

Land Utilisation in New Zealand

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(1) The General Situation

Most New Zealanders are very aware of our ‘national estate’: our land with its variegated landscapes, its resources, its surrounding seas. We draw on this to a large extent for our national identity and we glory in the colourful beauty of our NZ coffee-table books and nostalgically recount the bric a brac of earlier days through prized kiwiana - much of which is concerned with the land. Many rural images are iconic: e.g. *Footrot flats* comics, Fred Dagg, earlier TV soaps (see Dunleavy, 2005), and the long-running *Country Calendar*. Foreign visitors are often amazed at the Agricultural product advertising on mainstream TV. We still largely see ourselves as a landed, farming, rural-centred nation in which our endowment stretches over generations: something we hand down to our children and to theirs. It literarily grounds us.

In addition to the land itself, the occupants of various parts of it are imbued with extra social significance. Farmers have long been seen as the backbone of the country, which was rewarded – amongst other things - up until the 1940s - with a legislated rural representational quota. Our National parks have a ‘sacred’ status. However, things are more complex and changing.

(2) Personal

My own experience has been resolutely urban but – as with so many New Zealanders – spiked with many rural and a few deep (back) country experiences. As a small child in Christchurch I was petrified when on a drive we had to ask the way from sentries at Burnham. I was pleased we weren’t shot by the rifle-wielding sentries. While I was growing up in Tauranga – and occasionally enjoying its highly tidal estuaries with my little sailing canoe – I would often visit my ‘cozzies on a dairy farm in Pyes Pa which then was quite a distance from urban Tauranga (which didn’t begin until Greerton). I would occasionally help bring the cows in for milking and have their udders sucked, with the clank-clank of the cream separator the background.

Once finished we would ride on the back of a tractor to take the cream cans out to the road – where they would sit in splendid trust for a truck pickup. We would also shop at the farmers coop store (in an old dairy factory building) on the corner of 11th Avenue and Devonport Rd. More recently the area has switched to kiwifruit production and on my last visit those dairy farms had been replaced with suburbs: infiltrating from Tauriko across the broad valley!

I would join my parents in the old New Zealand past-time of the Sunday afternoon drive where we would repair to a nearby beach or lake/river area and snooze off, boiling up the thermette (a nice little NZ invention) for tea. This was a little institution which brought many urbanites temporarily in some contact with rural areas.

Later, as a young researcher, one of my first experiences was helping to write ‘Why are they leaving Eketahuna’ (Glendining, 1978). And you can’t think of a more iconic small town! (Eketahuna was for a time the butt of NZ rural humour. Mind you as Wikipedia informs us Eketahuna is a booming metropolis compared to the mythical town of Waikikamukau.) My landscape architect son (Henry) has recently sent me more recent photo-shots suggesting it’s a more settled wee town although still losing population. This research-support experience led to my family and I being taken under her wing by Danna Glendining (then sheep farming in the Wairarapa coastal hills) who was keen to educate townies in rural life styles. I can still vividly remember singing in the utter silence of electricity wire running a huge distance from ridge to house. An experience a little further north was emblematic of the then-NZ cultural landscape: calling in at a small town pub (or its off-license) take-seeking to purchase a bottle of wine for the people we were about to stay with – this led to a very long pause before a ‘half bottle’ held to provide diners with was triumphantly produced. Those will still be the days of hegemonic beer.

I then, while still employed by the Town and Country Planning Division (TCP) of MWD, did some more research in this topic area (there was a particular interest in rural residential areas) and the supposed urban/rural continuum which has continued to be an interest although this has long been eroding within New Zealand sociology – despite my discipline beginning in New Zealand with a rural focus (the famous book on *Littledene*) and continued with a range of early rural studies. An interesting experience while in TCP was in observing the pulling together of central government reaction to draft District Plans where DSIR scientists rigidly supported high quality soils whereas planners more inclined to accept wider range of possibilities. Compromise might be better: e.g. the argument that urban gardening etc. still produced good value and that all is not lost with conversion to urban uses.

I haven't really been much of a back-woods outdoors person but tramped in the Kaimais a bit with Boys Brigade and occasionally since and later toured picturesque scenic National Parks by car (and overnight boat experience).

I mention these experiences partly to establish some credentials and user-friendliness in relation to my presumed audience but also to indicate the typicality of the range of my experiences associated with New Zealand's endowment estate: my personal experiences canvass those of the sector as a whole (somewhat to my own surprise).

(3) Varieties of rural life: then and now

The supposed commonalities of rural New Zealand are in fact subject of considerable internal variation and also change over time. In New Zealand we contrast urban, countryside and wilderness ('bush') areas – perhaps differently than in the UK where countryside has a wider connotation and isn't flanked by so much of a separate 'wilderness' category. Increasingly, there are substantial wedges between these categories opening up: rural residential between urban and rural and a fringe of protected areas between country and wilderness. And the coastal littoral is always important for a range of fishing uses.

Early decades of Pakeha settlement were marked by settler rapacity: burning pillaging of land, log clearing, 'pest' introduction – which was destructive and wasteful, at least from today's perspective. In the early decades of European settlement, too, there was a major emphasis on mining. The more mature farming landscape of NZ only became consolidated by the turn of the previous century.

Within the country there were (and still are) the more traditional differences between cow cockies - more recently becoming particularly more economically important) and sheep farmers. The latter were seen as more aristocratic – more 'conservative in the grand older sense - and larger businesses which have been wonderfully etched in various studies such as Hatch's great portrait of South Canterbury/North Otago in his study of two-table versus one-table farm households (1996). Cow Cockies were apparently more aligned with the 1st Labour government and then Social Credit. Early studies showed how dirt poor many farms were in late 1930s (Doig, 1940). New Zealand farmers had performed well: constructing very efficient, evidence-informed, farming operations through a 'grasslands revolution' (Brooking, Hodge and Wood, 2002) on a difficult environmental base and a great distance from their markets. However, this farming system was heavily impacted not only by UK's switch to the EU market but by neo-liberal withdrawal of support services (the pain of these transformations is documented particularly by Wallace, 2013). The small farmer commercialism of the farming system emphasised exporting and technological drive, and could afford to be somewhat carelessness

in its environmental effects. The exotic tended to be preferred over the indigenous in terms of flora but also fauna.

As a result of these stressors and the opening of market possibilities there were opening segments: horticulture, cropping agriculture (always important in Canterbury), deer farming, organic farming, forestry, farm forestry and the more extensive development of international and local tourism. More recent developments have included and aquaculture. Many sweeps of the rural landscape were transformed.

We still need to learn to balance the apparent green lushness of New Zealand farming with the very considerable fragility of New Zealand soils which in fact are often of fairly low quality but well watered and suitable for an efficient form of farming if carefully handled.

Other vistas have opened up. The Maori more holistic vision, and more widespread 'green' visions have become more prevalent within more pragmatic limits of necessities of living and the needed long-term adjustment framework.

Currently pressures to obtain capital are significant: large business capitalists are more likely to take over because land has become valued as a commodity in itself, leaving the farm ownership model in dire straits. An aging farmer workforce is another issue, not helped as potentially replacement generations struggle to accumulate sufficient capital to buy. In turn, opening up rural land to more commercial interests enhances interest from foreign ownerships from a wide range of countries. The growing urban ethnic diversity of New Zealand brings with it different environmental ethics of ethnic groups towards natural resources and the rural sector (e.g. plundering of cockle beds in Kawakawa Bay). On the other hand, to a more limited extent there has been a pressing of Pacific-sourced labour into processing tasks.

The wilderness environment has become more valued: instanced for example in the retirement of marginally productive land allowing regeneration of indigenous vegetation. Widespread conservation efforts have become mobilised – as in eco-sanctuaries. There has been a conversion of leasehold land into various uses in the South Island High Country. Gradual consolidation of conservation estate. This is largely held to be sacred and it need to be protected against mining (cf. Digipoll, 2014).

Global warming still seems a distant complication, although there are signs that effective amelioration may be soon needed. Considerations around carbon emission reduction continue to swirl.

Although there is some discussion of the 'man draught' rural areas are more likely to suffer 'women draught'. There are difficulties in attracting people to more remote locations, although there is some counter-movement to cheaper and more pleasant locales away from metropolitan

centres, especially amongst the retired. Maintaining services to more remote areas is under much stress. There are some nasty downward spirals. Indeed, some recent debate (e.g. Eaqub, 2014) has portrayed New Zealand as divided between booming (over-heated) metropolitan areas and decaying, aging provincial areas. Indeed perhaps ‘Provincial’ is a better term since the fates of rural areas and small service towns are intricately interlocked. (Indeed, when asked about perception of ‘Rural’, respondents include small towns with a division somewhere around population c10,000 which indicates that the inter-relationship is widely perceived.)

There are sharp underlying social class divisions in rural areas, which are papered over by community sociability and solidarity, but deeper fissures may arise if compacting pressures continue.

The overall population which impinges on our land base continues to grow. Images of ideal population size futures drives the overall envelope within which both urban and rural interests might best try to fit, and there are a variety of view on this topic. This an interesting policy issue which is seldom adequately debated or brought to public attention. New Zealand is poor at collectively thinking through our futures. In fact futures planning is very weak at present and many mechanisms for doing this have been disestablished (whereas only 5 years ago it was quite popular, at least within Wellington government circles). Although immigrants continue to be welcomed, majorities prefer a lower level of in-migration which would then slow down New Zealand’s population future considerably.

(4) Recent Facts:

A portrait of rural New Zealand might focus on:

- Changing land uses
- Changing ownerships
- Changing work
- Changing residents
- Changing cultural values.

I include some alternative pictures of recent land use composition, mainly drawn from Ministry for the Environment data which appears to come from aerial interpretation. Broadly, NZ has 30% each in forest and low grade grassland, another 22% in high grade grassland, 7% in exotic farmland and 2% in horticultural use. Urban land is only 1%, However, changes show loss of grassland and gains for forest, horticulture and urban use. The appendix lists census data on the paid rural workforce: I have included ancillary occupations directly linked to rural areas.

<i>- Type of land</i>	<i>Approximate area</i>	<i>Percentage of total urea</i>
<i>1As at 29 November 1999.</i>		

- <i>Type of land</i>	<i>Approximate area</i>	<i>Percentage of total area</i>
Source: Ministry of Agriculture and Forestry		
	hectares (million)	
Total forested land	8.1	29.9
Pasture and arable land	13.8	50.9
Other land	5.2	19.2
Total land area of New Zealand	27.1	100.0

Land-use class	Description	Area (hectares)	Percentage of total land area
Cropping and horticulture	Annual crops or land cultivated for crops. Orchards and vineyards	422,400	2
High producing grassland	Exotic grassland with highly productive vegetation	5,803,100	22
Lakes and rivers	Open waters and riverbeds	529,600	2
Low producing grassland	Exotic and indigenous grassland with lower productivity vegetation	7,705,800	29
Natural forest	Forest and shrub that is not grazed around and is, or could grow to five or more metres tall	8,101,900	30
New forest land	Natural or planted forest present in 2008 but not in 1990	586,600	2
Forestry land planted before 1990	Exotic forest used for either timber production or protection; eg, erosion or river control. Includes harvested areas	1,432,400	5
Scrubland	Scattered scrub within or near grassland not protected or managed for regeneration	1,059,600	4
Settlements	Urban areas, towns and settlements	206,100	1
Wetland	Wetland with vegetation	114,500	<1
Other land	Primarily bare of vegetation and not within settlements; eg, alpine gravel, snow, and ice	889,100	3

Between 1990 and 2008			
Land-use class	Change in hectares		
	Loss	Gain	Net
Cropping and horticulture	5,000	9,500	4,500
High producing grassland	117,800	64,400	-53,400
Lakes and rivers	0	200	200
Low producing grassland	366,700	55,700	-311,000
Natural forest	50,700	...	488,000
New forest land	...	586,600	
Forestry land planted before 1990	47,900	...	
Scrubland	161,600	36,400	-125,100
Settlements	100	2,800	2,600
Wetland	100	0	-100
Other land	6,500	800	-5,600

(5) Interdependencies:

Part of the changing rural science is the considerable inter-penetration; in both directions rural to urban and urban to rural. Primary production uses, too, are interdependent: chemically-enhanced runoff from farms affects aquaculture, tourism (a huge earner) is compromised by poor quality water.

UMR conducted a major research project (using a mix of focus groups and a telephone survey, including a booster sample for rural respondents) for the Ministry of Agriculture and Forestry (now part of the Ministry of Primary Industries) in 2008 exploring perceptions of primary industry amongst both urban and rural New Zealanders. Limitations are that this covers only forestry, horticulture, farming (not mining, park reserves or fishing) or within farming. While the importance of the rural sector was acknowledged by the majority of urban respondents, only a small proportion of rural respondents acknowledged the importance of the urban sector. To this needs to be added other studies and debates on these relationships.

Although rural NZ continues to be iconic the visibility of rural NZ is increasingly limited in our cultural life with TV relatively seldom including rural stories (apart of course from the redoubtable *Country Calendar*)

(6) Governance issues

How might we proceed? It seems to me that there needs to be the building up of more consensus and shared understandings and sharing of values. Both rural and urban interests need a better understanding of each other. Both need to share a longer-term emphasis on sustainability and an ethic of stewardship that our holdings are seen more as 'lease-holders' rather than outright owners with unlimited rights of command.

How are urban and rural linked in terms of governance issues? (Often some rural areas tacked on to urban governments which is often annoying to their residents as they feel that their rural interests are overlooked). Much changes of land use is controlled by the RMA but this is a weak instrument which is only concerned to protect the environment at the margins from excessive impacts and most activities are governed more by the somewhat capricious vagaries of various markets. Perhaps RMA local processes might be strengthened by policies which direct land uses to better optimise natural advantages. Some issues might be better hammered out using more resource-intensive collaborative planning processes. Examples of these are the Land & Water forum and the Hauraki Gulf 'sea change' process (see websites for each), sometimes referred to more generally as 'consensus forums'. These might also be used to look at technology changes and tease out the possible (but not especially visible) effects of changes.

(7) Conclusion:

New Zealand is a country distinguished by a high level of country pride and solid national consciousness in which our life-styles seem superficially homogenous. However, there are many New Zealands which often seem to slide past each other. The urban/rural division is often suppressed as we each pursue our own life trajectories within our own silos, untrammelled by consideration of linkages and inter-dependencies. But it is important to ensure that diverse views are brought to light on relevant occasions, although hopefully not dwelt on endlessly. If such engagements are informative and consensus-building this will lead to a more effective overall NZ effort. The future of New Zealand land – its uses and potentials – are far too important to be left alone to its current incumbents and current governance mechanisms.

(8) References:

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Appendix: Census Paid Workforce Data, SNZ, 2014

Occupation Code	No. 2013	No. 2006	Change	Prop. 2013	Prop. 2006	Title
1-Digit						
12	58371	62037	-5.91	3.07	3.31	Farmers and Farm Managers
36	20331	20862	-2.55	1.07	1.11	Skilled Animal & Horticultural Wrkers
84	45303	46971	-3.55	2.39	2.51	Farm, Forestry and Garden Workers
4-Digit						
1211	897	594	51.01	.05	.03	Aquaculture Farmers
1212	7527	8484	-11.28	.40	.45	Crop Farmers
1213	39615	40551	-2.31	2.09	2.16	Livestock Farmers
1214	10332	12408	-16.73	.54	.66	Mixed Crop and Livestock Farmers
3111	1272	1179	7.89	.07	.06	Agricultural Technicians
3612	1581	2049	-22.84	.08	.11	Shearers
8411	165	120	37.50	.01	.01	Aquaculture Workers
8412	7770	9081	-14.44	.41	.48	Crop Farm Workers
8413	4047	4575	-11.54	.21	.24	Forestry and Logging Workers
8414	6636	7593	-12.60	.35	.41	Garden and Nursery Labourers
8415	8415	8442	- .32	.44	.45	Livestock Farm Workers
8416	16731	15792	5.95	.88	.84	Mixed Crop and Livestock Farm Workers

8419	1539	1368	12.50	.08	.07	Other Farm, Forestry & Garden Workers
8992	1857	1935	-4.03	.10	.10	Deck and Fishing Hands
2341	1950	2136	-8.71	.10	.11	Agricultural and Forestry Scientists
3113	1308	1641	-20.29	.07	.09	Primary Products Inspectors
7211	4668	4410	5.85	.25	.24	Agricultural etc Plant Operators
8312	5499	7146	-23.05	.29	.38	Meat Boners, Slicers, Slaughterers
8313	7743	8361	-7.39	.41	.45	Meat, Poultry, Seafood Process Wkrs
8394	2580	4089	-36.90	.14	.22	Timber and Wood Process Workers
6-Digit						
121111	897	594	51.01	.05	.03	Aquaculture Farmer
121211	3	3	.00	.00	.00	Cotton Grower
121212	465	714	-34.87	.02	.04	Flower Grower
121213	3840	4272	-10.11	.20	.23	Fruit or Nut Grower
121214	513	414	23.91	.03	.02	Field Crop Grower (NZ)
121215	1125	1329	-15.35	.06	.07	Grape Grower
121216	255	114	123.68	.01	.01	Mixed Crop Farmer
121217	0	3	-100.00	.00	.00	Sugar Cane Grower
121218	24	36	-33.33	.00	.00	Turf Grower
121221	1227	1497	-18.04	.06	.08	Market Gardener (NZ)
121299	75	102	-26.47	.00	.01	Crop Farmers nec
121311	981	660	48.64	.05	.04	Apiarist
121312	3744	3528	6.12	.20	.19	Beef Cattle Farmer
121313	22734	21501	5.73	1.20	1.15	Dairy Cattle Farmer
121314	387	507	-23.67	.02	.03	Deer Farmer
121315	84	87	-3.45	.00	.00	Goat Farmer
121316	315	402	-21.64	.02	.02	Horse Breeder
121317	3024	3657	-17.31	.16	.20	Mixed Livestock Farmer
121318	204	252	-19.05	.01	.01	Pig Farmer
121321	534	525	1.71	.03	.03	Poultry Farmer
121322	5145	6846	-24.85	.27	.37	Sheep Farmer
121399	2463	2586	-4.76	.13	.14	Livestock Farmers nec
121411	10332	12408	-16.73	.54	.66	Mixed Crop and Livestock Farmer
231211	528	567	-6.88	.03	.03	Master Fisher
234314	726	543	33.70	.04	.03	Park Ranger
841111	165	120	37.50	.01	.01	Aquaculture Worker
841211	3207	2862	12.05	.17	.15	Fruit or Nut Farm Worker
841212	1287	1872	-31.25	.07	.10	Fruit or Nut Picker
841213	177	144	22.92	.01	.01	Field Crop Farm Worker (NZ)
841214	576	1029	-44.02	.03	.05	Market Garden Worker (NZ)
841215	168	180	-6.67	.01	.01	Vegetable Picker
841216	1932	2844	-32.07	.10	.15	Vineyard Worker
841217	279	.	.	.01	.	Mushroom Picker
841299	144	150	-4.00	.01	.01	Crop Farm Workers nec
841311	2697	3228	-16.45	.14	.17	Forestry Worker
841312	1122	1068	5.06	.06	.06	Logging Assistant
841313	228	279	-18.28	.01	.01	Tree Faller
841411	3702	3678	.65	.19	.20	Garden Labourer
841412	2934	3915	-25.06	.15	.21	Horticultural Nursery Assistant
841511	180	132	36.36	.01	.01	Beef Cattle Farm Worker
841512	3843	3297	16.56	.20	.18	Dairy Cattle Farm Worker
841513	189	240	-21.25	.01	.01	Mixed Livestock Farm Worker
841514	285	276	3.26	.02	.01	Poultry Farm Worker
841515	1659	1824	-9.05	.09	.10	Sheep Farm Worker
841516	1086	1125	-3.47	.06	.06	Stablehand
841517	912	1365	-33.19	.05	.07	Wool Handler
841599	261	183	42.62	.01	.01	Livestock Farm Workers nec
841611	16731	15792	5.95	.88	.84	Mixed Crop and Livestock Farm Worker
841911	255	318	-19.81	.01	.02	Hunter-Trapper
841913	711	.	.	.04	.	Pest Controller
841999	573	321	78.50	.03	.02	Farm, Forestry and Garden Workers nec
899212	1005	1182	-14.97	.05	.06	Fishing Hand
233912	201	174	15.52	.01	.01	Agricultural Engineer
234111	762	792	-3.79	.04	.04	Agricultural Consultant
234112	648	663	-2.26	.03	.04	Agricultural Scientist
234113	540	681	-20.70	.03	.04	Forest Scientist (NZ)
311111	1272	1179	7.89	.07	.06	Agricultural Technician
311311	147	165	-10.91	.01	.01	Fisheries Officer
311312	606	750	-19.20	.03	.04	Meat Inspector
311399	144	165	-12.73	.01	.01	Primary Products Inspectors nec
611112	717	798	-10.15	.04	.04	Stock and Station Agent
711313	1323	.	.	.07	.	Sawmilling Operator
711314	624	.	.	.03	.	Other Wood Processing Machine Op'tor
831114	1959	2031	-3.55	.10	.11	Dairy Products Maker
831115	159	258	-38.37	.01	.01	Fruit and Vegetable Factory Worker
831116	204	192	6.25	.01	.01	Grain Mill Worker
831117	27	45	-40.00	.00	.00	Sugar Mill Worker
831118	159	186	-14.52	.01	.01	Winery Cellar Hand
831199	2643	3117	-15.21	.14	.17	Food and Drink Factory Workers nec
831211	1827	2022	-9.64	.10	.11	Meat Boner and Slicer
831212	3672	5124	-28.34	.19	.27	Slaughterer
831311	5466	5763	-5.15	.29	.31	Meat Process Worker
831312	747	741	.81	.04	.04	Poultry Process Worker
831313	1530	1857	-17.61	.08	.10	Seafood Process Worker
832113	732	1101	-33.51	.04	.06	Fruit and Vegetable Packer
832114	1227	1566	-21.65	.06	.08	Meat Packer
832115	45	99	-54.55	.00	.01	Seafood Packer
839411	84	138	-39.13	.00	.01	Paper and Pulp Mill Worker

839412	1947	3090	-36.99	.10	.16	Sawmill or Timber Yard Worker
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