was a vigorous debate over the respective merits of freeholding versus leaseholding Crown land, and there were powerful political pressures for private ownership of land. At the basis of this antagonism was the question of who should gain the "unearned increment" in the value of land (i.e., that increase in land value due to inflation rather than an increase based on improved productivity). An outcome of this debate was the Land Act (1892) with a lease in perpetuity, providing a 999 year lease which gave security of 'ownership' to leaseholders and rents to the State. Also in the Land Act (1892) was a change in the deferred payment lease which provided for the right to purchase the land after ten years (as in the perpetual lease). Further, the 1892 Act included

an option system whereby selectors could take up land either by purchase, occupation with right of purchase, or by lease in perpetuity. The limit of 640 acres and the improvement and residence conditions still applied.

From 1840 to 1890, the State had succeeded in obtaining land and then, after a hesitant start, succeeded in alienating much of that land, and almost all of the good quality land to private ownership or favourable Crown leases. The State undertook alienation of Crown land to achieve at least two goals: to obtain revenue, and to foster settlement and economic development. The first goal was important to both provincial governments and central government because land sales revenue was 14 percent of total State revenue, second behind customs duties at 44 percent in 1871 (New Zealand Statistics, 1872: Table 32). Land was obtained from the Maoris at four pennies per acre and sold for one pound sterling per acre (MacDonald, 1952:196) and other lands were sold for two or three pounds per acre (Gardner, 1981:175). The second goal was important to a colonial economy founded on pastoralism. The State wanted to get land under production by facilitating alienation to settlers motivated to make their farms economically successful. The second goal was related to the first because an expanding economy provided increased customs revenue. Thus, land settlement provided State revenue and facilitated the establishment of a pastoral economy.

The leaseholds were intended to provide an entry into farming for small-scale farmers with limited capital. However, from 1870 to 1890 large-scale estates on which large numbers of workers were employed, were the main contributor to the growing colonial export-based economy (Fairweather, 1982:105). Although the land was alienated, there was a high concentration of land ownership with a small number of people owning a large area of land. While small farms were numerically strong, they did not play a significant role and their contribution was important only in the domestic economy of subsistence agriculture. The reality of estate farming was in sharp contradiction to a government policy of providing assistance to immigrants and settlers to own their own farms. By 1890, political changes saw the Liberal Party election success on a platform which included a strong rhetorical attack on large-scale land owners. From 1890 land policy began to emphasise in much stronger terms the idea of "closer settlement".

2.3 Closer Settlement Policies

Closer settlement refers to those land policies which seek to increase the number of farmers. This objective can be obtained by either subdividing and intensifying the use of existing land, or by increasing the area of occupied land. In practice the term has not been clearly defined and has generally meant increasing the number of farmers by whatever means becomes available. The main aim of closer settlement has always been to improve export production and to provide farming opportunities for landless farmers. The State has undertaken many of the establishment costs of agricultural production on the understanding that the assistance was a viable investment which would yield good returns once production improved. The closer settlement policy has attempted to address social problems as well. Thus closer

settlement has been equated with production, opportunity, and the ideal rural society. Presumably, if the pool of landless farmers were to disappear then closer settlement policies would be unworkable and probably uncalled for.

The State promoted the goal of closer settlement in its land policy for three reasons. First, the Liberal Party capitalised on the large proportion of recently enfranchised men, many of whom were interested in small-scale farming rather than working on large-scale estates. A well-emphasised closer settlement policy thus maintained support for the Party and provided an "enemy" on which to heap the blame for many economic and social problems.

Second, there was a belief that small farms provided better working conditions than on estates. The latter involved large gangs of workers with alleged deterioration of home life and morale (Hepburn, 1982). Small-scale farming was equated with an ideal and desirable life-style. As Fairburn (1975:10-11) puts it when discussing the origins of New Zealand attitudes to rural and urban life:

From the 1880's to the 1930's, state promotion of closer land settlement was selected as the principle instrument in the attainment of a country of small family farms. It was an instrument determined by the merging of two of the arcadian visions: that of the lower-class rural immigrant for a yeomanly arcadia, from which he had been excluded by unemployment and falling wages in towns, the very largeness of his numbers, land aggregation and inflated land values; and that of Rolleston, Ballance, McKenzie and other middleclass heirs of the Dickensian vision of land settlement in the antipodes for the underprivileged.

Thus, policies which gave support to the "man of small means" meshed neatly into the prevailing attitudes which emphasised equality and democracy.

Third, the State undertook the development of the North Island bushland by fostering small farm settlement in order to expand the pastoral economy and to challenge the political and economic power of estate-owners in the South Island (Fairweather, 1982:141). Aside from the strictly political motivation for a closer settlement policy, an important motivation was the need to intensify development either by breaking in the North Island bush or by improving production on the occupied land. Clearly, any production from North Island bush land was of benefit to the colonial economy. Although the question of the relative efficiencies of estate versus small farm production remains unresolved, there is evidence that small-scale farms were seen as economically desirable (Fairweather, 1982:152). In line with this view, the Department of Agriculture was formed in the mid 1880's in order to foster husbandry on small farms and became an independent department in 1893. Lincoln College was established in 1880 advocating smaller-scale, mixed farming, with cultivation and the use of fertilisers as superior to management which merely "stripped" the soil. The development of systematic and integrated intensive management techniques would seem to be most compatible with small-scale farming

rather than compatible with estate production. The latter form of production tended to increase profitability by increasing the size of operations. By supporting small-scale farms and related management techniques, the State linked the closer settlement policy to improved productivity and the development of the economy in general.

The legislation which best illustrate the State's concern for closer settlement was the Land for Settlements Act (1894). This Act authorised the appointment of a Land Purchase Board which purchased land and offered it for selection under lease in perpetuity in 320 acre lots. Land could be obtained by compulsory purchase with compensation awarded by a Compensation Court. In 1907 the Act was amended to repeal the lease in perpetuity and introduce the renewable lease (with perpetual right of renewal) and to lower the rent from five percent to four and-one-half percent. Other Liberal legislation involved formation of national endowment lands for the preservation of Crown lands, financial support to groups wishing to provide estates for subdivisions, and financial support to settlers themselves.

From 1894 to 1912 estate purchase and subdivision into small farms, either leased or purchased, was the main manifestation of closer settlement policy. However, following this period there was a change to the provision of freeholding of the small-scale farms already settled. Under the Massey Government (1912 to 1924) the land laws were amended many times to make it easier for small-scale farm settlers to obtain freehold title to their land. The right of Crown tenants to acquire fee-simple by paying the purchase price, either in cash or in deferred payments at the option of the purchaser, was extended to owners of leases in perpetuity, renewable leases, perpetual leases, and owners of other licences and leases (Jourdain, 1925:41). Lessees in perpetuity had only to pay the original capital value plus one percent for every year the lease had run (McDonald, 1952:210). In addition, the provisions affecting the occupation of pastoral and rural lands were liberalised: rents could be postponed, the area of a run could be increased, personal residence could be dispensed with after ten years, and different types of lease could be exchanged.

By 1913, the legislation began to show concern for "aggregation" of farm land. Part III of the 1912 Land Laws Amendment Act provided for agreement between the Minister of Lands and a landowner to subdivide land for disposal by public tender under lease with right of purchase or outright sale. The 1913 amendments provided for the Minister to notify a landowner in writing that his land was required for settlement. The owner, within six months, had to elect private subdivision, negotiation or compulsory purchase under the conditions of the Land for Settlement Act. Part VII of the 1913 amendments provided for compulsory purchase of aggregated land where this was contrary to the public interest. In the words of the Yearbook (N.Z.O.Y.B., 1925:388) the Land Laws Amendment Acts of 1912 and 1913 "went further in the direction of encouraging or compelling subdivision of land held in large areas".

The State pursued its closer settlement policy throughout the twentieth century but with modifications to the policy depending on the events of the time. For example, after World War I the policy of general land settlement was replaced by settlement of special groups,

in this case, returned servicemen. Returned servicemen settlement represents an important aspect of the social reasons for closer settlement. Not only did the State seek to achieve its usual closer settlement objectives, but it also had an additional obligation of rewarding men who served in the war. The Discharged Soldiers Settlement Act (1915) provided for soldier settlers to take up Crown and private land by cash purchase, right of purchase, renewable lease or deferred payment. Servicemen settlement occurred on a large scale with 9,500 men involved, but according to MacLachlan (1966:29) it was extremely unprofitable because of the high cost of land and the inexperience of many settlers.

During the 1930's Depression, land policy pursued the closer settlement goal by assisting the unemployed to enter agriculture and by providing support for farmers generally. An example of the latter goal was the Land Laws Amendment Act (1929) which revised the 1924 Land Act by providing advances to Crown tenants and assistance to settlers (1,250 pounds each with repayments at six percent as improvements were made). Legislation to foster settlement and relieve unemployment was introduced with the Small Farms (Relief of Unemployment) Act (1932 to 1933). The Lands and Survey Department was to acquire land by purchase, lease with right of purchase, or by resumption of Crown lands, and the land obtained was to be leased for 33 years with perpetual right of renewal. The legislation authorised compulsory acquisition of lands not adequately used. Typically, the units of settlement land were small holdings of from five to ten acres which provided a partial livelihood. By March 1933, 488 persons took land at a cost of 142,000 pounds (N.Z.O.Y.B., 1936:652). The scheme also employed 1,200 men in developing farms, mostly for dairying.

Closer settlement for returned servicemen was supplemented by a new policy of developing Crown land for closer settlement. Before the Land Laws Amendment Act (1929) there was no provision for the State to develop Crown Land. With the 1929 Act, a Lands Development Board was established to direct the new development operations. A possible cause of the change to a Crown land development policy may have been the experience of purchasing private land at great expense for returned servicemen after World War I. Recognising the cost involved in purchasing private land, the Lands Development Board may have viewed Crown land development as a more viable option. The land development policy fitted in with the closer settlement policy and provided farming opportunities for small-scale family farmers.

Closer settlement continued after World War II with a successful soldier settlement programme. The Small Farms Amendment Act (1940) added discharged soldiers to the provisions of the legislation and provided powers for the Crown to take land for settlement (N.Z.O.Y.B., 1944:198). The Servicemen's Settlement and Land Sales Act (1943) introduced control of land sales by a Land Sales Court which had to give consent to all land transactions. The Court, administered through District Land Sales Committees, was charged with giving favourable consideration to soldier settlement, with preventing undue increases in land prices, and with preventing undue aggregation of land. An amendment in 1944 provided preference for discharged soldiers in ballots, and preference for settlement land.

The closer settlement land policy dominates twentieth century land legislation. While the State also preserved land in national parks, promoted freeholding, and tried to control the price of land, these other goals were overshadowed by the concern with closer settlement. Closer settlement was seen to be most desirable for expanding production and for promoting an ideal social structure of family farm ownership and production -- values which are heard frequently today. The State employed a variety of strategies for achieving closer settlement. These strategies included limitations on the amount of land which could be bought or leased, compulsory or voluntarily negotiated purchase of private land for subdivision, Crown and other land development for settlement by civilian or returned servicemen groups, and providing loans and other financial support to farmers. In general then, the closer settlement goal was pursued vigorously by encouraging the development of smaller-scale farms and by discouraging the perpetuation of larger-scale farms.

2.4 Contemporary Land Policies

The Land Act, 1948 and the Land Settlement Promotion and Land Acquisition Act, 1952 are the two main Acts relevant to government land policy today. The following discussion emphasises some of the detailed provisions of these Acts because they are the basis for current law. However, the fact remains that contemporary land policy still emphasises the closer settlement goal, as the following analysis demonstrates.

The Land Act (1948) continues the general policy of extending freehold to Crown tenants (Evans, 1969:46); it consolidates all acts relating to Crown lands and provides the right of freehold to those tenures not previously covered. Those acts consolidated were: The Land Act (1924), The Land for Settlement Act (1925) and the Small Farms Act (1932-1933). The Discharged Soldiers Settlement Act (1915) and the Servicemen's Settlement and Land Sales Act (1943) with its amendments were repealed. This change lifted completely the controls on the price of land.

The power of the State to purchase land was retained. Before 1948, the purchase of privately-owned land was authorised under three separate acts, namely: the Land for Settlements Act (1925), the Small Farms Act (1932-33) and the Servicemen's Settlement and Land Sales Act (1943). After 1948, powers for land purchasing were included in the Land Act (1948) and the Servicemen's Settlement Act (1950) thus continuing a provision which had its origin in the Land for Settlement Act (1894). Instead of the Land Purchase Board, after 1948 there was the Land Settlement Board which was authorised to purchase private land, or the interest of any lessee or licensee, for settling farmers on any urban, commercial, industrial or pastoral land (N.Z.O.Y.B., 1958:467). There are no powers for compulsory acquisition of land under the 1948 Act.

The Land Act (1948) also empowers the Land Settlement Board to administer, develop, alienate, protect and care for Crown Land. Crown land can be alienated under four different tenures and advances can be made to Crown tenants. In addition, section 175 of the Act contains

provisions to prevent undue aggregation of Crown land. Any person acquiring Crown land must: 1. not already own land the addition to which constitutes, in the opinion of the Board, undue aggregation, and 2. not intend to use the land for speculative or uneconomic purposes. The Board's role is to consider all the circumstances of a given case including the rent in previous transactions, the suitability of the purchaser, the purpose to which the land is to be used, and the area already held by the purchaser. The decision of the Board is final with no right of appeal. The section on undue aggregation does not apply to the acquisition of fee simple under a right of freehold in a lease, nor to the acquisition of a lease or licence by any executor, administrator, trustee or beneficiary under a will or an intestacy, nor to a mortgage of a lease or licence (McVeagh, 1979;332).

The remaining contemporary legislation to be considered is the Land Settlement Promotion and Land Acquisition Act (1952). This act takes over from the Servicemen's Settlement and Land Sales Act (1943) and the Servicemen Settlement Act (1950) and continues the compulsory purchase and control of aggregation theme. The 1952 Act seeks to:

provide for closer settlement of farm land, for the acquisition of farm land that is, or, when subdivided and developed, will be, capable of substantially increased production, to prevent the undue aggregation of farm land, and to require that, for a period of 3 years from the passing of this Act, persons acquiring farm land shall personally reside on and farm the land. (Reprinted Statutes, Volume 3, 1980: 139-186).

The Act is divided into three parts. The first part relates to taking farm land for settlement, the second part to control of sales and leases of farm land to prevent undue aggregation, and the third part to the acquisition of land by overseas corporations and persons who are not New Zealanders (McVeagh, 1979:334). These restrictions on ownership by overseas persons and companies were introduced in 1968. Another later modification to the 1952 Act was to remove the requirement to live on the land acquired (Szakats, 1966a).

With respect to Part 1 of the Act, the Minister of Lands is empowered, on the recommendation of the Land Settlement Board, to take any farmland that is suitable or adaptable for settlement and is, when subdivided and developed, capable of substantially increased production (McVeagh, 1979:335). The owner can retain an area equivalent to two economic units, and if he has children an economic unit for each child. Other land owned is taken into account and a right of objection can be exercised by taking an objection to the Land Valuation Tribunal. Up to 1958, at least, the ministerial power was not used and as Szakats (1966a:321) observes the Crown prefers to negotiate land purchase under section III of the Land Act (1948).

Under part II of the Act the consent of the Land Valuation Tribunal is required for all farm land transactions including the sale or transfer of freehold estate or interest in farmland, and the leasing of any farmland for a term less than three years (McVeagh, 1979;335). These and some other transactions are monitored in order to prevent undue aggregation of farm land. Where the purchaser or lessee does not

own or have any interest in farmland already, the consent of the Tribunal is not required and the land purchaser makes a statutory declaration of their landless status. Land held by a company having fewer than ten shareholders is considered as being held by each of the shareholders (McVeagh 1979;335). Therefore, a member of a land owning company when buying more land must have the transaction evaluated by the Land Valuation Tribunal if the company has less than ten members. Thus, before any legal transaction is entered into it must either be subject to consent of the Land Valuation Tribunal or subject to a statutory declaration of landless status.

The following considerations are to be made by the Land Valuation Tribunal when evaluating a farm land transaction. The principle issue is whether the purchase of farm land will amount to undue aggregation. The Tribunal can consider whether the purchaser's land already held is sufficient to support him and his wife and children in a reasonable manner and in a reasonable standard of comfort. Other considerations include the proposed use of land and whether the acquisition would be in the public interest. The public interest is defined in terms of diversification of land ownership by individuals, in terms of the ability of the purchaser to develop the land, in terms of the production increase, and in terms of the interests of the community generally.

Case law shows the direction of interpretation and operation of the 1952 Act (McVeagh, 1979;336). For example, it has been argued that all relevant factors must be drawn into the consideration of each case, and aggregation refers to those who control but may not necessarily own land. In some cases, considerable aggregation can be justified by the benefits from the change in land use, especially where the property purchased cannot support a farm family. Further, prior to 1968 a landless person could purchase as much separately-owned farmland as he wanted (O'Keefe, 1968;36) but a change in 1968 introduced new restraints which prevented a landless man from buying many different parcels at one time, making a statutory declaration, and avoiding the scrutiny of the Tribunal (O'Keefe, 1969;146). Other changes in 1968 closed some other loopholes.

Contemporary land policy has continued the closer settlement policy. However, both of the principle Acts have given a large emphasis to a policing role with respect to land aggregation. Both Acts set up procedures which explicitly attempt to limit land aggregation. Contemporary legislation thus gives greater emphasis to restrictive policies rather than attempting to achieve closer settlement objectives with positive supports and incentives.

For the last 100 years the State has given prominence to a closer settlement policy. It seems reasonable to accept that the State adopts the goal of closer settlement because this is seen as most compatible with the goals of improving agricultural production and maintaining farmer efficiency in production. The generally accepted record of increasing productivity suggests that small farms, i.e. not large-scale estates, have either wholly, or at least in part, directly contributed to productivity increases. In agriculture today the idea of family farming, one-man one-farm, and striving to improve productivity are important and intimately related policies. Also, the

State has used its closer settlement policies to address social problems such as rehabilitating returned servicemen and reducing unemployment, while at the same time the State has maintained its belief in the family as the ideal unit of production for a modern, efficient agriculture.

Finally, it must be emphasised that the above account of land policy gives no attention to the question of how effective the policies have been. It is only with consideration of this question that land policy can be properly appraised, for it is clear that political emphasis of a given policy is not an accurate indicator of its actual effectiveness.

CHAPTER 3

THE EFFECTIVENESS OF LAND POLICY

3.1 Introduction

The main theme of twentieth century land legislation has been a concern with closer settlement. Land policy has always reflected the importance of improving efficiency of production as well as addressing social problems and maintaining a viable rural social structure. Not surprisingly, policies to promote farm enlargement have been adopted where small farm size has been perceived as a source of inefficiency. For example, the State Advances Corporation provided loan money for farm enlargements to a significant degree up to 1974 (Cole, 1979: 22). Thus, governments have pursued closer settlement policies as part of a concern with efficiency of production, in addition to closer settlement for its own sake. The following discussion provides an evaluation of the effectiveness of past land policies and also provides a background to understanding present issues. An understanding of the historical aspects of land policy is important because it is relevant to the task of discussing possible new land policies.

3.2 Estate Purchases and Land Settlement

Table 1 shows that from 1898 to 1941 the State had purchased 2,172,296 acres or 756 private estates for 14.1 million pounds. By 1941, 6,224 settlers had obtained land on farms which were on average 277 acres. The estate settlement farms were about 100 acres smaller than the average size of farm overall, and generally they amounted to nine percent, at the most, of the total number of non-CPL farms (that is, all farms but excluding Crown pastoral leases and licences and small grazing runs). The 6,224 farms made available to 1941 derived from 756 purchased estates, so the net effect was to "create" 5,468 farms. Thus, estate purchase and subdivision appears to have contributed to a general pattern of subdivision, and the policy would have contributed to holding down the slowly increasing average size of farm.

However, State sponsored subdivisions were only part of the subdivision process and it would be a mistake to attach too much significance to this land reform policy, as the following data suggest. From 1898 to 1941 there was an increase of 25,614 farms (see Table 3), but only 5,468 or 21 percent of these were from the net effect of subdivided estates. Further, of the decline in total estate acreage between 1892 and 1910, only 26 percent was accounted for by State appropriation (Gould, 1970:11) leaving an extensive amount of private subdivision of estates to account for the decline. In fact, this last point shows that the State appropriation for subdivision policy followed, rather than spearheaded, a general tendency for subdivision. As Gould emphasises, subdivision of land occurred from 1881 when the average size of farm began to decrease (see Figure 1) well before the 1894 legislation. Further, Gould suggests that the extension of the

TABLE 1

Area (in acres) and Number of Estates Involved in Land Settlement

Purchases, and Returned Servicemen Settlement, 1898 to 1941

	Estates Offered for the Year	Estates Purchased for the Year	Cumulative Total Estates Purchased	Cumulative Total Estate Selections with Average Farm Size	Proportion of Non-CPL Land (%)	Average Farm Size (Non-CPL)	Total Cost Estates Purchased (Pounds)	Net Gain In Number of Farms from Estates	Ex Servicemen Advances for Land (Pounds)	Total Area Proclaimed
1898	538,142 70	36,513 12	154,624 49				668,531			
1901	315,612 73	9,511 29	395,483 91	318,392 1,769 $\bar{X} = 180$	1 3	365	1,888,723	1,678		
1906	911,118 311	269,399 22	985,623	754,887 3,556 $\bar{X} = 212$	3 5	353	4,122,648			
1911	350,708 81	14,399 14	1,252,495 209	1,252,495 4,834 $\bar{X} = 259$	5 7	374	5,566,588	4,625		
1916	277,549 150	15,440	1,556,018 288	1,506,417 5,504 $\bar{X} = 274$	5 7	371	7,393,801	5,216		95,598 503
1921	296,482 204	57,927	1,970,961 611	1,762,771 6,752 $\bar{X} = 261$	6 8	372	12,712,026	6,141	16,256,786 20,293	1,321,091 6,957
1926	123,310 49	2,695	1,984,718 635	1,809,799 7,122 $\bar{X} = 254$	6 8	371	13,012,896	6,487	22,490,303 22,483	1,419,817 7,477 $\bar{X} = 190$
1931	427,404 254	61,125	2,107,033 698	1,872,097 7,147 $\bar{X} = 262$	6 9	382	13,922,665	6,449	23,303,137 22,994	1,441,618 7,592
1936	23,152 10	-	2,127,718 726	1,854,150 6,987 $\bar{X} = 265$	6 8	384	13,922,625	6,261	23,637,008 22,812	1,452,829 7,650
1941	249,568 103	31,008 21	2,172,296 756	1,724,941 6,224 $\bar{X} = 277$	5 7	386	14,102,924	5,468		1,455,386 7,651

Notes: 1. Non-CPL land refers to all land minus Crown pastoral leases and small grazing runs
 2. Area and number of estates purchased in 1901 is the recommended number.
 3. The number of farms settled by returned servicemen is estimated for all years except 1926, using the 1926 figure

Sources: N.Z.O.Y.B.

occupied area between 1874 and 1911 was more important than estate subdivision in providing for the increase in farm numbers.

In general terms Table 1 shows that most estate subdivisions had been undertaken by 1921 when 6,752 selections had occurred with a net increase in farm numbers of 6,141. The increase in the total number of farms between 1898 and 1921 was 23,317 of which the net increase of 6,141 was 26 percent. From 1921 to 1931 there was only a slight increase in the number of estate subdivision farms settled, and there appears to be a revision of the cumulative total number of selections by 1936, when a slight decrease in number was recorded.

3.3 Returned Servicemen Settlement

In addition to estate purchases for closer settlement as authorised by the Lands for Settlement Act (1894) there were other lands purchased for returned servicemen settlement under the Discharged Soldier Settlement Act (1915). Table 1 also shows that the total area proclaimed under the Discharged Soldiers Settlement Act (1915) up to 1941 was 1,455,386 acres. Something over 7,477 returned servicemen were settled on this land (the figures given in Table 1 are estimates for all years except 1926). In 1926, the average size of farm was 190 acres, considerably smaller than both the lands for settlement farm size and the average size of farm for all non-CPL land. The small size may have contributed most significantly to the economic difficulties experienced by some returned servicemen settlers.

If we take the 1926 figure of 7,477 as a conservative measure of the total number of returned servicemen settlers, then the 7,477 represents 82 percent of the increase in the total number of farms between 1916 and 1941. At present it is not possible to estimate the net effect of settlement for returned servicemen because the number of farms purchased or otherwise obtained for subdivision is not given in the New Zealand Official Yearbooks. Therefore the present method overestimates the effect of returned servicemen settlement. Over the 1916 to 1941 period there was a net increase of 252 farmers settled under the lands for settlement scheme. Thus, by 1916 most of the government land settlement was by way of returned servicemen settlement, which, when combined with ordinary settlement, accounted cemen settlement must also recognise that advances for land purchases would indirectly foster closer settlement. To 1941, there were 23.6 million pounds provided in this manner.

With respect to the returned servicemen settlement after 1941, Table 2 shows that by 1956 an estimated 3,378 disposals had been made. Table 2 shows the cumulative effect of Land Settlement Board activity since 1941. The land was obtained by purchase, compulsory acquisition (seldom used), or from Crown land either already occupied or unoccupied. By 1956 the greater proportion (73 percent) of the total disposals had been made, and the disposals were of roughly similar size to the average size of farm. Apparently, the Land Settlement Board learned from the experience of earlier settlements and endeavoured to

TABLE 2

Development and SettlementOperations of the Land Settlement Board, 1948 to 1981

	Cumulative Area Purchased by Voluntary Negotiation	Cumulative Area Purchased Compulsoraly	Cumulative Crown Land Made Available	Cumulative Total Area Acquired	Cumulative Disposals	Average Size of Disposed Farms	Proportion of Non-CPL Land (%)	Average Size Non-CPL Land	Rehabilitation Loans for Farm Purchase (Pounds)
1948	451,391	159,705	29,692	640,788	304,478 939	324	1 1	382	19,237,000 4,716
1951	868,941	262,156	47,993	1,179,090	784,228 1,980	396	2 2	373	34,779,712 7,673
1956	1,216,982	298,862	617,844	2,133,688	1,363,082 3,378	403	4 4	397	61,947,219 11,058
1961	1,463,399	298,862	797,572	2,559,833	1,586,448 3,798	418	5 5	482	73,611,472 11,948
1966	1,726,659	298,862	855,565	2,881,086	1,770,491 4,161	426	5 6	505	
(1972)	1,882,487	298,862	921,907	3,103,256	1,937,475 4,327	448	6 7	531	
1976	1,974,716	298,862	951,568	3,225,146	2,028,955 4,391	462	6 7	527	
1981	1,986,701	298,862	900,087	3,185,650	2,211,333 4,638	477	7 7	495	

- Notes: 1. Areas in acres
 2. Change to civilian policy in 1961
 3. 874,043 acres on hand in 1984 and an estimated 864 units to be settled

Sources: Annual Report of the Department of Lands and Survey

settle men on farms closer to what was the average farm size. The 1,980 disposals from 1941 to 1951 were 51 percent of the 3,857 increase in farm numbers over the same period. After 1961 the rate of settlement slowed down and in recent years there has been, on average, about 52 farms settled per year (Ower 1984, Table 1). The disposed farms amount to seven percent of all farms in 1981. As before, loans to assist returned servicemen purchase farms were available after 1941 and to 1961 there were 11,948 loans made totalling 73.6 million pounds.

In general, post-1941 land development and settlement was most numerous up to 1956. Since 1961 the total number of all farms declined and it is difficult to quantify the contribution of land development and land settlement policy. Further, the number of farms bought for development is not known, preventing any estimate of the net gain in farm numbers. It is possible that the multiplier effect of this later policy was lower than for the earlier policies because by 1941 there would have been less undeveloped land suitable for subdivision. The recent Annual Reports of the Department of Lands and Survey show that, for purchased land and non Crown land, the purchase of 28 units yields 43 estimated settlement units from 1977 to 1983. The present multiplier for this class of land is thus about 1.5. The present prospects for land development reflect this situation; there are 864 potential farms for settlement from land on hand (Annual Report of the Department of Lands and Survey, 1984:130).

3.4 Apparent Impact of Land Policies

Both the estate subdivision and the returned servicemen policies appear to have had a significant impact on the pattern of land settlement. Early in the twentieth century the absolute number of increase in farms due to estate subdivision was large, but there was much natural subdivision as well. However, estate subdivision when combined with returned servicemen settlement after 1916 contributed significantly to the pool of smaller farms. Since 1941 the impact of closer settlement diminished and by 1956 most of the returned servicemen settlements had been made.

There were some other land policies which can be reviewed quickly although their impact was minimal or indirect. The Small Farms Board, which was established to relieve unemployment, had by 1939 settled 373 farmers on 26,000 acres (MacLachlan, 1966: 30). The average size of farm was 70 acres. However, the development operations were curtailed by shortages of materials during the second World War, and by 1941 the Land Settlement Board took over from the Small Farms Board to provide for returned servicemen settlement. The small farm policy thus had a limited impact.

Another aspect of land policy is the provision of State leaseholds for small-scale farmers. Table 3 shows the number of tenures held as small Crown leaseholds, that is, as renewable lease, deferred payment lease, lease-in-perpetuity, perpetual lease, and occupation with right of purchase. Although the numbers of each of these changed at different times, the total of them made a significant contribution to the occupation land in smaller holdings. Although on average much smaller than the average size of farm, small Crown

TABLE 3

Changes in Major Categories of Land Tenure, 1901 to 1983

	Crown Pastoral Leasehold	Average Size of Farm	Non-Crown Pastoral Leasehold (Non-CPL)	Average Size of Farm	Small Crown Leasehold	Average Size of Farm	Proportion of Non-CPL (%)	Total Crown Leasehold	Actual Occupied Land	Average Size of Farm	Increase in Farm Number Since 1898	Net Gain in Farms and Percentage
1901	12,559,440	8,220	22,358,133	365	2,415,069	196	11	15,600,235	34,911,573	556	2,027	1,678 83
	1,528		61,258		12,313		20	17,314	62,786			
1906	13,040,054	8,005	24,127,400	374	3,536,041	228	15	17,379,936	37,167,460	531		
	1,629		68,313		15,501		23	22,256	69,942			
1911	13,127,377	8,530	27,110,749	374	4,805,195	241	18	18,961,509	40,238,126	545		
	1,539		72,337		19,883		27	27,496	73,876		13,117	4,625
1916	13,155,005	8,764	28,107,188	371	5,264,428	252	19	20,664,642	41,262,193	534		35
	1,501		75,728		20,860		28	33,535	77,229		16,470	5,719
1921	12,848,803	8,268	30,697,954	372	5,395,331	259	18	20,599,811	43,546,757	518		35
	1,554		82,522		20,808		25	34,565	84,076		23,317	13,098
1926	12,386,728	8,258	31,220,101	371	5,322,979	241	17	19,879,653	43,606,829	509		56
	1,500		84,234		22,046		26	35,946	85,734		24,975	13,964
1931	11,730,595	8,244	31,508,990	382	5,498,000	268	17	19,299,193	43,239,585	516		56
	1,423		82,393		20,548		25	37,178	83,816		23,057	13,840
1936	11,346,743	8,301	31,935,350	384	5,490,168	235	17	18,850,150	43,282,093	512		60
	1,367		83,180		23,363		28	37,328	84,547		23,788	13,911
1941	10,608,035	7,771	32,280,302	386	4,980,566	235	15	17,489,828	42,888,337	496		58
	1,365		85,008		21,157		25	35,018	86,373		25,614	13,132
(1948)	10,290,892	7,874	32,501,161	382	4,604,294	243	14	16,893,407	42,792,053	495		51
	1,307		85,176		18,955		22	31,985	86,483		25,724	(14,071)
1951	9,999,112	8,025	33,156,976	373	4,995,685	285	15	16,737,154	43,156,088	478		55
	1,246		88,984		17,515		20	33,341	90,230		29,471	(15,112)
1956	9,203,931	10,249	33,286,682	397	5,649,455	308	17	16,169,415	42,490,613	502		51
	818		83,807		18,324		22	32,908	84,705			(3,378)
1961	8,759,240	12,407	34,907,506	482	6,306,042	342	18	15,707,160	43,666,746	597		
	706		72,460		18,433		25	40,823	73,166			(3,798)
1966	8,225,267	14,507	35,083,664	506	6,077,105	333	17	15,263,336	43,308,928	620		
	567		69,329		18,235		26	45,627	69,896			(4,161)
1971	7,877,000	14,016	35,175,572	547	5,994,000	189	17	14,892,000	43,052,572	664		
	562		64,320		31,739		49	42,539	64,882			
1972	7,853,000	14,023	35,306,870	576	5,592,000	179	17	14,883,000	40,203,391	654		
	560		61,315		31,246		51	41,266	61,495			(4,327)
1976	7,537,857	14,169	36,806,776	597	5,760,177	212	18	14,362,173	39,777,476	644		
	532		61,635		27,171		44	36,826	61,661			(4,391)
1981	6,989,739	15,498	40,118,428	601	4,261,494	107	13	11,898,111	39,658,014	597		
	451		66,754		15,744		21	22,283	66,441			(4,638)
1982	6,439,214	15,210	41,067,581	628				11,475,912	39,353,433	605		
	923		65,348					21,707	64,976			
1983	6,690,990	16,122	39,727,825	596					39,230,383	593		
	415		66,639						66,263			

Notes: 1. These actual occupied land data are revised from 1971 onwards, see Appendix 1.

2. From 1956, the net gain in farm numbers are unadjusted total Land Development and Settlement farms, not the net number of farms "created"

3. All areas in acres.

Sources: N.Z.O.Y.B. and Annual Reports of the Department of Lands and Survey

leaseholds constituted a large proportion of all holdings, ranging from 20 percent of all farm numbers in 1901 to 28 percent in 1936. The provision of the small Crown leaseholds, although not directly influencing the structure of agriculture, did have some effect on the average size of farm, although the precise extent of this effect is hard to quantify.

The above preliminary analysis suggests that closer settlement policies have had considerable effect on the structure of agriculture by contributing to the number of smaller farms. However, a final evaluation of land policies requires giving attention to other dynamics of the structure of agriculture, in particular, average farm size.

3.5 Change in Average Size of Farm, 1874 to 1971

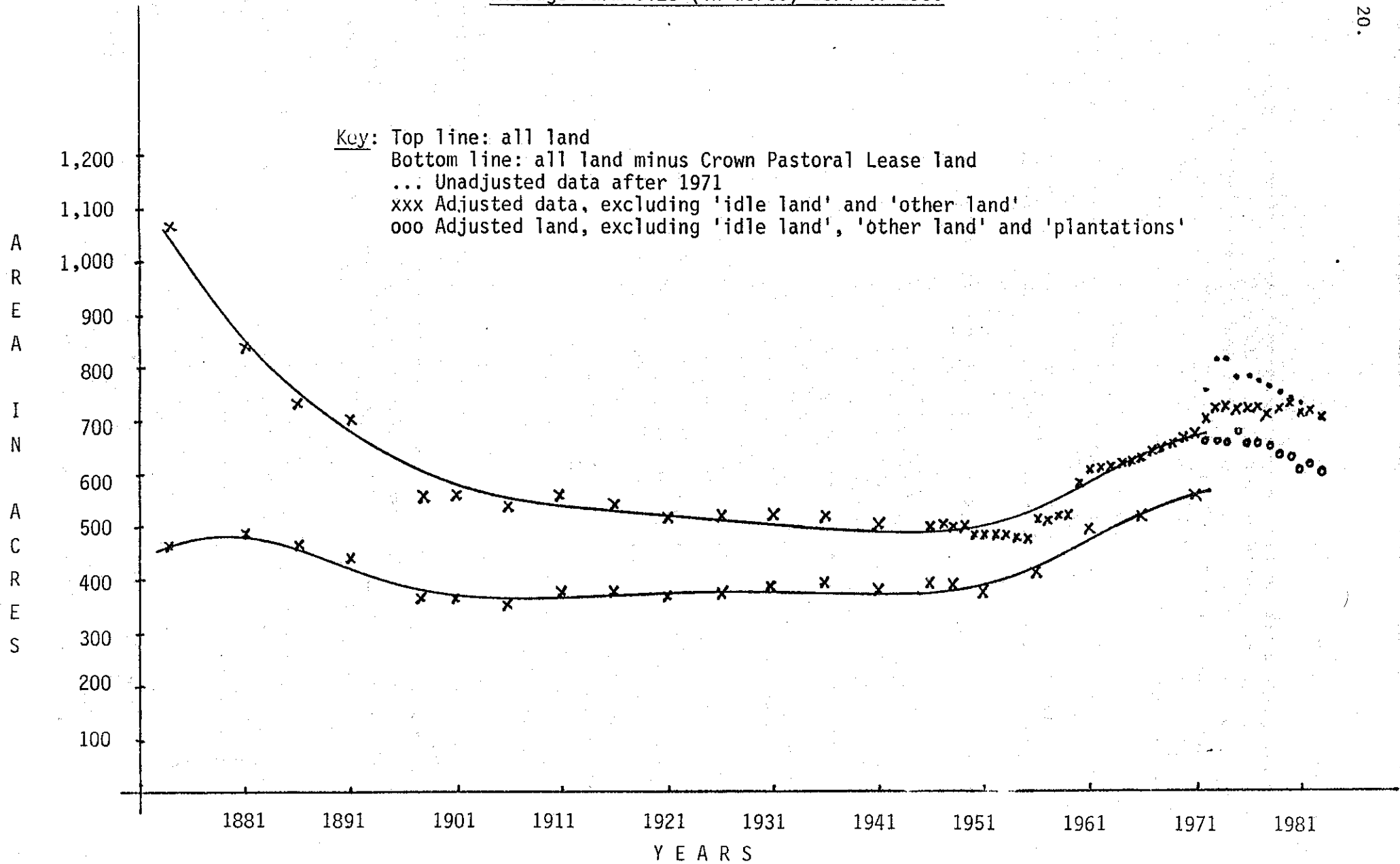
The main backdrop to a complete and effective evaluation of land policy is the study of the impact of closer settlement policy on agricultural structure in particular the change in the average size of farm. The average size of farm reflects change in both the number of farmers and the area of occupied land. Table 3 shows the area (in acres) and number of farms along with other major categories of land tenure in five-yearly intervals from 1901. The average size of farm data are taken from Table 3 and plotted on Figure 1 in two sequences following Gould (1965: 130) including his data from 1874 to 1891. Data from 1971 to 1983 are included but not discussed in this report. The reliability of the data are discussed in Appendix One where it is shown that the general contour of Figure 1 is reasonably accurate despite some quite serious problems with changes to the data base. The top line is the average size for all occupied land and the bottom line is the average size for 'non-Crown pastoral land', i.e., all pastoral runs and licences and all small grazing runs subtracted from the total occupied land area. The non-CPL land data are relevant to more typical agricultural production because it excludes large-scale, extensive pastoral farming.

Figure 1 shows a decline in average farm size to 1901 for both all farm land and non-CPL land, a generally constant average size from 1901 to 1951, and then an increase in average size from 1951 to 1971. In addition, there is a gradual closing together of the two lines from a difference of 270 acres in 1886 to 110 acres in 1971. The non-CPL line also shows a slight decrease in average size in 1921 and 1951, at both times just a few years after the world wars and returned servicemen settlement schemes.

However, average size of farm data and the above analyses are problematic for two reasons. First, the total areas of land involved over time are not constant. Thus, if additional poor quality land under extensive management is added to the occupied land total, or to the non-CPL land total, the average size of farm may increase without any real change in the original agricultural structure. There may even be a decreasing average size of farm on earlier settled areas while the overall average remains constant (Gould, 1965: 135). Further, even with a constant average farm size for example, there may be changes in the distribution of farms over different size ranges which are disguised by the aggregate figure. The following analyses of tenure

FIGURE 1

Average Farm Size (in acres) 1874 to 1983



and farm size distribution go some way in resolving these problems.

To examine the 1898 to 1951 period, which has three distinct phases, we must evaluate Table 3 in conjunction with Table 4 and Figure 2. Table 4 shows five-yearly changes in number of farms for each farm size range for all land. Each number given in the table is the difference between that year and the preceding stated year, along with the plus or minus percentage change. Figure 2 shows the absolute number of farms by size range in five year intervals. For the first phase, from 1911 to 1921, Table 3 shows that CPL land area was approximately constant, the non-CPL land area increased by about three million acres, and the total occupied land area increased by about three million acres. Apparently, new land was brought into production during this time and its net effect was to maintain average farm size for non-CPL land and to produce a slight decline in the average size of farm for all land. The additional three million acres may have been evenly distributed over all farm size ranges or it may have been in the larger sizes, with natural subdivision and intensification resulting in more farms in the small size ranges. Further, it is not apparent whether the additions to occupied land occurred directly as non-CPL land or as CPL land, with some CPL land being converted into non-CPL land. It seems most likely that the additional land went into the non-CPL category.

Table 4 shows that between 1911 and 1921 there were increases in almost all size ranges and that there were some large percentage increases in the large size ranges (e.g. +37 percent in 1911 in the 1,000 to 4,999 acre range). Given that there were only slight changes in average farm size, the greater number of farms in the smaller size ranges apparently balanced the effect of the increases in the large size ranges. Figure 2 shows the large absolute numbers of farms in the smaller size ranges, and it shows how it was these smaller size ranges, except for the one to ten acre range, which increased most in absolute terms from 1911 to 1921. It remains the case however, that the data do not show the origin of the smaller farms -- whether they come from subdivision of existing land or from the newly occupied land. However, there is some evidence which supports the latter view. MacLachlan (1966:29) notes that up to 1926 the 4,000 returned servicemen settlers on 1.4 million acres of Crown land took up farms with an average size of 350 acres. Possibly, this Crown land was in large sizes and then subdivided rapidly. Data from Table 1 do not support these figures but show instead that to 1926 the average size of returned servicemen farm was 190 acres. However, despite these differences the smallness of the farms settled by servicemen suggests that Crown land was rapidly subdivided.

The important point regarding the 1911 to 1921 period, and also the entire 1898 to 1921 period is that the additions to occupied land provided for closer settlement as well as estate subdivision, and that it was not just estate subdivision which was important. The government policies contributed 13,098 farms or 56 percent to the total gain of 23,317 farms from 1898 to 1921, (see column 12, Table 3). The remainder derived from private subdivisions and from the additional land brought under occupation. Between 1911 and 1921 the increase in farm numbers from estate subdivision and returned servicemen settlement is a much higher proportion of the total gain in farm numbers than for

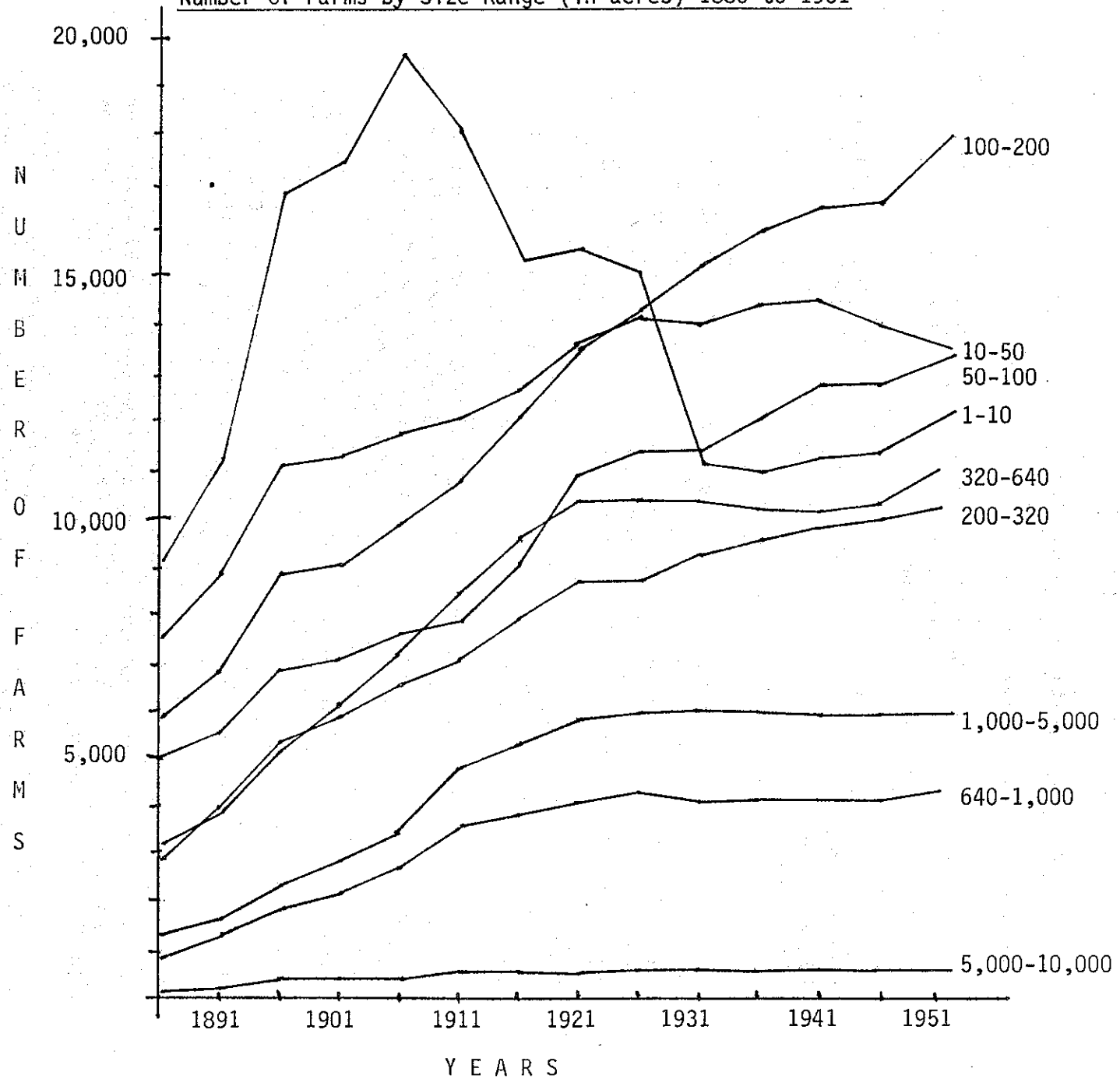
TABLE 4

Five-Yearly Changes in Number of Farms, 1881 to 1960, for Each Farm Size Range (in acres)

	1 - 9		10 - 49		50 - 99		100 - 199		200 - 319		320 - 639		640 - 999		1000 - 4999		5000 - 9999		10,000 - 19,999		20,000 - 49,999		>50,000		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1881																									
1886	1492		1009		552		860		708		546		149		299		37		1		5		5		
	+19		+16		+12		+17		+29		+24		+18		+27		+20		0		-5		+20		
1891	1944		1392		599		925		755		998		344		279		25		19		11		1		
	+21		+19		+12		+16		+24		+36		+35		+20		+11		+11		+10		+3		
(1897)	5599		2109		1220		1953		1380		1442		508		692		96		38		45		81		
	+50		+24		+22		+29		+35		+38		+38		+41		+39		+20		+38		+261		
1901	753		391		329		276		455		779		383		435		49		6		5		15		
	+5		+4		+5		+3		+9		+15		+21		+18		+14		+3		+3		-13		
1906	2319		346		400		870		780		1195		538		695		16		4		1		7		
	+13		+3		+6		+10		+14		+20		+24		+25		+4		+2		-1		-7		
1911	1712		406		386		796		552		1247		861		1283		118		27		30		0		
	-9		+3		+5		+8		+8		+17		+31		+37		+29		+11		-18		0		
1916	2621		598		1174		1413		889		1106		284		504		9		13		29		26		
	-14		+5		+15		+13		+13		+13		+8		+11		-2		+5		+21		-29		
1921	292		914		1586		1642		746		803		291		509		34		36		2		4		
	+2		+7		+17		+14		+9		+8		+7		+10		+7		+13		-1		-6		
1926	494		570		766		566		44		13		131		98		17		19		6		4		
	-3		+4		+7		+4		+1		0		+3		+2		+3		-6		+4		-7		
(1932)	4119		130		1		910		541		109		149		140		23		0		17		4		
	-27		-1		0		+6		+6		-1		-3		+2		-4		0		-10		-7		
1936	233		370		704		772		239		86		6		96		6		1		6		4		
	-2		+3		+6		+5		+3		-1		0		-2		+1		0		-4		+7		
1941	365		22		200		415		319		35		8		52		7		1		1		3		
	+3		0		+2		+3		+3		0		0		-1		-1		0		-1		-5		
1946	115		571		73		53		1		190		0		1		12		7		0		1		
	+1		-4		+1		0		0		+2		0		0		+2		-2		0		-2		
1952	983		298		648		1405		446		691		228		44		21		11		2		4		
	+9		-2		+5		+8		+5		+7		+5		-1		-4		-4		-1		-7		
1957	598		3320		1528		155		19		101		25		121		4		15		2		2		
	-5		-24		-11		-1		0		+1		-1		-2		-1		-5		-1		+4		
1960			1325		421		435		318		925		302		257		20		3		2		1		
			+13		+4		+2		4		+8		+7		+4		+4		1		+1		-2		

FIGURE 2

Number Of Farms by Size Range (in acres) 1886 to 1951



the entire 1898 to 1921 period. The data in Table 5 show the changes in area, number and average size for the different categories of land for the 1911 to 1921 period.

TABLE 5

Origin of the Gain in Farm Numbers Between 1911 and 1921

	Estate Subdivision and Returned Servicemen Settlement	Other Subdivision	Total
Area	1,831,367	1,477,264	3,308,631
Number of Farms	8,473	1,325	10,200
Average Size of Farm	206	1,115	324

These data show that 8,473 farms out of 10,200 (or 87 percent) derived from government policies, and that 1,325 farms (or 13 percent) derived from private subdivisions. However, the area of land in each case was similar, so that the average size of farm was small in the former case and large in the latter case. From 1911 to 1921 the overall average size of farm declined slightly (see Table 3), perhaps because of the large number of settlement farms. Clearly, it was in the last decade of the 1898 to 1921 period that government land policies had most influence on the increase in farm numbers.

For the second phase from 1921 to 1951 the CPL land area decreased by about three million acres, the non-CPL land area increased by the same amount, and the total occupied land area was constant. The increase in non-CPL land is most likely to have been from land formerly held under pastoral leases and licences or small grazing runs. It is possible that land was taken out of Crown pastoral lease and reserved, and other, formerly unoccupied land introduced into use as non-CPL land. However, this is unlikely because all land available for occupation as non-CPL land would most likely be occupied as CPL land. Thus, in this second phase, it appears that land was transferred from the large-scale leases to the non-CPL category and therefore to freehold ownership. The non-CPL category increased by the same amount as in the first phase but the source of land was from already occupied areas. From 1921 to 1951 the number, but not the area, of small Crown leases declined significantly (3,293 fewer holdings) showing that some land in this category may have been freeholded as well.

Over the 1921 to 1951 period the average size of farm for all land declined slightly, while for non-CPL land it remained nearly constant and for CPL land it declined (see Table 3). Perhaps the increasing numbers of non-CPL farms, although not influencing the average size of non-CPL farm, are a greater proportion of total farm numbers and thus bring down the average farm size for all land. That is, CPL land was subdivided and moved into the non-CPL category, and it was subdivided into farms about the same size as non-CPL farms. From

Table 4, one can see that, generally, there were lower percentage increases in the number of farms in each farm size range and some decreases in numbers in the 1921 to 1951 period. There are slightly more increases in the smaller size ranges. The net effect is to have only a slight influence on average size of farm. Figure 2 shows a slower rate of increase in the absolute number of farms in the smaller size ranges when the 1921 to 1957 period is compared to the 1911 to 1921 period. Also visible is a continued overall decline in the one to ten acre size range, and continued rapid increase in the 100 to 200 acre size range.

For the entire 1898 to 1951 period, column 12 in Table 1 shows that the combined net effect of estate subdivision and particularly returned servicemen settlement contributed to about one-half of the increase in farm numbers. To 1931, 60 percent of the increase in the number of farms from 1898 was accounted for by these two closer settlement policies, and this was the year of largest influence. However, for the 1921 to 1951 period the increase in farm numbers due to closer settlement policies is not as pronounced as for the 1898 to 1951 period as a whole. Table 6 shows the relevant changes for the 1921 to 1951 period when estate subdivision was a minimal contribution to farm numbers.

TABLE 6

Origin of the Gain in Farm Numbers Between 1921 and 1951

	Returned Servicemen Settlement 1921 to 1941	Returned Servicemen Settlement 1941 to 1951	Total 1921-1951	Other Subdivision	Total
Area	134,295	784,228	918,523	-	No real change
Number of Farms	694	1,980	2,674	3,480	6,154
Average Size of Farm	193	396	343	-	-

In total, returned servicemen settlement contributed 2,674 farms or 43 percent of the total gain in farm numbers from 1921 to 1951. A total of 3,480 farms or 57 percent appear to have derived from other subdivision. The average size of returned servicemen settlement farm was 343 acres which was slightly smaller than the average for non-CPL land which was about 380 acres. Table 5 also shows that post-1941 returned servicemen settlement involved larger farms than pre-1941 returned servicemen settlement. The closer settlement policies between 1921 and 1951 maintained a constant average size of farm (see figure 1) by encouraging subdivision of already occupied land.

For the third phase from 1951 to 1971 the CPL land area decreased by 1.4 million acres, the non-CPL land area increased by two million acres, and the total occupied land area increased by 0.6 million acres. For this later period the non-CPL land increased as before and gained land mostly, but not exclusively, from CPL land. In addition, 0.6 million acres of new land was brought under occupation. Data on farm size distribution are not available between 1960 to 1972. However, the predominant post-1951 trend in average farm size is an increase in all three categories of CPL, non-CPL and total occupied land. The number of non-CPL farms declined by 19,487 and the total number of farms declined by 19,723. Perhaps the additional land brought into the non-CPL category was in large-sized units, but more likely there may have been considerable net amalgamation of farms in many size ranges. The net gain in farm numbers from closer settlement policies declined during this period; by 1956 most of the returned servicemen land had been settled. Thus, the diminished impact of closer settlement policies was unable to balance a strong movement to increased average size from between 1951 and 1971 as the total number of farms declined by 25,348.

The above analysis of average farm size and related data for the 1911 to 1921, the 1921 to 1951, and the 1951 to 1971 periods shows that government land policies have waned in impact. The period of greatest direct impact was from 1911 to 1921 when estate subdivision and returned servicemen settlement contributed up to 87 percent of the increase in farm numbers. From 1921 to 1951 closer settlement policies contributed to 43 percent of the increase in small farms, and by 1956 the majority of returned servicemen settlements had been undertaken.

From 1901 to 1921 extension of the occupied area was a major factor in the increase in farm numbers, and closer settlement from 1901 to 1921 must be taken to mean extension of occupied area as well as subdivision of occupied land. The average size of farm was roughly constant to 1951, after which it increased. Apparently, closer settlement policies helped to maintain the constant average farm size and when their effect diminished after 1951 there was a rapid increase in farm size.

In the above analysis, the method used was to take the number of farms "created" by a policy and compare it with the increase in the total number of farms. However this proportional method does not emphasize the absolute number of farms. Thus, from 1911 to 1921 the proportional gain in farm numbers from closer settlement policies was high, as was the total number (10,200) when compared to the 1921 to 1951 period (6,154). Also relevant to a balanced appraisal of the impact of closer settlement policies is the ratio of farms "created" by each policy to the total number of non-CPL farms. Tables 1 and 2 show this proportion is, at a maximum, eight percent. Thus, in terms of the total number of farms, the number of farms created with closer settlement policies is a relatively small proportion. In terms of the gain in farm numbers, the number of farms created is a relatively high proportion.

In addition to the overall conclusion that land policies have

declined in impact, the data show some other dynamics relevant to agricultural structure.

For the entire 1911 to 1951 period, although the average size of farm is roughly constant, over time there were more farms in the mid-size ranges. Table 4 shows that there were decreasing numbers of farms in both the small and large size ranges. Further, the numbers in the 50 to 99 acre range up to the 200 to 319 acre consistently increased. The rectangles drawn into Table 4 show the year for the maximum number for each size range. It is the mid-size ranges which peak by 1952 and the small and large size ranges which peak early in the twentieth century. Further, the changes from 1952 to 1957 show an increase in the 320 to 639 acre range, the next sizes up from the three size ranges which peaked in 1952. Perhaps this indicates the trend to increased average size farm apparent after 1951. (The 1960 data are ignored because they are founded upon a different data base which excludes farms less than ten acres in size.)

The increase in the number of mid-sized farms may be the result of amalgamation of small units, or subdivision of large units. Perhaps there was amalgamation of small units only as the number of large farms increased as land came from the CPL category to the non-CPL category. Yet another possibility is subdivision of larger sized holdings on earlier-settled land whose effect was masked by the additions of land in larger-sized units to the non-CPL category. It is likely that natural subdivision was important for considerable land was added to the non-CPL category and subdivision balanced any tendency for new land, probably in larger sizes, to increase average farm size. However, it remains possible that the additions to the non-CPL land were in small sizes, but this seems unlikely. If additions were of large sizes, then the degree of subdivision may have been high. It still remains the case that small farms were amalgamating. Perhaps some subdivisions of large farms were common in the 1911 to 1921 period when much new land was bought under occupation. However, from 1921 to 1951 the additions of small farms combined with a constant average farm size suggests that there was amalgamation. Perhaps the post-1951 increase in average farm size represents a continuation of the earlier amalgamation. Clearly, the present data are suggestive and further research on this topic is required.

3.6 Government Attempts at Controlling Land Aggregation

The final topic to be considered is an evaluation of the current legislation which purports to control land aggregation. Although both the Land Act (1948) and the Land Settlement Promotion and Land Acquisition Act (1952) purport to control land aggregation, it is the latter Act which is most relevant since it covers land sales generally. Prima facie the 1952 Act seems incongruous with the steady increase in average farm size since the time it was enacted. However, it is quite possible that the increases in farm size occurred for strictly economic reasons and the Act "allowed" enlargements because, on scrutiny, the farmland transactions were within the bounds set by the Act. That is to say that enlargements were necessary to maintain

economic units. Such a view assumes that the Act is effective in its scrutiny of farm land transactions. At issue then, is whether the 1952 Act is effective.

The New Zealand Law Society (1983) recently has reviewed the Act and described many of its shortcomings. More recently, Bradley (1984:58) builds from the Law Society review to make strong criticisms and to say:

It is no exaggeration to say that the Land Settlement Promotion Act has never controlled aggregation of farmland. Those who have desired to aggregate farmland in quantities that would be considered "undue" by the authors of the Land Settlement Promotion Act have never been prevented from doing so by the Act.

Bradley claims that the only thing the Act does is to make it more expensive for the farmer to purchase additional farmland and to result in the setting up of innumerable companies by way of by-passing the intent of the act. Further, Bradley claims that lawyers benefit from the activity generated as farmers exploit available loopholes. Any land purchasing costs incurred which result from regulations that produce no real benefits to anybody would appear to be a total loss.

Judging from the Law Society report Bradley's claims seem quite reasonable. The report criticises the imprecise definition of undue aggregation and the lack of guidelines, due in part to the reluctance of farmers to take a case to the Tribunal when they can take the safe alternative of forming a ten-man company and by-pass the provisions of the Act. The total number of applications to the Tribunal has increased from 5,782 in 1979 to 6,982 in 1982, but the number of hearings arising from the application has declined from 10 in 1979 to 2 in 1982. A total of only 27 hearings arising from applications have arisen between 1979 and 1982 from a total of 25,131 applications lodged with the Land Valuation Tribunal. With so few hearings arising from applications made to the Land Valuation Tribunal, farm enlargement purchases which are examined appear to have been seen as acceptable. Perhaps all the enlargements which might be considered "undue" are channelled away from the scrutiny of the Tribunal. The Law society report suggest this but offers no evidence of how often the ten-man company loophole is pursued. There is some evidence that even those enlargements which are contested are judged acceptable by a liberal interpretation of the law, so that considerable aggregation is justified legally (McVeagh, 1979:336).

The Law Society Report describes another loophole. A farmer who has signed an agreement for the sale of land is treated as not owning farmland and can purchase another farm without applying for consent. However, if the initial agreement falls through the farmer can be left with both farms. The report concludes that undue aggregation is not being controlled by the Act and that "the retention of Part II of the Act is perpetuating a situation where government is turning a blind eye to the universal use of a loophole to avoid statutory restrictions".

Problems with definitions of key terms, and with the

administration of the Act have been cited by others. O'Keefe (1968 and 1969) argues that the definition of undue aggregation in the Land Act (1948) is different from the definition in the 1952 Act, and that the Land Settlement Board has wider powers to control aggregation of Crown land than the Land Valuation Tribunal. Administration difficulties arise because solicitors have the burden of insuring that controlling provisions do not apply in any given transaction. In general, O'Keefe points out that early limitations to the amount of land owned were based on concrete criteria such as a specific size, but these have given way to limitations based on interpretation. The change to an interpretive basis was introduced with the 1948 and 1952 Acts. After 1948 the limits on land alienated from the Crown imposed in 1907 were repealed, and similarly, limitations on the amount of settlement land acquired by a husband and/or wife imposed in 1912 were repealed.

With so many problems with the Land Settlement Promotion and Land Acquisition Act, it seems unlikely that the Act is effective. Farm enlargements which may be of such a magnitude as to appear as undue aggregation can be pursued by forming a ten-man company. The problems of definition of undue aggregation also suggest that the Act is unsound in principle. Thus, in terms of its effectiveness and workability, the Act seems to be seriously flawed.

CHAPTER 4

CONCLUSION

In chapter 2 I made the general point that the main stated goal of New Zealand land legislation has been to encourage closer settlement of farmland. This goal has had prominence since 1894 and it has been justified in terms of economic and social benefits which flow from a family farm based agriculture. Chapter 2 provided data relevant to an evaluation of the effectiveness of closer settlement policies.

In general terms, government closer settlement policies have had considerable impact on the evolving pattern of agricultural structure. The impact was greatest up to 1921 when settlement policies contributed significantly to the increase in number of farms. Both before and after this period of maximum influence, land policies were not as significant. In the earlier phase from 1893 to 1916 in which estate subdivision was a highlighted government policy, private subdivision and the increase in occupied land area were important sources of additional farms. Even between 1911 and 1921 the addition of three million acres to the occupied land total contributed significantly to the increase in number of farms. Although expanding the occupied area is a type of closer settlement, it is not closer settlement in its fullest sense. In the later phase after 1941, the occupied land area was at a maximum and there was less scope for land development and land settlement. By 1956 most of the land settlements had been made. Since 1956 government land policy has been limited because most occupied land had been developed already and there was little scope for either subdividing large-scale farms which had potential for more intensive units, or for bringing Crown land into production. These limitations on development have left few significant alternatives but to try and prevent aggregation of farmland with restrictive regulations.

Present day land policy appears to be having little influence on agricultural structure. The policing role, while given great emphasis in the contemporary legislation, is little used in practice and easily avoided where any land purchaser is concerned that a proposed enlargement may not be granted approval. The average size of farm has increased into the late 1970s because farm numbers have decreased since the 1950s when the restricting legislation was introduced. The fairly rapid decrease in farm numbers followed by a slight increase in the 1980's suggests that agricultural structure is influenced by economic and social factors rather than legal factors. It is therefore important for any study of farm size change to give attention to the non-legal factors involved.

The historical review of land policies and their effectiveness suggests principles which may be useful in drawing up future legislation. In some ways, government land policy has followed, not caused, the prominent trends in agricultural structure. Past policies tend to have responded to prevailing economic trends. For example, State-sponsored estate subdivision occurred hand in hand with private subdivision, following the economic trend towards intensification of production on smaller units. Similarly, the land development operations of the Lands and Survey Department are a continuation of a process which began from earliest settlement. Another observation is that government policies have helped to increase total agricultural production by taking on some of the costs of establishing new farms and new types of production, and easing the burden on the new farmer. For example, land leases, loans, initial development, and research all have allowed individuals to begin farming. In some cases the government has facilitated the change from one type of production to another, for example, from sheep to dairy, where this has helped to increase the number of farmers on a given area of land. It must be emphasized that the economic evaluation of this form of government expenditure remains poorly examined.

Land settlement policies thus have a dual quality of following economic trends and facilitating changes in the type of production on the land. An effective modern closer settlement policy may be pursued by recognising the recent change to intensive production of non-traditional crops and livestock on small properties. Post-1971 changes in the structure of agriculture show that intensification is causing an increase in the number of farms. A redefinition of priority to settlement on more intensive units and the provision of supports to aid farmers to begin this kind of production may go a long way to fostering closer settlement in the present context. Such a policy might achieve gains in productivity and employment and thus revitalise present closer settlement policies. However, research is needed to examine what the trend to smallholding really represents. Showing what the trend to smallholding is composed of, and examining what structures tend to inhibit or encourage the trend would be a valuable research contribution. Given that controlling legislation has not been an effective instrument of closer settlement policy, it remains that a potentially effective closer settlement policy is one which "creates" farms.

The data and analysis presented in the report suggest that between 1951 and 1971 government land policies were incompatible with production policies which seemed to foster the trend towards increasing size of farm. There is a tension in trying to pursue two policies which have opposite consequences: closer settlement policies support increasing farm numbers, production policies support improving profitability by increasing farm size, thereby decreasing farm numbers. It appears that the latter policy has dominated agriculture, at least from 1951 to 1971.

Is there any evidence that there are two sets of contradictory agricultural policies? Support for this view comes from two observations. First; given the dominance of production policies, it is not surprising that the law enacted to prevent aggregation of land is ineffective. It appears that to a large extent the 1952 Act was and

is a token gesture to show concern about aggregation of land. From the very time that the law was introduced, farm-size began to increase, suggesting that the law has had little real effect. Second, the Lands and Survey farm settlement scheme, while laudable in both its social objective of aiding young farmers to enter agriculture, and its economic objective of paying its way, is in fact having a minor impact on contemporary agriculture structure. However, the scheme receives wide publicity. Perhaps the farm settlement scheme is given attention because it indicates that governments are still pursuing a closer settlement policy.

The tension between production policies and closer settlement policies persists today. While there is an increase in the number of smallholdings in recent years the process of farm enlargement continues. Land policy has not been reformulated to resolve the contradiction between closer settlement goals and production goals. To assist in the formulation of effective policy, it is necessary to examine contemporary changes in a agricultural structure and the nature and extent of farm enlargement. These objectives are pursued in AERU Report No. 166, Farm Enlargement in New Zealand.

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APPENDIX 1

RELIABILITY OF AGRICULTURAL STATISTICS

The analysis undertaken in this report has assumed that the agricultural data reported are both reliable and valid. The objective of this appendix is to provide some evaluation of the agricultural statistics themselves and in particular to focus on the reliability of the statistics. The general point to be made is that the earlier statistics are probably quite reliable but that there is greater uncertainty concerning later statistics, especially in the last ten years. In general, the statistics can be used for historical analysis.

Layton (1980) provides a comprehensive evaluation of agricultural and other statistics, to 1940. He concludes that, although there are some obvious errors, in general the agricultural statistics are capable of use by historians provided appropriate cautions are taken. Some of the weak points which are relevant to the tables included in this report are first, the number of holdings and second, the tenure of holdings. The 1911 data underenumerated very small holdings, and from 1916 to 1940 there was some overcoverage of small holdings of the residential type, probably having little effect on the data analyses in this report. However, from 1931 to 1940, when a postal collection method was adopted, there was undercoverage of collection, especially in 1931. This explains the rapid decrease in farm numbers to that year (Table 3) a product of inadequate collection rather than an economic response to the depressed 1930's. As a result, the average farm size for 1931 and 1936 probably is slightly inflated. Regarding tenure of land holdings, there is a discrepancy in the official statistics where the amount of Crown leasehold land declared by the lands department exceeds the amount declared in the annual agricultural statistics. However, the data are compatible by the 1930's and they do not form a crucial part of the analyses in this report.

An obvious source of error lies with the procedure and definitions used in undertaking the agriculture survey upon which the agricultural statistics are based. It is important to be aware of changes in the source of data because these changes can influence the number of farms enumerated. The following discussion, focusing on the post-1940 period, summarises the major changes in definitions and methods as described in the introductions to the annual agricultural statistics.

The earlier collection methods appear to be very thorough. Prior to 1909 the Department of Agriculture appointed sub-enumerators to visit some or all properties. From 1916 to 1930 sub-enumerators visited all properties and 20 percent of schedules were left on those properties where the farmer was absent. At this time a holding was defined as any area of land, one acre or more in extent, not being merely a residential site. The definition excluded Maori land and unalienated Crown land. Holdings within boroughs were included and two

separate properties held by the same occupier were considered as two holdings unless worked as one. In 1931 a postal survey was used and, as stated above, there were problems with the average achieved, the effect being to underenumerate small farms. In 1932 holdings inside boroughs were excluded, and sub-enumerators, were used again. In the pre-1950 period a variety of data collection methods were used, and for most years the use of local sub-enumerators, typically local policemen, must have provided a sound basis to data collection.

It is after 1949 that great caution is needed in interpreting farm number statistics. Table 7 shows farm numbers from 1947 to 1983 in groups of consistent figures which correspond to different methods of data collection described below. These same clusters are visible in Figure 1, presented earlier. Table 7 data are not adjusted in any way. The data collection in the early 1950's was sporadic, but from 1953 to 1955 a sampling procedure was used involving 14 percent of all farm holdings and 60 percent of all land. All holdings over 2,000 acres were surveyed. From 1950 to 1955 the data are suspect and tend to overestimate farm numbers because some properties were returned as two or more units. Hence the increase in farm numbers from 1949 to 1950 with a corresponding decrease and the average size of farm.

In 1956, the census suffered because it did not use police enumerators, there was no check on holdings over 2,000 acres, and much idle and unused land escaped enumeration. Further, many small semi-residential property holders did not consider themselves as farmers. The commentary on collection methods notes that these factors contributed to the decline in the recorded number of holdings in 1956, and it emphasises that comparisons before and after 1956 cannot be made. The 1956 to 1959 period gives another group of consistent data which probably underestimate farm numbers and causes the average farm size to be inflated. It is likely that actual farm numbers are somewhat above the 1956 to 1959 levels and below the 1950 to 1955 levels, which puts them fairly close to the 87,086 of 1949.

Another change occurred in 1960 when the postal survey excluded all properties under ten acres but a schedule was sent to all other occupiers. Also, it was found that 2,383 blocks of land amounting to 846,496 acres were abandoned, and abandoned properties were excluded after 1960. If an abandoned property became occupied, then it was included in the statistics. Because of these changes there is another group of consistent figures from 1960 to 1970 where the number of farms is low because of the absence of smallholdings.

It is possible to make an estimate of total farm numbers in 1960 in order to gauge the continuity between sets of data. In 1957 there were 11,765 farms less than ten acres and when this number is added to the 1960 total there is an estimated 88,693 farms giving an average size of 485 acres. Hence the average size of farm appears to be at about the 1950's level. The estimated actual number of farms is fairly close to the 1949 number of 87,086. However, the use of a population survey after 1960 meant that all farms were surveyed and this resulted in improved coverage as shown in the farm size distribution data (see Table 4). In 1960 all farm size ranges, except for farms over 50,000 acres, increased in many cases by as much as 1,000 or so farms. The sum of all the increases was 4,008 farms.

Thus, the above estimate of 88,693, although valid, cannot be compared to earlier years until the 4,008 farms are subtracted. This revises the estimate to 84,685 giving an average farm size of 519 acres which is a slight increase on the 1959 figure. This revised estimate of farm numbers corresponds roughly to the 1959 level. Despite the lack of comparability before and after 1960 it is still quite clear that from 1960 to 1970 the average size of farm steadily increased as farm numbers declined.

In 1971 the date of collection changed from January to June and all holdings over 1 hectare and outside boroughs were included. The definition of a holding in 1972 included any area of land irrespective of size or location used for commercial horticultural, vegetable, poultry or pig production or any area of land two acres or more outside borough boundaries which is used or potentially used for cropping livestock, or forestry. Thus by 1972 a new series had begun which included smallholdings. An additional change in 1972 was the policy of having the farmer declare his farm type to a policy of having the farmer state the percentage of his income from each farming activity and using this datum to classify farms into various types.

This most recent series shows that despite the inclusion of smallholdings the number of farms in 1972 was less than the number in 1970 when smallholdings were excluded. Even with including smallholdings the number of farms had declined although, in part, this is due to the lower limit being one hectare or approximately two acres. A number of cropping, livestock and forestry farms less than two acres are now excluded. The decline in number of farms from 1971 to 1974 causes the average size of farm to rapidly increase, then it falls in 1975 when the number of farms increases by 3,608 in one year. These rapid changes are caused by changes in definition to include new categories of land. In 1971 the Statistics Department introduced 'other land' and in 1975 introduced 'idle land'. Further, if any part of native forest was planted in exotics then the whole area, formerly excluded from enumeration, was classified under 'plantations'. Thus, in the early 1970's the occupied area increased, distorting the average farm size data. Figure 1 (presented earlier) contains revised estimates of the average size of farm by subtracting out the 'idle' and 'other land' categories, and by both taking out and leaving in 'plantations'. The former produces a decline in average farm size. The latter produces a nearly constant average farm size. Table 3 (presented earlier) shows the data with plantations excluded because in my opinion, this is the most accurate reflection of actual trends given the information and data available.

TABLE 7

Groups of Consistent Farm Number Data,
1947 to 1983

	Number of Farms	Average Size of Farm (acres)
1947	86,483	498
1948	86,985	492
1949	87,086	491
1950	90,290	478
1951	90,230	478
1952	90,288	479
1953	90,529	478
1954	91,695	472
1955	92,395	469
1956	84,705	502
1957	84,604	503
1958	83,025	514
1959	83,350	512
1960	76,928	572
1961	73,166	597
1962	72,755	601
1963	72,293	604
1964	71,695	609
1965	70,472	617
1966	69,896	620
1967	68,179	635
1968	66,866	638
1969	66,380	648
1970	65,331	659
1971	64,882	663
1972	62,789	748
1973	63,196	807
1974	63,455	806
1975	67,063	771
1976	67,774	773
1977	68,574	765
1978	69,401	756
1979	70,452	743
1980	71,505	733
1981	72,515	723
1982	73,925	711
1983	75,745	694

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