

What would it take to release 30% of SA's farmland onto the market?

Productive value of farmland in Gauteng (and the Breede) with implications for land reform

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PROMOTING EVIDENCE-BASED RESEARCH AND PUBLIC POLICY

Land reform

1. At what price will 30% of a given district come on to the market?
2. What would an LRAD grant buy?

- **Stylized facts**

- Market based with SLAG, LRAD grants,
- Will cost R17.5b in 1993 prices (R60b in 2013 prices)
- 30% by 1999, 2014
- Slow and uneven progress: 4% by 2005 (Ntsebeza & Hall, 2007), 8% by 2012 (Nkwinti on Fin24.com)

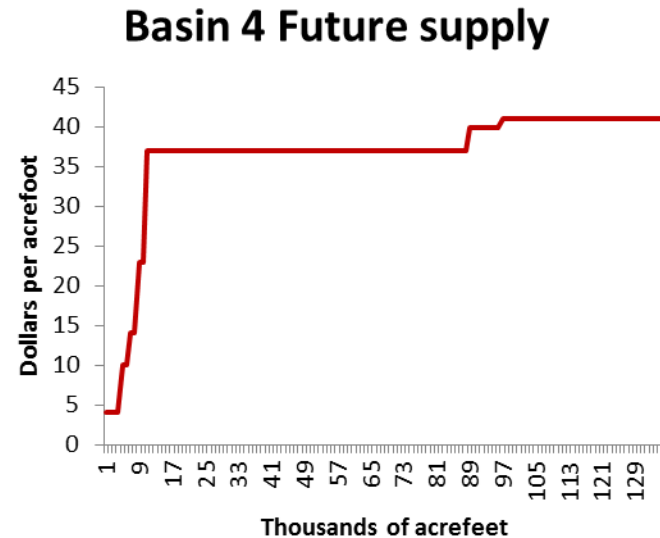
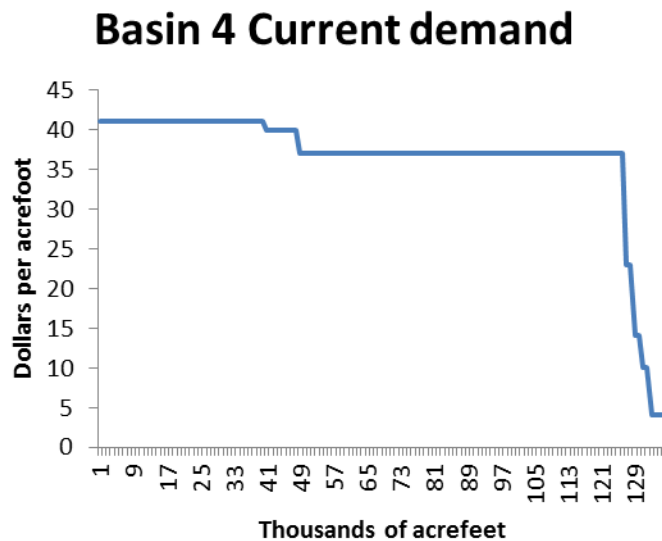
- **What went wrong?**

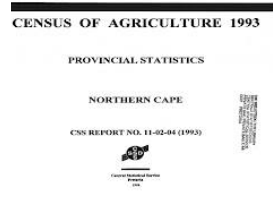
- Too slow, too much bureaucracy, unviable projects, institutional barriers (Kirsten & Van Zyl, 1999)
- Urban aspirations, farming is tough, poor natural resource conditions, not easy for people to be uprooted, AIDS epidemic (Walker, 2007)
- Not a priority for the state, insufficient budget, human capital limitations, cumbersome legal process, agriculture unprofitable (Moseley & McCusker, 2008)



At what price will 30% of a given district come onto the market?

... [W]ater supply for new population and economic activity in the [American] West is much more likely to come from conservation within existing uses, than from the development of new resources... Howe (1985, AJAE)





Methods

- Data sources
 - 1983, 1988, 1993, 2002 farm census for statistical regions 71 (76) Bronkhorstspuit and 78 (Pretoria)
 - 1981, 1988m 1993 and 2002 for Worcester and Robertson magisterial districts
 - Constant costs in both cases
- Variables: Land utilisation (1000ha) and GM per hectare
 - Missing data plugged with national prices from the Abstract and production costs from producer organisations
 - Livestock: Grazing area ÷ livestock type in LSU
- Gross margins in 2010 prices
- More than 95% of land use



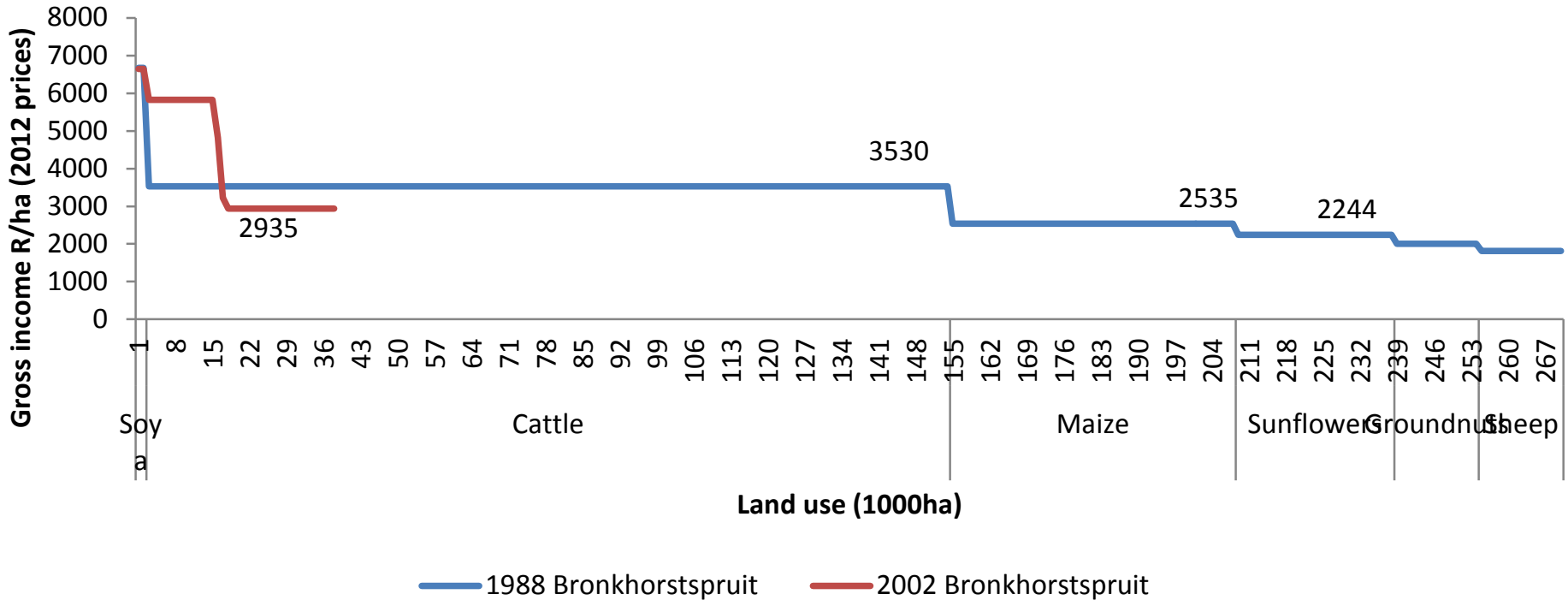
Data tables: Bronkhorstspuit, Cullinan

	1988		2002	
Cattle	152,011 ha	R3,530/ha	19,591 ha	R2,935/ha
Sheep	11,789 ha	R1,816/ha	1,588 ha	R6,647/ha
Maize	53,576 ha	R2,535/ha	14,910 ha	R5,820/ha
Sunflowers	3,022 ha	R2,244/ha	459 ha	R4,821/ha
Ground nuts	1,604ha	R2,009/ha	-	
Soya	2,080 ha	R6,673/ha	129 ha	R3,226/ha
% land use represented	95%		97%	



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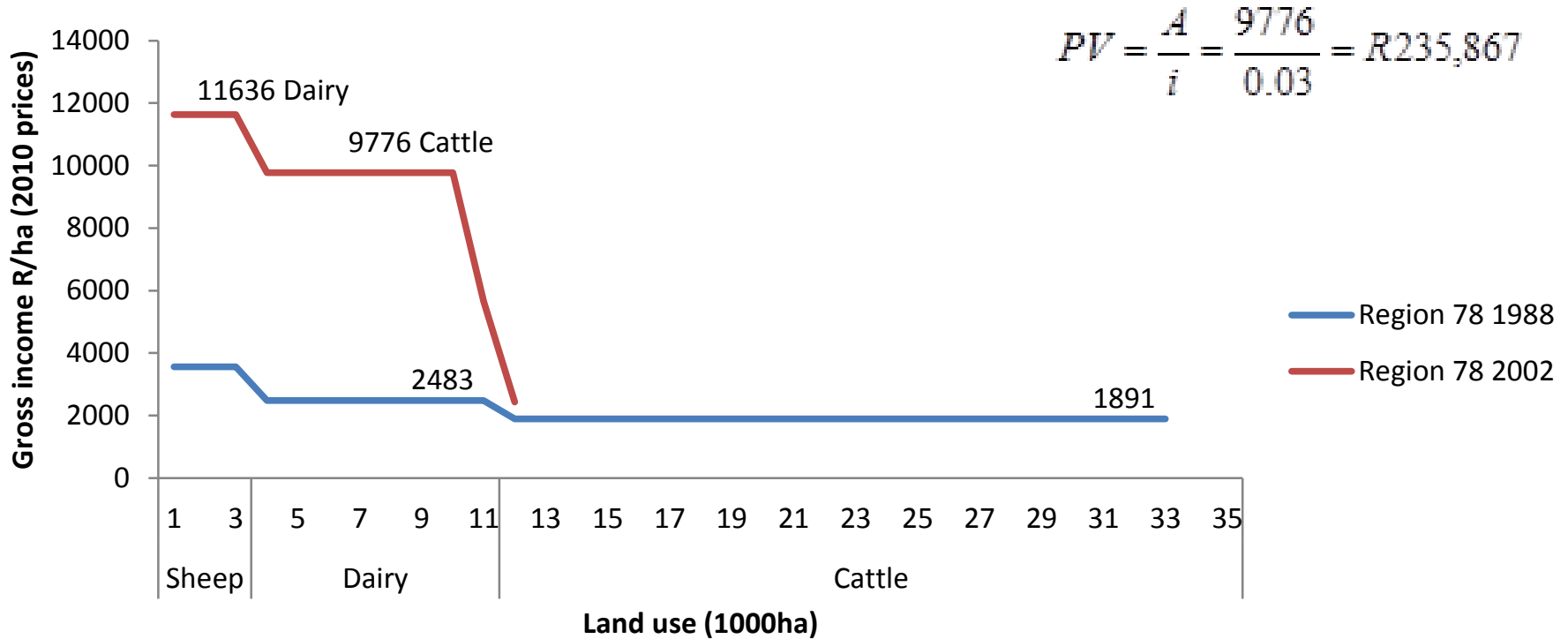
Results: Bronkhorstspuit, Cullinan



$$PV = \frac{A}{i} = \frac{2,535 \text{ to } 3,530}{0.03} = 84,500 \text{ to } 117,667$$



Results: Pretoria, Shosangove



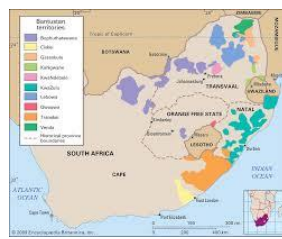
$$PV = \frac{A}{i} = \frac{9776}{0.03} = R235,867$$

$$PV = \frac{A}{i} = \frac{1891}{0.03} = R63,033$$



Table 4: Productive values of land used to graze cattle or cultivate maize

Description	Year	Statistical region 78		Statistical region 76	
		Cattle	Maize	Cattle	Maize
Gross revenue R/ha 2010 prices	1983	1,110	2,117	769	3,238
	1988	2,046		3,520	2,535
	1993	1,240	1,038	262	2,323
	2002	10,303	5,656	2,935	5,820
	avg.	3,675	2,937	1,872	3,479
Production cost in 2010 R/ha		247	3,237	247	3,237
Average NFI in 2010 R/ha		3,428	-300	1,625	2,422
NFI for 2002 in 2010 R/ha		10,056	2,419	2,688	2,583
<i>Productive values based on average income</i>					
NPV over 30 years in R/ha at	8%	38,592	-3,377	18,294	27,266
	14%	24,005	-2,101	11,379	16,960
<i>Land that can be bought with an LRAD grant plus compulsory own contribution at average NFIs</i>					
R20,000 grant + R5,000 own	8%	0.65		1.37	0.92
	14%	1.04		2.20	1.47
R100,000 grant + R400,000 own	8%	12.96		27.33	18.34
	14%	20.83		43.94	29.48



Conclusions & recommendations

1. Prices are rising
2. Shockingly inadequate data
 - Publish historical enterprise budgets
 - Producer organisations must get involved
3. A local story
4. By focussing on the tail, data requirements are reduced
5. Partial equilibrium analysis of transfer from white to black (commercial) farmers is inadequate
 - conservation, lifestyle
6. Obviously more complex than this, but fixing the data is a necessary condition for more complex modelling
7. Deregulation increases volatility

