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PROVINCES AND AGRICULTURAL DEVELOPMENT: CHALLENGE OR OPPORTUNITY?

D.P. Troskie*

ABSTRACT

The purpose of this paper is to explore the state and agriculture at the subnational sphere; an area currently receiving little attention in the South African agricultural economics fraternity. It is argued that South Africa's Constitution bestows certain decision-making and legislative powers on its nine provinces and that public goods and redistributive policy options are available to the agricultural sector. As about two-thirds of South African agricultural expenditure (83% if conditional grants are included) takes place at provincial level, it was shown that provincial dynamics are relevant. While the characteristics of tribal populations in provinces are found to be important, a poor alignment between provincial agricultural expenditure and certain elements of consequence (employment, value addition, etc.) can be shown.

The paper also deconstructs the commonly used terms "state" and "agriculture" at a provincial level and dwell on the concept of the rational civil servant. In the case of the state, the challenge of moving beyond institutionalised silos is discussed. It is shown that agriculture consists out a multitude of actors, that representation often overlap and that similarities with a "tragedy of the commons" can be observed in the way some of the actors maximise personal gains. To understand the system non-traditional schools of thought such as "social economic systems" and "bounded rationality" may provide answers.

Keywords: government performance, intergovernmental relations, intergovernmental transfers, political economy, agricultural policy

JEL Codes: H110, H770, Q180 and P160

1. INTRODUCTION

It is a great honour to present the annual F.R. Tomlinson Commemorative lecture, but it also implies a heavy responsibility to be worthy of both the man and event. Being from a rural area (Swellendam), he was not only the Founding President of the Agricultural Economics Association of South Africa (AEASA), but also

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the first person to receive an M.Sc. in Agricultural Economics at a South African university (Stellenbosch). In the spirit of the times, he received his Doctor of Philosophy abroad (Cornell) and returned to complete a Doctor of Science at the University of Pretoria. Honorary doctorates were awarded by the universities of Pretoria, Stellenbosch and the Orange Free State. He was also involved in twelve committees of enquiry of which the most renowned was the Tomlinson Commission (Commission of Enquiry into Socio-economic Development of the Bantu Areas within the Union of South Africa) (AEASA 2011). Indeed, a person who can be considered to be the father of the agricultural economics profession in South Africa.

This may be a good opportunity to take up the challenge proposed by Vink (2012) and “resist the currently dominant paradigm of applied microeconomics”. This statement, combined with a career spent at subnational level in the civil service of South Africa, resulted in the decision to explore the nature of government intervention in the subnational sphere of South African agriculture. The first part of the paper will focus on government expenditure on agriculture and its link to the role and functions of provinces (without addressing spatial asymmetry). In the second part concepts such as “state” and “agriculture” will be deconstructed.

2. SOUTH AFRICAN GOVERNMENT INVESTMENT IN AGRICULTURE

A good point of departure is to evaluate the size of government investment into the agricultural sector since 1994 (see Figure 1). The first observation that can be made from the information in Figure 1 is that the real allocation to the agricultural and land reform functions has steadily increased from R5.9 billion in 1995/96 to R18.1 billion today. For the agricultural function an initial decline from R5.8 billion to R4.0 billion in 1998/99 was offset by rapid real growth in expenditure to reach the R11.1 billion allocation in the 2012/13 financial year. Of some concern is the fact that the real agricultural allocation in the outer years (2013/14 and 2014/15) is set to show a decline.

This concern is confirmed when expenditure on agriculture and land reform as a share of total government expenditure is investigated (see Figure 2). During the initial years of democracy expenditure on agriculture declined from 1.4% of government expenditure in 1995/96 to 0.9% in 1998/99. Although it has since recovered to fluctuate around 1.2% of total government expenditure, it started on a downwards trend during the middle of the 1990s from a peak of 1.3% to less than 1.1% in 2014/15. Of more concern is the fact that it is still set to decline in the outer years of the current MTEF period.

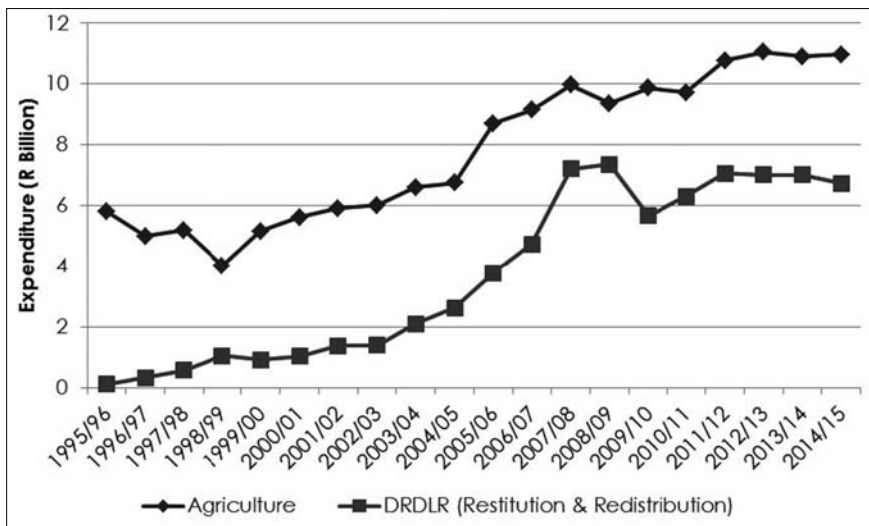


Figure 1: Real government expenditure on agriculture (2011 values)

Source: Treasury (2012a), Treasury (2012b), Treasury (2009), Treasury (2007), Treasury (2006), Treasury (2005), Treasury (2004), Treasury (2003), Treasury (2001), Treasury (2000), Treasury (1999), Troskie (2001)

Note: DRDLR only includes money appropriated for redistribution and restitution (although not exclusive for agriculture, agricultural projects receive a significant part). Agriculture includes spending by the National Department of Agriculture (currently DAFF) and provinces. It excludes allocations for forestry and fisheries at national, and environment in provinces.

In the case of land reform the pattern shows a steady increase in its importance, culminating in almost 1% of government expenditure allocated to this function at the time of the 2007 Elective Conference of the African National Congress. Since then a steady decline can be observed with expenditure declining from 0.72% in the current financial year to 0.66% by 2014/15. The combined expenditure on agriculture and land reform in South Africa declined from 2.3% in 2007/08 to an expected 1.7% by 2014/15. Although this is much less than the 10% benchmark South Africa has committed itself to when it signed the Maputo Declaration (AU, 2003), it is still significantly more than the 1.3% of the middle 1990s.

Despite popular belief more money is available for agriculture than for land reform (see Table 1). For every one rand spent on land reform, more than R1.50 is spent on agriculture if national and provincial allocations are combined. If the allocation to agriculture is analysed in more detail, it is clear that almost two-thirds (63.9%) of the expenditure on agriculture is allocated from provincial funds. Of the 36.3% allocation by DAFF, 19.0 percentage points are also distributed to provinces in the form of grants and the remainder retained by DAFF for various other actions and transfers (among which is the R935 million transferred to the ARC).

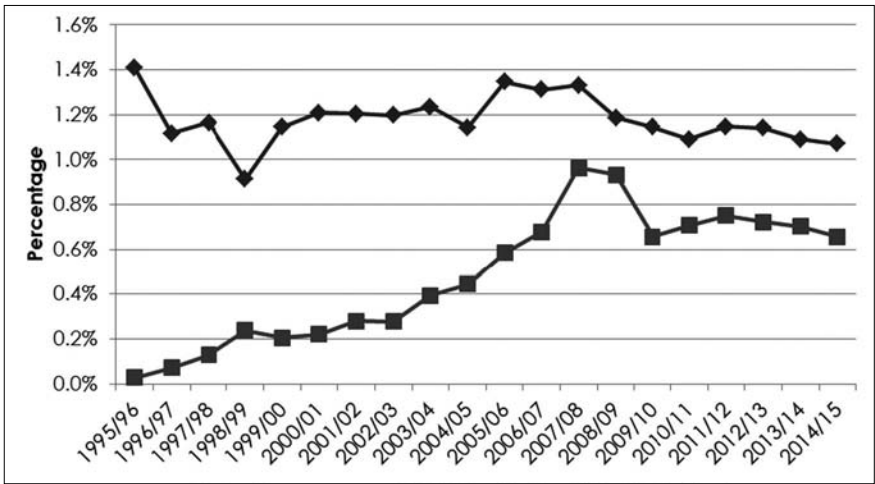


Figure 2: Government expenditure on agriculture as a share of total government expenditure. Source: Treasury (2012a), Treasury (2012b), Treasury (2009), Treasury (2007), Treasury (2006), Treasury (2005), Treasury (2004), Treasury (2003), Treasury (2001), Treasury (2000), Treasury (1999), Troskie (2001)

Note: The same caveats as in Figure 1 apply.

At R1.5 billion (72.8% of total) the Comprehensive Agricultural Support Programme (CASP) is the most significant of the transfers to provinces, and at 19.7% *Ilima Letsema* is second in line. Although the amount indicated for disaster transfers may be small, it is usually *post facto* and is reflected in the adjustment estimates, which are annually tabled during November. Planned interventions to ameliorate past disasters are often provided for under the CASP umbrella (for example, R1 billion is allocated to the Northern Cape Province until 2014/15 for interventions resulting from the 2011 Gariep River floods).

The first conclusion in this section is that provinces do matter, at least about agricultural expenditure. The last serious attempt by the South African agricultural economics fraternity to explain the agricultural political economy of provinces dates to the previous century (see Troskie & Vink, 1999). At the local government level the political economy of commonage use was investigated by Hara *et al* (2009).

Table 1: Agricultural expenditure over the 2012/13 medium term framework period (Nominal R Million).

| ITEM | FINANCIAL YEAR | | | | | | | | | | | 2012/13 Distribution | | |
|---------------|----------------|---------|---------|---------|---------|---------|---------|-------|-------|-----------|--|----------------------|--|--|
| | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Main | Agric | Transfers | | | | |
| DRDLR | 5 928 | 4 901 | 5 693 | 6 689 | 7 012 | 7 400 | 7 490 | 38.8% | | | | | | |
| DAFF | 1 565 | 1 791 | 1 717 | 2 213 | 1 912 | 2 091 | 2 377 | 10.6% | 17.3% | | | | | |
| Transfers | 1 018 | 1 109 | 1 248 | 1 412 | 2 106 | 2 147 | 2 194 | 11.7% | 19.0% | | | | | |
| CASP | 588 | 697 | 860 | 1 029 | 1 533 | 1 599 | 1 664 | | | 72.8% | | | | |
| Ilima Letsema | 83 | 67 | 199 | 323 | 416 | 438 | 461 | | | 19.7% | | | | |
| Land Care | 49 | 52 | 56 | 58 | 116 | 109 | 68 | | | 5.5% | | | | |
| Disaster | 146 | 180 | 77 | 1 | 2 | 2 | 2 | | | 0.1% | | | | |
| Other | 152 | 114 | 56 | 1 | 39 | 0 | 0 | | | 1.9% | | | | |
| Provinces | 4 963 | 5 652 | 5 814 | 6 591 | 7 040 | 7 262 | 7 632 | 39.0% | 63.7% | | | | | |
| Total | 13 474 | 13 453 | 14 472 | 16 905 | 18 070 | 18 900 | 19 693 | 100% | 100% | 100% | | | | |

Source: EC (2012), FS (2012), Gauteng (2012), KZN (2012), Limpopo (2012), Mpumalanga (2012), NC (2012), NW (2012), Treasury (2012a), Treasury (2012b), WC (2012).

Note: The data for the 2008/09 to 2010/11 financial years are audited outcomes. 2011/12 is the main appropriation for 2011/12. 2012/13 to 2014/15 is the medium-term estimate. The same caveats as in Figure 1 apply.

Second, significant amounts of money are available for government interventions in agriculture. It can be argued that the main constraint is often not a lack of money, but rather a lack of good and well developed interventions. This leads to a number of questions:

- (a) What are the basic underlying factors leading to successful interventions (in various forms)?
- (b) How can successful interventions be “massified”?
- (c) What are the best ways of communicating these results (both to state and society)?
- (d) Has the right balance been found between operational expenditure and Compensation of Employees?

Third, failing to provide these answers may lead to resources being moved elsewhere. Government expenditure allocated to agriculture and land reform has been declining since 2007/8, confirming the fear that those carrying the purse may be looking elsewhere to find “bang for their buck”. Since the Tomlinson Lecture of 2001 (Vink, 2001) no concerted effort was made to create a rigorous message from South African agricultural economics literature. Is it not time for a new compilation of lessons and, more important, their communication in an appropriately palatable way to the right audiences?

3. THE ROLE AND FUNCTION OF PROVINCES

The previous section has shown that agricultural allocations by provinces accounts for 63.7% of government agricultural expenditure and a further 19% is in the form of conditional transfers from national government to provinces. The *raison d’etre* of provinces is again in the public debate (see for instance ANC, 2012) resulting in this being the appropriate moment to reflect on their role and function. With South Africa’s Constitution (Act 108 of 1996) being the supreme law of the country, its content would be the right point of departure. As interventions require money, the second part of this section will focus on provincial revenue before the final part investigates the factors determining provincial expenditure on agriculture.

3.1. Roles and responsibilities of provinces as ruled by the Constitution

In the Constitution of the Republic of South Africa an entire chapter is dedicated to the Bill of Rights of South African citizens, making it the cornerstone of our democracy. It also drives our social responsibility and puts the responsibility on the state to respect, protect, promote and fulfil these rights. The question remains how these rights can be most efficiently administered and executed. The first part

of the answer to this question can be found in section 40 of the Constitution, which constitutes government at the national, provincial and local spheres. It also indicates that government at these levels should be distinctive, interdependent and interrelated. Note that the word “sphere” has a significant different meaning from the popularly used concept of “tier” with its synonyms such as level, layer, stage, rank or step.

Section 41(1) starts to regulate the relationship between the three levels of government and, more specifically, it rules that all spheres of government must:

- (a) secure the well-being of the people of the Republic;
- (a) respect the constitutional status, institutions, powers and functions of government in other spheres;
- (b) not assume any power or function except those conferred on them in terms of the Constitution; and
- (c) exercise their powers and perform their functions in a manner that does not encroach on the geographical, functional or institutional integrity of government of another sphere.

Section 41(2) rules that an Act of Parliament must regulate the relationship between the three spheres of government, resulting in the Intergovernmental Relations Framework Act (Act 13 of 2005) being passed. This Act makes provision for a number of platforms where functional and coordination issues can be discussed between the various levels of government.

Section 104(1)(b) of the Constitution conveys the power to provinces to pass legislation on any functionality listed in Schedules 4 and 5. Concurrent functions include agriculture, regional planning plus urban and rural development. Exclusive provincial mandates include provincial planning, abattoirs and veterinary services. Although the authors of the Constitution intended national government to be responsible for policy development and international trade, the allocation of veterinary services as an exclusive provincial function leads to interesting challenges and opportunities regarding international trade in animals and animal products.

The principle embedded in the Constitution is clearly the establishment of three spheres of government, each with certain levels of powers and responsibilities. As the question “what constitutes optimal solutions” will always be debated, this creates the ideal opportunity for experimentation with different approaches to problem solving. Nevertheless, the functions allocated to provinces cover only a part of the agricultural policy instruments identified by Rausser and Swinnen (2010). Their first group is quantitative public goods policies such as agricultural research and development. The second category is quantitative redistributive policies, which would include direct farmer support such as CASP. The third

category consists of structural policies seeking to modify economic institutions. Examples would include laws, property rights and contractual arrangements, thus changing transaction costs. Applied to South Africa, this model shows that provinces are only allowed to focus on public goods and redistributive policies.

3.2. Source of provincial revenue

The Constitution also regulates the financial relationship between the three spheres of government. Section 213 establishes a revenue fund for national government and Section 226 does the same for provinces. Money may only be withdrawn from these funds through an appropriation enacted by the relevant parliament. Section 214 determines that an Act of Parliament must provide for equitable division of revenue between the three spheres of government, distribution within each sphere and any other allocations (including its conditions) to be made to other spheres of government. Hence the importance of the annual Division of Revenue Act (DORA), which determines the equitable share and conditional grants allocated to the spheres of government.

The framework within which government institutions operate is further elaborated by the Public Finance Management Act (PFMA) (Act 1 of 1999). One of the key provisions of this Act is the establishment of an Accounting Officer, who should be the Head of Department. This Act also elaborates in detail on the responsibilities and duties of accounting officers (more about this later). The implication of the framework created by the Constitution and the PFMA is summarised in Table 2, showing that provinces have very little scope for the generation of their own revenue and for borrowing. Thus, between 78% and 80% of their income is received from the national government in the form of an equitable share. If other national transfers (i.e. conditional grants) are added, national government provides between 96% and 97% of provincial income.

Table 2: Provincial revenue by source over the 2012/13 medium term framework period (Nominal R Billion).

| SOURCE | FINANCIAL YEAR | | | | | | | | | |
|----------------------------------|----------------|---------|---------|---------|---------|---------|---------|--|--|--|
| | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | | | |
| Equitable share | R 204.2 | R 239.8 | R 265.1 | R 288.6 | R 309.1 | R 328.9 | R 349.3 | | | |
| Conditional grants | R 40.6 | R 50.0 | R 62.4 | R 69.1 | R 75.3 | R 81.4 | R 76.9 | | | |
| Own receipts | R 9.4 | R 9.7 | R 10.4 | R 10.3 | R 11.4 | R 11.1 | R 12.7 | | | |
| Financing | R 1.8 | R 1.5 | R 2.9 | R 0.7 | R 0.9 | R 0.2 | R 0.2 | | | |
| Total receipts | R 255.9 | R 301.1 | R 340.8 | R 368.6 | R 396.6 | R 421.6 | R 439.1 | | | |
| Equitable as % of total | 79.8% | 79.7% | 77.8% | 78.3% | 77.9% | 78.0% | 79.5% | | | |
| National transfers as % of total | 95.6% | 96.3% | 96.1% | 97.0% | 96.9% | 97.3% | 97.1% | | | |

Source: EC (2012), FS (2012), Gauteng (2012), KZN (2012), Limpopo (2012), Mpumalanga (2012), NC (2012), NW (2012), WC (2012).

Note: The same caveats as in Figure 1 apply

Juxtaposing provincial dependence on national funding with Rausser and Swinnen's classification of policies insinuates that provinces control only one half of quantitative agricultural public goods and redistributive policies. For this reason it becomes important to understand the mechanism how funds are distributed between and within the spheres of government. The vertical division of revenue between the three spheres of government is annually determined through a process involving the Budget Council, the Financial and Fiscal Commission (FFC) and National Treasury. To a large extent this division is the result of a consultative process and value judgements.

The horizontal division of the equitable share between the various provinces are being done with the aid of a formula (and hence the term "equitable"). The formula (see Table 3) currently takes cognisance of six components:

- (a) Education (48%) is calculated as the number of children of school age (from 5 to 17 years) and actual school enrolment. Each of these elements contributes 50% to this component.
- (b) Health (27%) includes the medically uninsured (75%), visits to primary health care facilities (5%) and patient days at tertiary hospitals (20%).
- (c) Basic share (16%) is the population distribution between provinces.
- (d) Poverty (3%) is the provincial share of the people in quintiles 1 and 2 of the Income and Expenditure Survey.
- (e) Economic activity (1%) is the provincial share of the Regional Gross Domestic Product.
- (f) Institutional (5%) is equally divided between the nine provinces.

Table 3: Equitable share formula as applied for the 2012/13 division of revenue.

| PROVINCE | COMPONENT | | | | | | Weighted average |
|---------------|-----------|--------|-------------|---------|---------|---------------|------------------|
| | Education | Health | Basic share | Poverty | Economy | Institutional | |
| | 48% | 27% | 16% | 3% | 1% | 5% | 100% |
| Eastern Cape | 16.3% | 14.2% | 13.5% | 16.7% | 7.6% | 11.1% | 15.0% |
| Free State | 5.6% | 5.5% | 5.5% | 5.7% | 5.5% | 11.1% | 5.9% |
| Gauteng | 15.7% | 20.5% | 22.4% | 15.7% | 33.9% | 11.1% | 17.9% |
| KwaZulu-Natal | 23.2% | 23.0% | 21.4% | 23.0% | 16.1% | 11.1% | 22.0% |
| Limpopo | 13.9% | 10.7% | 11.0% | 14.4% | 7.0% | 11.1% | 12.5% |
| Mpumalanga | 8.4% | 6.8% | 7.2% | 8.6% | 7.1% | 11.1% | 8.0% |
| Northern Cape | 2.2% | 2.2% | 2.2% | 2.4% | 2.3% | 11.1% | 2.7% |
| North West | 6.3% | 6.5% | 6.4% | 7.5% | 6.5% | 11.1% | 6.7% |

| PROVINCE | COMPONENT | | | | | | Weighted average |
|--------------|-----------|--------|-------------|---------|---------|---------------|------------------|
| | Education | Health | Basic share | Poverty | Economy | Institutional | |
| | 48% | 27% | 16% | 3% | 1% | 5% | 100% |
| Western Cape | 8.4% | 10.6% | 10.5% | 6.0% | 14.0% | 11.1% | 9.4% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Source: Treasury (2012a).

Although education and health are important components of the formula, the allocation of these funds is unconditional with the result that provinces may allocate these funds according to their own policies and priorities. Nevertheless, it is clear from the equitable share formula that input elements such as the number of people of school age, medically uninsured, population size and the number of poor make up 68% of the allocation. Output measures (school enrolment, hospital days and visits to clinics) are only 31% of the formula. Finally, outcome measures (economic activity) accounts for just 1% of the allocation. Accepting the argument that school enrolment and hospital days are actually input variables, this distribution becomes 98% input, 1% output and 1% outcome.

This could lead us to debate the average civil servant's reaction to the way that provincial income is calculated (more later). It will also be interesting to observe how the 2011 Population Census will influence the division of revenue between provinces and the implications of these changes. For the moment it is more appropriate to turn our attention to the way that provinces determine their agricultural allocation.

3.3. Provincial expenditure on agriculture

Provincial allocations to the agricultural function are provided in Table 4. Although economic activity is only 1 per cent of the formula, provinces (except Gauteng) spend more than this share of their discretionary funding on agriculture. In the case of Limpopo and Mpumalanga it is as high as 3.4% and 3.3%, respectively. At R1.8 billion, KwaZulu-Natal has the biggest allocation to agriculture and is closely followed by the Eastern Cape (R1.7 billion) and Limpopo (R1.6 billion).

Table 4: Some elements of provincial agricultural expenditure.

| PROVINCE | 2012/13 | | | | | 2010/11 | | |
|----------------|-------------------------|-------------|---------------------------|-----------------|---------------------------------|------------------|-------------------------|--|
| | Total Agric Expenditure | Grants | Discretionary Expenditure | Equitable share | Discretionary as % of Equitable | Agriculture RGDP | Ag expenditure & AgRGDP | |
| | (R Million) | (R Million) | (R Million) | (R Million) | (%) | (R Million) | (%) | |
| Eastern Cape | R 1 694 | R 260 | R 1 434 | R 46 940 | 3.1% | R 3 124 | 49.1% | |
| Free State | R 579 | R 194 | R 385 | R 18 531 | 2.1% | R 5 946 | 6.7% | |
| Gauteng | R 365 | R 71 | R 294 | R 54 545 | 0.5% | R 3 450 | 9.0% | |
| Kwa-Zulu Natal | R 1 807 | R 277 | R 1 530 | R 67 803 | 2.3% | R 15 883 | 8.3% | |
| Limpopo | R 1 580 | R 264 | R 1 316 | R 38 721 | 3.4% | R 4 810 | 28.3% | |
| Mpumalanga | R 980 | R 168 | R 812 | R 24 874 | 3.3% | R 5 238 | 13.9% | |
| Northern Cape | R 730 | R 505 | R 225 | R 8 255 | 2.7% | R 3 687 | 8.4% | |
| North West | R 851 | R 213 | R 638 | R 20 615 | 3.1% | R 3 523 | 17.5% | |
| Western Cape | R 560 | R 154 | R 406 | R 28 772 | 1.4% | R 12 984 | 3.7% | |
| Total | R 9 146 | R 2 106 | R 7 040 | R 309 057 | 2.3% | R 58 644 | 12.0% | |

Source: EC (2012), FS (2012), Gauteng (2012), KZN (2012), Limpopo (2012), Mpumalanga (2012), NC (2012), NW (2012), Treasury (2012b), StatsSA (2011), WC (2012).

Note: Discretionary expenditure includes all funds for which provinces can determine priorities. This includes equitable share and own revenue, but excludes conditional grants.

A further observation emerges when the value added to the Regional Gross Domestic Product (RGDP) by the Agricultural, Forestry and Fisheries (AgFF) Sector is compared with the agricultural expenditure on agriculture. The Eastern Cape's expenditure on agriculture is equal to almost half (49.1%) of its agricultural value add (AVE) despite the fact that it is only responsible for 5.3% of South Africa's AVE. Similarly high expenditure rates are observed from Limpopo (28.3%, and 8.2% of RGDP), North West (17.5% and 6.0%) and Mpumalanga (13.9% and 8.9%). At the other side of the spectrum the Western Cape's expenditure is only 3.7% of AVE despite the fact that it is responsible for 22.1% of the AVE at national level. KwaZulu-Natal, responsible for 27.1% of South Africa's AVE, ploughs only the equivalent of 8.3% of its AVE back into the Sector. It follows that there should be no shortage of resources for agricultural development in provinces such as the Eastern Cape, Limpopo, North West and Mpumalanga.

Nevertheless, the perception is that an inverse relationship can be observed between expenditure and AVE in provincial agricultural sectors. A similar dilemma, observed in the 1990's, has led Troskie and Vink (1999) to explore its theoretical foundation; finding potential explanations in three schools of thought. The first of these is the neo-classical school of welfare maximization with arguments such as Pareto-Optimality, Hicks/Kaldor trade-offs, Schitovsky's Paradox and Arrow's Impossibility Theorem. The basic argument is that decision makers are wise and by actively applying their minds a better livelihood can be created for passive citizens. The second school sees politicians (the state) as passive rent-seeking entrepreneurs and the ability of citizens to mobilise determines policy outcomes. Concepts such as the Prisoner's Dilemma and the Lemon Problem were developed by authors such as Peltzman, Olson, Becker, Scrimgeour and Pasour. Proponents of the third, and most recent approach, argue that underlying structural determinants are the ultimate determinants and that the actors in the system can only have a marginal influence.

The latter approach was tested by Troskie and Vink (1999) and it was shown that variables such as the income gap between rural and urban people is much more important in explaining provincial budget allocation than employment generation, the size of the sector or agriculture's contribution to the economy. As Rausser and Swinnen (2010) in their review paper, confirmed by De Gorter (2010), argue that consensus is developing in favour of structural determinants, the previous results were subjected to tests with current data (see Table 5).

As conditional grants are only a fraction of provincial agricultural expenditure, the strong correlation between total and own expenditure should be no surprise. The fact that a positive and moderately strong relationship exists between agricultural allocation and equitable share indicates that not all relevant variables are captured in the equitable share formula. A number of arguments normally

used by those motivating increased spending on agriculture show either a weak or negative correlation with provincial agricultural spending. Specific reference can be made to the agriculture’s size, its contribution to GDP, agricultural exports, number of farms and employment creation. The variables showing a really strong correlation with provincial agricultural budget allocation are mostly associated with the characteristics of tribal populations in provinces. The size of the tribal population, its share of total population and the tribal area’s share of the poor² show the decisive correlations.

Table 5: The correlation between provincial agricultural expenditure and certain provincial characteristics.

| VARIABLE | CORRELATION |
|--|-------------|
| Provincial expenditure on Agriculture | 1 |
| Expenditure on Agriculture from discretionary | 0.9750 |
| Discretionary expenditure % of Equitable share | 0.5941 |
| Agricultural GDP | 0.2388 |
| Agriculture's share of RGDP | -0.0468 |
| Agricultural exports | -0.3861 |
| Number of farming units | -0.3425 |
| Agricultural employees (LFS) | 0.2527 |
| Agricultural employees (Census) | -0.0967 |
| Gross Farm Income | -0.3536 |
| Gross Farm Income per farm | -0.2097 |
| Assets per farm | 0.2130 |
| Tribal population | 0.9670 |
| Rural formal population | 0.1305 |
| Tribal as share of population | 0.8180 |
| Rural formal as share of population | 0.7954 |
| Tribal poor as share of poor | 0.8515 |
| Rural formal poor as share of poor | -0.4078 |
| Rural poor as share of poor | 0.7888 |

Note: See the Attachment for the data and full correlation matrix.

The first implication of these results is that it is proper that these correlations,

showing such a strong emphasis on tribal areas (read former homelands), should be discussed during the Tomlinson Commemorative Lecture. Second, one can argue that budget allocation is poorly aligned to important growth indicators such as agriculture's size, export contributions and employment creation. Furthermore, the fact that the variables associated with commercial agriculture (farm numbers, rural formal population, rural formal poor as share of the poor) shows a negative or weak correlation while the variables associated with tribal areas (number, population, poverty) indicate that some rural people may be more equal than others. Fourth, it may explain why so little structured support to farm workers (often the poor in the formal rural areas) is available. Finally, commercial agriculture should reconsider its approach to provincial agricultural organs of state.

Bates and Bock (2010) make an observation relevant to this discussion. Focusing on Africa, they show that an increase in the size of rural populations leads to a decrease in the political power of rural populations. On reaching a tipping point the political clout of rural populations increases again on the condition that electoral competition exists. Nevertheless, provinces do differ. The Western Cape and Gauteng may have a very small tribal population, but are jointly the conduit for 75% of South Africa's agricultural exports. It follows that individual provinces may have different dimensions to their agricultural political economy, leading back to the argument that South Africa's governance system creates the ideal opportunity for differentiation and experimentation.

4. DECONSTRUCTING PROVINCIAL AGRICULTURE

The reasoning in this paper has established that provinces are important actors when it comes to agricultural support. Furthermore, albeit limited in terms of the traditional political economics paradigm, provinces do have certain powers and responsibilities. It was also shown that underlying economic determinants will have an influence on how these powers and responsibilities are executed.

The terms "state" or "agriculture" are usually used without any attempt being made to understand the intricacies embedded in these terms. Yet, the finer nuances of these concepts are of critical importance in the public policy debate. For this reason this section will, with emphasis on the Western Cape, deconstruct the concepts of "state", "civil servants" and "agriculture" before a new approach is recommended.

4.1. The "state"

There is more than one way of approaching the concept of state, and Hill (2009) provides a useful classification:

- (a) A passive entity to be influenced/captured (Pluralist and Marxist view)

- (b) An active entity with interests of its own (Elitist, Corporatist and public choice theories).
- (c) Containing actors with potentially conflicting interests (Policy Network/Community).
- (d) A structured system influencing and constraining action (Institutional theory).

It was established in Section 3.1 that South Africa has three distinct spheres of government, leading to the situation represented in Figure 3. National government consists of a number of departments and statutory bodies. These agents of state usually have offices or branches geographically located in the area of responsibility of provinces. At the same time some tertiary institutions, although established under national legislation, are also situated in one or more province with an associated provincial footprint. At the same time provinces, being a distinctive sphere of government, have their own range of organs of state (departments and statutory bodies) accountable only to the Provincial Parliament. At local level, still within the geographical area of provinces, the three types of municipalities (local, district and metro/city) have their own set of functions, responsibilities and lines of accountability. Furthermore, each of these organs within each sphere has a particular mandate, outside which any expenditure will be unauthorised.

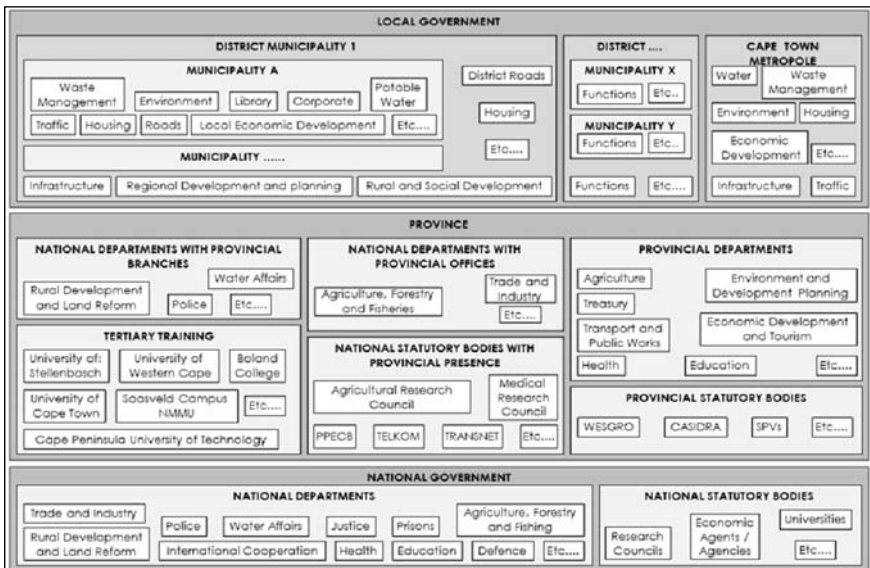


Figure 3: Schematic representation of institutionalised silos in government.

This complexity can partially be described from the viewpoint of a hypothetical

small-scale farmer. This farmer received a land reform farm from the (national) Department of Rural Development and Land Reform and an operational loan from the (national) Land Bank. Infrastructure needs get funded via the Comprehensive Agricultural Support Programme (CASP), which is a programme of the (national) Department of Agriculture and implemented by provincial departments of agriculture. However, to build a shed he must get approval from the local municipality, which will grant approval according to guidelines developed at provincial level at the hand of prescripts provided by national legislation. Additional water, a prerequisite for successful farming in most areas of South Africa, is a competency of the (national) Department of Water Affairs. Before he can export his apples he needs inspection from the (national) Perishable Products Export Control Board (PPECB), but the export of animal products needs to be licensed by the (provincial) veterinary services. Products not making the grade for export will be sold at local (municipal) markets.

Given this complexity a large number of (unschooled) smallholder farmers struggle to access the range of services available to them. The same principles apply to other agricultural activities such as research, protection of the natural environment, training and exports. With the wide range of actors from different spheres of government having a stake in agriculture, it is easier to develop consensus on agricultural matters with private sector players than between organs of state.

4.2. The rational civil servant

Each organ of state consists of human beings with all the strengths and weaknesses associated with humans. De Gorter and Tsur (1991) introduce the “rent maximising bureaucrat”, arguing that the typical bureaucrat will maximise his/her own utility and that this will inevitably add to the welfare of society. Normally a redistributive effect is postulated, implying that the patronage to a particular group must be offset by payments from another part of society. This “reality check” is absent in the case of provinces (See Section 3.2) with the result that utility (power) will be increased by maximising the size of the structure, the number of employees and hence the budget controlled. If this argument is related to the nature of the equitable share formula (and the emphasis placed on needs rather than results), one can argue that a perverse incentive for non-performance has been built into the system.

Fortunately, one of the fathers of rational decision making (Downs) had a more diverse view of the objectives of bureaucrats. He makes a distinction between “self interest” and “mixed motive” officials. In the case of self interest, the following categories emerge:

- (a) Climbers: These are officials purely seeking to maximise their own utility (as

it may be embodied in power, income or prestige). Thus, they either seek to win promotion, aggrandize their current position or to build their reputation in order to find a better job elsewhere.

- (b) **Conservers:** People seeking to maximise their own security and convenience. Security is equated to the status quo and for this reason they will oppose all change, and innovation.

For mixed motive officials three categories are described:

- (a) **Zealots:** Persons loyal to relatively narrow policies or concepts. They seek power both for its own sake and to implement the policy options they are proposing.
- (b) **Advocates:** This group is loyal to a wider set of policies or to a broader organisation. They are impartial to the merits within the organisation or framework to which they are loyal, but highly partisan against outsiders.
- (c) **Statesmen:** Officials loyal to the nation or society as a whole and, to a certain extent, the type of official idealised in most textbooks. However, as they enjoy influencing important decisions, they still seek to enhance their power and prestige for personal and altruistic reasons (Downs, 1964).

Of course a whole new school of theory (including principal-agent models of behaviour, bounded rationality and embeddedness) subsequently developed to explain (and model) these characteristics of bureaucrats. However, the purpose of this paper is not to enter into an in-depth analysis of these, but rather to argue that the “state” construct consists of people (and human characteristics).

4.3. Mind games in South African agriculture: a tragedy of the commons

The concept “agriculture” is actually a collective noun for a range of (conflicting) actors. Indeed, South African examples can be provided where one segment of the sector actively (domestically and internationally) undermines the economic well-being of the whole in order to secure particular short-term gains. Examples include articles appearing in the Danish consumer publication *Taenk* (Taenk, 2009) and the Austrian consumer journal *Konsument* (2009) articulating a particular viewpoint regarding evictions and farm workers as “slaves”. It is evident that this leads to international consumer resistance (see for instance Heizer & Heizer, 2009) against South African agricultural products resembling marketing conditions during the apartheid (sanctions) era. This extraction of individual rents from a system, and thus swaying the sentiment in the system, is equated by Hassan and Mertens (2011) to the tragedy of the commons.

In the paper originally coining the phrase “tragedy of the commons”, Hardin

(1968) departs from the (mathematically correct) tenet that it is not possible to maximise for two (or more) variables at the same time. He sketches the scenario of a herdsman on common grazing area (at its maximum carrying capacity) making the decision whether to add another cow to his flock. This cow will have both a positive (income for the herdsman) and a negative (pushing the commons into being overgrazed) impact. The positive impact will be close to one on the herdsman's personal utility, but the negative impact will be shared between all the herdsman. When this herdsman adds the positive (approaching one) and negative (approaching zero) utilities, the rational choice would be to add another animal to his herd. This would also be the rational choice (for himself and all the other commonage users) in adding a second, third and fourth animal. According to Hardin's reasoning, it is inevitable that a common property would lead to its overutilization.

The nature of the scientific process is that the underlying assumptions and conclusions of any approach will be questioned (after all, to publish in peer reviewed journals academia must engage theory and develop critique). In the case of the tragedy of the commons the critique contains elements such as the fact that not all actors are exclusively motivated by short-term gains. Furthermore, as not all individuals are identical nor are all firms homogeneous, actors are not summarily interchangeable and there may be existing (formal or informal) rules of access to the commons or usage of its resources (Al-Fattal, 2009).

What is the nature of this commonage of the mind in the case of one of the provinces of South Africa? There are currently approximately 6 653 commercial farming units in the Western Cape and, including farm owners, there are between 123 000 and 201 230 persons directly involved in farming. There are also approximately 9 844 smallholder farmers who employs a further 6 455 people as farm workers (WC, 2010). It can be postulated that the average person employed in farming supports four other people (family members, pensioners, acquaintances and the children of others). Thus, roughly 700 000 people, out of a provincial population of 5.8 million, live on farms.

The people living on Western Cape farms can be grouped into three broad categories (see Figure 4):

- (a) The owner of the farm or, in the cases of absentee owners, the most senior manager.
- (b) Farm workers. Although some live in towns or "agri-villages" and commute on a daily basis to the place of work, by far the greater majority still live on the farm.
- (c) Other people living on the farm. In a number of instances these people are not

necessarily working on the farm.

The majority of commercial farmers belong to a farmers associations or industry organisations, which jointly form Agri West Cape and eventually Agri South Africa. However, in some instances certain industry organisations are loosening their ties with the Agri West Cape structures and are finding alternative administrative homes in organisations such as Agri Mega. Although there is currently no credible alternative structure representing commercial farmers in the Western Cape, TAU SA does exist at national level and is attempting to expand into the Western Cape. This association has politically more conservative objectives and is increasingly becoming involved in non-agricultural issues (joining forces with organisations such as AfriForum and Solidariteit). This threat, of TAU eroding their membership, is in itself sufficient enough to have an influence on the actions of Agri West Cape.

There are currently three organisations representing smallholder farmers in the province. The first is the Western Cape Branch of the National African Farmers Association (NAFU). On the verge of being defunct, attempts were made in 2010 to “re-launch” it. However, as the incumbent management of NAFU threatened to take the “new” management to court, the latter established a separate organisation with the name of African Farmers Association of South Africa (AFASA). The third organisation, United South African Agricultural Association (USAAA) is predominantly a Western Cape-based organisation. Recent indications are that USAAA and AFASA may, if not amalgamate, at least forge closer cooperation ties.

Within and between these five organisations (whose actual paid-up membership remains a secret) there are often differences of opinion and personality clashes. Organisations representing the interests of the other people living on farms (workers and rural dwellers) are even in a worse disarray of diversity. A number of labour unions and worker organisations represent some of the farm workers as well as workers in associated industries (i.e. canning, transport). A number of these labour unions (Food and Allied Workers Union (Fawu)), are affiliated to the Congress of South African Trade Unions (Cosatu). Other worker federations with agricultural related affiliated unions include the Federation of Unions of South Africa (Fedusa) and the National Council of Trade Unions (Nactu). Nevertheless, most farm workers in South Africa remains un-unionised.

An even wider range of organisations maintain that they speak on behalf of the people living on farms and, sometimes, also on behalf of farm workers. This range of organisations include faith-based organisations (FBO), community-based organisations (CBO) and other non-governmental organisations (NGOs). Most of these organisations are dependent on donor money and their activities range from specific or general advocacy of real or perceived challenges faced by people living on farms (Women on Farms) to addressing particular concerns (Foetal Alcohol

Syndrome).

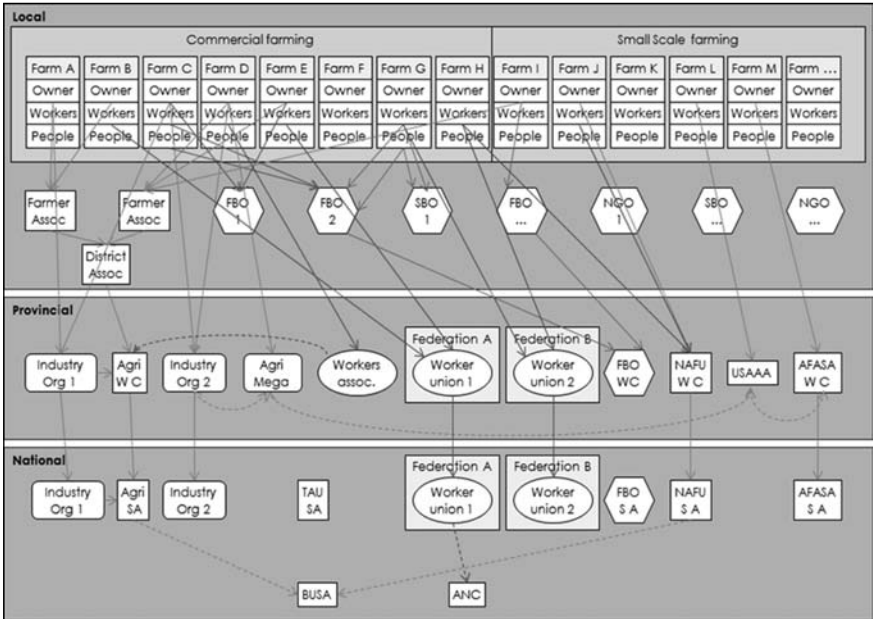


Figure 4: A schematic representation of some of the actors in the Western Cape Agricultural Sector.

In an interesting South African twist Cosatu (and thus Fawu) is also part of the Tripartite Alliance (with the African National Congress (ANC) and the South African Communist Party (SACP)) governing South Africa at national level as well as in eight of the nine provinces. Another tweak is that the Western Cape branch of NAFU claims that it does not only represents small scale farmers, but also “other vulnerable groups such as youth, women, people living with disabilities, and farm workers” (Nafu WC, 2011). This provides a new dimension to arguments regarding elitism and the relationship between labour and capital.

4.4. Moving from tragedy to common

It is clear that (agricultural) state and society are both fragmented and comprise individuals with the incentive to influence the collective, leading to a need to explore alternative literature. The “tragedy of the commons” theme leads us to explore Social Ecological Systems (SES) and the writings of one of its best known experts, Nobel laureate Elinor Ostrom. In an overview paper, Ostrom (2008) suggests that the following principles should be considered when designing

governing systems for sustainable common resource use:

- (a) Accurate and relevant information. The system as well as the individuals involved in it changes over time with the result that reliable current information is required.
- (b) Clearly defined boundaries. The boundaries of the system should be clearly defined as well as the rules specifying who (and their entitlements) forms part of the system.
- (c) Collective choice arrangements. Those affected by the outcome should be involved in the processes.
- (d) Deal with conflict. Those involved in the common system should have rapid access to low-cost, local arenas to resolve conflict among actors.
- (e) Graduated sanctions. Actors who violate rules are to receive graduated sanctions (depending on the seriousness and context of the offence).

A second model to explore captures both individual and collective (system) choice during the process of policy decisions (see Figure 5). At the core of this model is the identification of the issues to be addressed. As organisational agendas are usually indicative of individuals' priorities and the attention scope of both individuals and organisations are limited, some form of prioritisation needs to take place. The priorities are often not the result of informed reasoning, but rather emotional responses to (political?) problems resulting in high priority issues receiving the brunt of attention while less important concerns may fall along the wayside. Alternatively, the latter may follow the route of incrementalism or may receive "pre-packaged" solutions.

There is a logical relationship between organisations and their members. People will withdraw their membership or become inactive members if organisations regularly ignore the issues that their members perceive to be the most important. Conversely put, in an environment with abundant issues and a range of organisations reflecting those concerns, individuals will become members of those organisations reflecting their personal view of what is important, creating an "idea marketplace".

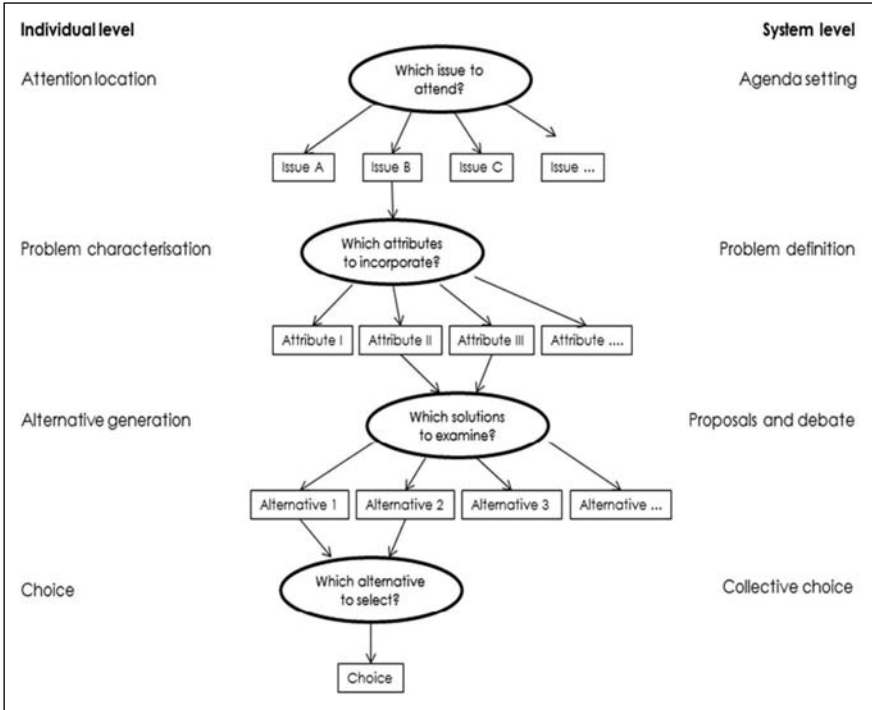


Figure 5: An information processing model of choice.

Source: Jones et al. (2010)

Once the organisation’s agenda is determined, it is followed by the characterisation of the problem (at individual level) and defining the problem (at organisational level). However, the information that people receive is rarely neutral and it has already been argued that context has a major impact on people’s reaction, resulting in problem contextualisation remaining an extremely important area in the policy process.

Given the way the problem is defined, a number of alternative ways of solving the problem may be identified. As each individual will have at least one alternative solution in mind, it follows that a process (structured or unstructured) usually takes place at organisational level to determine a potential range of solutions. This range of solutions then eventually needs to lead to a policy choice.

Although this model represents reality in a logical way, reality is seldom neat. Real world processes may be incoherent, intermittent and dependent on the nature and severity of exogenous shocks of the day. The various phases usually get intertwined and individuals often identify a preferred solution even before they

identify the issue at stake. Jones *et al.* (2010) call this phenomenon “identification with the means”. It follows that people’s emotional orientation towards a specific solution (or political ideology) often determines the alternatives to be considered with the result that people will be very hesitant to accept certain information elements. Or, in the aphorism often used, if a person only has a hammer, everything becomes a nail.

During a recent research project Bonneau (2012) interviewed 27 organisations in the Western Cape. These organisations covered the whole spectrum from farming unions (including Agri Wes Cape, Agri Mega, NAFU, industry organisations), trade unions (BAWSI, Fawu, Sikhula Sonke, Prestige Farm Worker Council), non-governmental organisations (Sanco, Surplus People’s Project, Women on Farms) to institutional organisations such as government departments and academic institutions (Plaas). During these interviews a number of sensitive issues such as housing, evictions, socio-economic conditions on farms, access to land and farm tenure were mentioned by all. Nevertheless, he also found that all agreed on certain commonalities such as research, training and capacity building for workers and for farmers, education as well as social upliftment on farms. These commonalities may form the foundation to address the sensitive issues.

5. CONCLUSION

The F.R. Tomlinson Commemorative Lecture is an event annually organised by the South African Association of Agricultural Economists to provide a platform for the exchange of ideas. The 2012 lecture turned the attention to the public choice, institutional and policy network elements of the provinces of South Africa.

The powers of provinces, diversity of provincial characteristics and scope for experimentation should be embraced. Rather than attempting to force all provinces into the same mode, allowance ought to be made for these differences, and it must be accepted that each province will try diverse solutions to South Africa’s problems. Of course, with experimentation the possibility of failure should be accepted and appropriate exit strategies discounted. Yes, it will require that agricultural economists should develop a more nuanced and diverse approach in addition to nurturing multiple networks. However, as we are “agricultural economists” our strength has always been that we could make sense out of complex, messy and unpredictable (biological) systems.

NOTES

- 2 “Poor” is defined as households in the GHS with an expenditure of less than R1 200 per month.

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