The Impact of Government Policies on Rangelands Conditions and Rural Livelihoods in the Matsheng Area Kgalagadi North, Botswana

Jaap Arntzen & Kwashi Chigodora

Topics Covered

- Knowledge and use of government policies
- Livelihood impacts
- Environmental impacts
- Conclusions

Introduction

During the last two decades, government policies in Botswana have had an ever increasing impact on rangeland uses and rural livelihoods. This process has been stimulated by two factors. First, the rapid increase in government revenues from minerals boosted the development budget. Second, the many unmet basic needs, particularly in remote rural areas, necessitated the role of government as a development catalyst and provider of public services. Livelihood comprises 'the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household'. We therefore distinguish four categories of policies:

- 1. income support or welfare policies
- 2. production-support policies
- 3. public services policies or provision
- 4. natural resource policies.

In accordance with Ellis' definition of livelihood, we distinguish three livelihood components that add to people's welfare:

- 1. income (cash and in kind)
- 2. access to or control over resources or assets
- 3. public services.

In this presentation we examine the impacts of government policies on livelihoods and natural resources.

Policies and Rural Livelihoods

• Government emphasis is on public service provision and there is little support to production other than agriculture.

• Welfare Policies:

- Growing in number and scope.
- Main source of income for marginal groups.
- Main source of income in settlements.
- Problems: attitudes, political interference and dependency.

• Production-Support Policies:

- Cover crop production, livestock production and industrial development.
- Mostly biased towards livestock development (FAP).
- Little progress with industrial development and tourism. Few projects based on processing of rangeland products.
- Benefits virtually confined to villages.
- Small-scale projects are better.
- Problems: Grants and subsidies used for consumption instead of asset development; limited scope for productive activities; absenteeism / part-time management; abuse.

Natural Resource Policies

- Land use planning has restricted livestock expansion and borehole development.
- Past wildlife policies have not protected the resource; nor have they benefited rural livelihoods.
- Recent CBNRM¹ approach is most promising.
- Water policies aim at water provision. Inadequate recognition of finite fresh water resources. Need to:
 - Consider water as a settlement factors
 - Promote water demand management
 - Ensure that livestock numbers per borehole are not too high.

Policies and the Environment

- Policies have had a strong environmental influence.
- Land use planning has restricted livestock expansion and borehole development.
- FAP and ARAD have increased the number of goats.
- Wildlife policies have not been successful in wildlife conservation because:
 - the killing of problem animals

_

¹ CBNRM network. (1999). www.cbnrm.net

- issuing of special game licences
- poaching
- multiple use of single game licenses.
- Welfare policies have reduced the consumption of subsistence natural resources, *i.e.*, veldproducts and wildlife.
- Policies may have contributed to groundwater depletion.

Conclusions

- Government policies have been successful in terms of income support and improvement of public services.
- Policies have been unsuccessful in asset accumulation, employment and income generation.
- Rural livelihoods and development is heavily subsidised by government. This has:
 - Cut the direct link between rangelands and rural livelihoods
 - Reduced the role of rangelands as a social safety net
 - Created (unsustainable?) dependency.
- The most promising policy approach is Community Based Natural Resource Management (CBNRM) as it:
 - Empowers local residents (assets)
 - Generates substantial income.
- Rural development options are severely restricted in the area. Productionsupport policies should be based on local comparative advantages. Such policies should take into account the specific problems of the sandveld and remote areas.
- Key policy challenges:
 - How to generate income and jobs for local residents?
 - Which development path to follow and promote?
 - How to combine less government dependency and improved livelihoods?
 - What should be the role of government in the development process?

Tables 1-9 below provide numerical evidence for some of the issues presented:

Table 1. A comparison of welfare indicators for the Kgalagadi district and Botswana.

Variable	Kgalagadi district	National average	Urban average	Rural average
Botswana Human Poverty Index	31.0	22.0	11.7	27.1
Life expectancy at birth (1991)	58.9	65.3	69.9	63.2
Adult literacy rate (1993)	57.6	68.9	83.3	64.1
Net enrolment primary school (1995; % of age group)	82.3	96.7	90.6	80.9
Combined primary and secondary school enrolment (1995)	75.3	70.5	n.a.	n.a.
People without safe drinking water (%; 1991)	18.0	23.0	0.0	47.0
People without health services (%; 1995)	36.0	12.0	2.0	17.0
People with access to safe sanitation (1991)	82.0	77.0	100.0	53.0
Under five mortality (1991; death per 1000 birth)	105.0	62.0	46.0	80.0
Underweight births (1995; % of birth below 2.5 kg)	8.0	10.6	n.a.	n.a.
Population / doctor (1995)	6687	3712	n.a.	n.a.

Source: Government of Botswana / UNDP, (1997).

Knowledge and Use of Government Policies

Table 2. People's knowledge about government programmes (as % of respondents; 1998).

Knowledge about government programmes	Tshane (n= 89)	Ngwatle $(n = 21)$
Cattle (SLOCA, TGLP)	48.3	4.8
Goats (FAP)	37.1	4.8
Donkeys (ALDEP)	19.1	0.0

Table 3. People's benefits from government programmes (% of respondents; 1998).

Benefits from government programmes	Tshane (n= 89)	Ngwatle (n=21)
Cattle	13.8	0.0
Goats	4.6	0.0
Donkeys	0.0	0.0

n.a not available.

Welfare Policies

Table 4. Some details of labour-based drought relief projects in the Kgalagadi north (1998 / mid 1999; number of jobs and Pulas).

	Jobs created	% of female jobs	Amount spent	Wages	Wage/ inhabitant	Wage/ employee
Villages	268	76.5	1 372 180	440 889	47.79	1 645.11
Settlements	286	58.4	1 015 800	333 192	192.41	1 165.01
Total	554	67.2	2 387 980	774 081		1 397.26

Table 5. Remote Area Development Programme (RADP) budget for the Kgalagadi District.

Financial year	Annual budget	Annual Support/RAD ^c
1993/94	580 000	P 136.74
1995/96	747 770	P 166.17
1996/97	905 610	P 195.39
1997/98	990 450	P 207.47
1998/99 ^a	1 294 850	P 263.33
1999/2000 ^b	1 709 860	P 337.60
2000/01	735 000	P 140.89
2001/02	1 055 000	P 196.35
2002/03	725 000	P 131.00

^a approved estimate; ^b estimate; ^c 4500 RADs in 1995 (DDP4; 3% ann. growth rate).

Production Support Policies

Table 6. Use of Arable Land Development Programme (ALDEP) packages in the Kgalagadi north district (1997-1999).

	Hukuntsi	Tshane	Lokgwabe	Lehututu	Hunhukwe	Kang	Kgal north Numbers	Kgal. North %
Fencing	390	97	251	110	10	367	1 225	76.2
Ploughs	97	40	65	46	5	39	292	18.2
Harrow/ cultivator	4	1	0	4	0	2	11	0.7
Planter	6	2	0	5	2	8	23	1.4
Draught- power	11	0	6	5	0	15	37	2.3
Scotch cart	7	2	2	2		5	19	1.2.
Total no	515	142	324	172	18	436	1607	100
Total %	32.1	8.8	20.2	10.7	1.1	27.1	100%	

Source: Agricultural Offices, Hukuntsi.

Table 7. Non-agricultural use of FAP in Kgalagadi District and the Kgalagadi north (1995-early 1999).

Year	Projects in Kgalagadi North	Projects in Kgalagadi	FAP grants Kgalagadi north (000 Pula)	FAP Grants Kgalagadi	No. of Jobs Kgalagadi north	Created employment Kgalagadi
1995	9	15	225 6	378.1	18	42
1996	n.a.	n.a.				
1997	7	20	326.0	658.4	23	58
1998	6	14	317.0	715.4	18	42
Total	22	49	868.7	1 751.8	59	142

Note: jobs are planned; actual employment is usually lower. n.a.: not available.

Resource Policies

Table 8: Hunting fees, eat and market value of wildlife species.

Animal	Hunting Fee Citizens	Hunting Fee Non-Residents	Market Value	Meat Value
Eland	50	300	1901	700
Gemsbok	5	200	1154	220
Hartebeest	3	150	1335	190
Impala	1	100	255	70
Kudu	5	150	86	260
Lion	100	1000	3141	?
Ostrich	10	75	636	250
Reedbuck	1	200	1086	?
Springbok	1	200	248	?
Wildebeest	3	200	1110	260
Zebra	20	200	1171	400

Table 9: Wildlife products with and without SpGL (1997); all WMAs in Kgalagadi north).

	Single Game Licences	Single and Special Game Licences
Meat in kg	66 431	155 069
Meat value (in P)	122 862	310 138
Production (in P)	504 840	1 383 952
Meat productivity (gr ha ⁻¹)	21	49
Meat productivity (P ha ⁻¹)	0.04	0.10
Production productivity (P ha -1)	0.16	0.43
Total value ha ⁻¹	0.20	0.53

Benefits from User Right Tendering

The awarded tender for the commercial activities guarantees an income of P 300 000 per annum derived from:

- Hunting rights and quota (178 800)
- Photo safaries (80 000); and
- Estimated income from crafts, camping etc., (P 40 000).

In addition, the trust receives P 246 000 from donors.

The safari company guarantees 75 jobs; another 30 jobs are expected from cultural activities (CBNRM network, 1999)².

The generated income equals P 2 500 income per household. This is more than double the estimated income of 1995. If the jobs would be distributed equitably, over 60% of the households would gain access to a monthly salary.

Constraints for Policies

Physical Capital:

- Inadequate, but improving public services
- Minimal private sector presence
- Market constraints: small domestic market, large distance to external markets and difficulties in timely obtaining inputs for policies.

Natural Capital:

- Limited arable potential
- Limited groundwater.

Human Capital:

- High incidence of illiteracy and poverty
- Lack of business skills (FAP) and limited agricultural skills (settlements)
- People expect hand-outs from government
- Few extension workers in view of vastness of district.

Social Capital:

- Conflicts between settlements and villages
- Dependency syndrome.

² This private sector offer contradicts Barnes' (1995) conclusion that wildlife number had dropped to a level that is unattractive for private companies.

Development Opportunities

- Relatively rich, but shrinking, wildlife resources
- Commercial potential of some veldproducts such as grapple plant, Kalahari truffle and various berries
- Interesting scenery (e.g., pans) with little human influence
- Proximity of and tarred access to the Transkalahari high way
- Proximity to the new Transfrontier Gemsbok park
- Some rangeland resource processing potential.