Rapid Capacity Audit of the Western Cape Natural Resource Departments

The study area

The study is located in the Western Cape Province (WC), a province in the south west of South Africa with a population size of 5,223,900 by 2010. Its economy is divided into four primary sectors, agriculture, manufacturing, financial services and tourism. The WC has diverse topography and climate and this variability and diversity have contributed to the evolution of some of the richest biodiversity in the world. It is home to the Cape Floristic Region (CFR), the only floral region in the world to occur wholly within the borders of a single country.

Importance of biodiversity:

There are more than 9000 described plant species within the CFR and >70% of these occurring only here and nowhere else on earth (I.e. they are endemic to the biome). In addition the province houses portions of the Succulent Karoo Biome - the most diverse semi-arid region in the world. These biomes are both globally and locally recognised as priority biodiversity hotspots and are of international conservation significance.

South African agriculture

Agriculture is one of the economic cornerstones for developing nations globally and with ever increasing human populations it is the economic sector that must meet the nutritional needs of the 6 billion people that currently inhabit this planet, with a population expected to reach 9 billion by 2050, food production will need to increase by a phenomenal 70% to meet this growing demand. The United Nation's Food and Agriculture Organization (FAO) predicts an additional 6 million ha's/ year of agricultural expansion is required over the next 30years to meet these demands, with sub Saharan Africa estimated to hold up to 60% of the world's remaining uncultivated areas suitable for farming (UN FAO, 2010).

South Africa is no different to the rest of the world; we will need to provide for the people who inhabit this country from the agricultural resource base available to us. Agricultural land is the most important economic component of South Africa's natural resource base and commercial agricultural land use dominates the rural landscape and economy of the Western Cape.

The province produces between 55% and 60% of South Africa's agricultural exports, valued at >R7 billion per year ≈20% of national production. The October 2001 census puts the population of South Africa at 44 819 778 people and the arable land utilised at 12 900 122 or ≈3.47 ha's per person. Nationally the agricultural sector together with forestry, fishing and hunting contribute 3% to GDP (Abstract of Agric Statistics 2010).

Agriculture is a key sector for the maintenance and creation of employment opportunities, attracting foreign investment and in stimulating further research (Niemand 2011). In the October 2001 census this sector together with hunting, forestry and fisheries accounted for an estimated 960 000 economically active people country wide with an estimated 628 200 farm labourers and domestic workers living on farms (Abstract of Agric Statistics 2010).

Custodians of our natural assets

In the context ownership, South Africa's agricultural sector is the central entity entrusted with the future health of the South Africa's natural assets. In a nutshell this sector has an pivotal role as custodian of our natural assets responsible for the protection and sustainable utilisation more than 70% of our landscape and the biodiversity, including water and soil resources. .These natural resources are viewed as valuable natural capital or biodiversity assets for our country {conservatively estimated at value of R27 billion p/a for the ecosystem goods and services that they provide (Turpie *et al* 2003}.

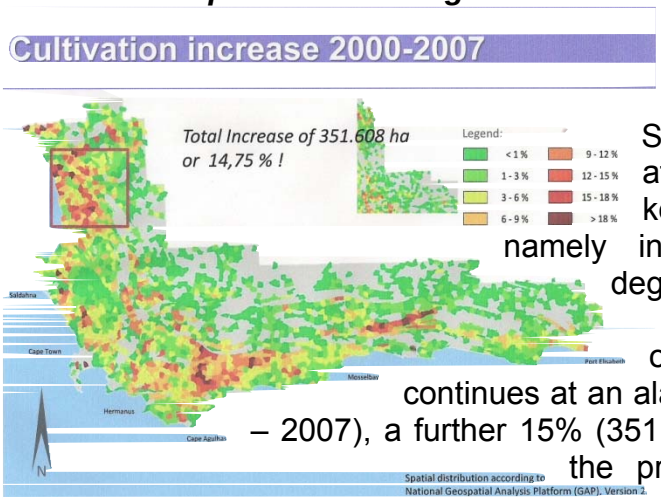
At a provincial scale the biodiversity dependent industries including for example commercial intensive and extensive agriculture, tourism, fisheries, conservation etc. in the Western Cape are estimated to have a value in the region of R 9.4 billion, and nature based tourism in the province has an estimated value of R 7.4 billion per annum (Maree & Vromans 2010).

Agricultural impacts

Agricultural landuse has a significant footprint and impact on the natural area it displaces for economic pursuits in terms of the returns per unit area when compared to many other economic pursuits. It is a leading cause of habitat transformation, and when these areas are mismanaged or over utilised, the impact of the sector becomes a leading cause of degradation of natural habitats the world over.

The Western Cape has a total land surface area of 12 938 600 ha's, in 1991 farm land accounted for 11 560 609 ha's or 89.3% of the total available area, all under private ownership. Of this available farm land, potential arable land amounts to 2 454 788 or 19% of the total available area. Land utilised to date for commercial agricultural pursuits amounted to 2 126 342 ha's or 86.62% of the available arable land. (Abstract of Agric. Statistics 2010). It is no coincidence that many of the most threatened habitats occur in these arable soils and the Western Cape is not only blessed with one of the most biodiverse biomes on the planet but has the dubious distinction of the highest extinction rate of species globally (Niemand 2011).

A Western Cape overview – agriculture as a key driver of habitat loss



Habitat loss and transformation is the key driver of species loss in South Africa with just under 6000 taxa affected, far outstripping the two other key drivers of change and habitat loss, namely invasive alien species and habitat degradation, which jointly account for more than 2500 taxa each. The rate of transformation and habitat loss continues at an alarming pace, within just 7 years (2000 – 2007), a further 15% (351 608 ha's) of the total surface area of the province has been transformed. The transformation of these habitats are primarily located around three agricultural nodes- namely along the west coast, the eastern portion of the Overberg and in the Langkloof – See Figure 1. Cultivation Increase 2000-2007 (Courtesy of a SANBI presented by Jeff Manuel in June 2011).

At certain localities within these "hotspot", areas of high biodiversity occur with the associated increasing threat of transformation, here land use change is occurring at a rate that exceeds 18% of the available land surface area. These statistics illustrate the dire need to balance agricultural expansion with the effective management of natural resources and protection of critical biodiversity areas (Courtesy of a SANBI presented by Jeff Manuel in June 2011).

Findings of a provincial spatial assessment

Data supplied by the South African National Biodiversity Institute (SANBI) in June 2011, indicated that only six clearing applications (i.e. clearing of virgin land for ploughing) were concluded in 2006, amounting to <500ha's and that since 2006

there have been fewer than 10 applications approved to clear natural vegetation, totalling 16 applications for legally approved new agricultural expansion within the last 10 years. Pending applications dating back to 2003 amount to approx. 2500 ha's.

However, a spatial assessment shows an estimated 8823.89 ha's of natural vegetation was transformed in that single year (2006 - 2007 province wide, leaving >5000 ha's of cleared area unaccounted for in terms of legal approval, clearly illustrating the significant extent of illegal ploughing occurring within the Province. (≈2/3^{rds} of all expansion in 2006 – 2007 was potentially illegal).

Contextualising the problem

In order to determine the extent of the problem and understand what is driving this behaviour further insight and understanding is required to determine why these activities are not being effectively monitored and prosecuted by the departments mandated to monitor and enforce compliance of the law under the Conservation of Agricultural Resources Act (CARA) and the National Environmental Management Act (NEMA) to ensure the sustainable development of our natural resource base in rural agricultural settings.

This report aims to provide further insight and understanding of where possible interventions are required to address this issue. The first component of the report deals with a case study on the west coast of the Western Cape Province and thereafter the report reviews the current capacity available to the departments tasked with the regulation of development and upholding the laws.

Furthermore there is a need to determine how agricultural expansion occurs within the regulatory legal frameworks of authorisation and permits to support appropriate future expansion and development. In addition to the rapid review, this report seeks to discern what the current status is i.t.o current capacity to service relevant department's mandates and what the likely capacity should be in each of these departments to be able to fulfil their mandates and give effect to a streamlined efficient and effective process of obtaining legal approval for intended agricultural expansion, and effective monitoring and enforcement of subsequent compliance.

Responding to the challenge.

The challenge to be met is to manage this expanding agricultural footprint, whilst reducing the impact of this sector on the natural resources and ensuring a landuse pattern that promotes sustainability.

Meeting this challenge has required the development of a suite of environmental and agricultural planning legislation and management strategies to conserve the natural resource base. With particular reference to the issuing of ploughing permits and the transformation of natural vegetation, South Africa began developing environmental legislation through the Council for the Environment's publication, *Integrated Environmental Management in South Africa*, published in 1989. This publication marked the introduction of the concept of Integrated Environmental Management to South Africa for the first time.

The resultant Environmental Conservation Act, provided for the promulgation of the Environmental Impact Assessment Regulations. The regulations however were a long time in coming and were first legislated on the 05 September 1997. Further refinement of environmental legislation followed with the promulgation of the National Environmental Management Act in 1998, and Regulations 386 &387 listed activities provided the initial reference to the transformation of natural vegetation. These

regulations set thresholds, above which, clearing of natural vegetation were legally considered to have significant environmental impact. Further refinement of the regulations followed in 2010 with the promulgation under NEMA of a new set of listed activities under Regulations 544, 545 and 546. In these regulations, the listed activities became more integrated with national and regional biodiversity planning, proclaimed conservation and heritage areas, listing notices of threatened ecosystems and expressly with due consideration for thresholds governing the triggering of a listed activity for proposed agricultural development in relation to the threat status or conservation significance of the natural vegetation in question.

How successful has the response been – a West Coast case study?

Whilst South Africa has comprehensive and world leading laws and regulations supported by clear administrative processes, policies and guidelines, the implementation and compliance is not yet working efficiently or effectively. Provincially, the loss of indigenous vegetation is quoted as "a serious problem and serious challenge for agriculture and biodiversity, for which these preventative measures are applied with measured success" (Niemand 2011).

The rapid assessment undertaken as part of this study lends weight and support to that statement. To gain an understanding of the extent of natural vegetation cleared between 2006 and 2009 a desktop GIS study of aerial photography was undertaken for the years 2006, 2007 and 2009 in a defined study area. It must be noted that this is a snapshot view of the current rate of transformation that will need to be ground truthed but it does supply a robust indication of the current trends.

The study area covered an area of 1 326 160.2 ha's of the West Coast of the Western Cape. The area has been subjected to extensive clearing and prior to 2006 an estimated 438 440.8 ha's or 33.1% of the total land surface had been transformed. The trigger for the rapid expansion resulted from the reticulation of the ESKOM electricity grid to the area in the early 1980's.

The data generated by digitising the aerial imagery in a GIS between 2006-2009 revealed that an additional 10 659.0 ha's of natural vegetation has been cleared within the study area, or 2664.75 ha's per year, or 7.3 ha's per day. Previous data generated by CapeNature in 2006 showed that for the period of time between 1989-2004 the rate of clearing calculated from a similar GIS exercise was 2.7 ha's per day. The new finding therefore shows that the agricultural sector has accelerated its rate of clearing within the study area by >100%.

During this period of time (2006-2008) 8 applications within the study area were finalised (decision reached) by the National Department of Agriculture totalling 339.0 ha's. The results from examining the dataset from the NDA show that during 2005 the department received and processed 66 applications for the province as a whole, totalling 4331.40 ha's. Of the 66 received, 34 applications (half of all the applications totalling 3593.0 ha's) were from the West Coast within the study area. The number of applications received by the authorities is therefore minimal, and does not account for even 1/3rd of the 10 659 ha's habitat transformed in recent years. With reference to the West Coast study area only 3.1% of the area transformed obtained legal authorisation from the NDA and the other mandated departments entrusted with the responsibility of ensuring sustainable natural resource utilisation and development.

The rate of transformation in the west coast region of the Western Cape has increased by >100% {from 2.7 ha's per day (1989-2004) to 7.3 ha's per day (2006-2009)}. Only 1/3rd of all expansion has been evaluated by the NDA therefore potentially 2/3^{rds} of biodiversity loss in this region has resulted from illegal clearing (2006-2008).

At a province wide scale, the NDA database applications totalling 20 854 ha's of development over a 10 year period (1999-2008) were received by the department with regard to obtaining ploughing permits.

A recent GIS remote sensing study by SANBI (Manuel 2011) show that for a similar period of time approx. 351 608 ha's was transformed province wide (i.e. only 6% of the habitat transformation has been assessed by the relevant departments since the enactment of the Environmental Conservation Act Listed activities in 1997 and the NEMA Regulations in 2006 & 2010).

At producer level within the landscape one is confronted with the argument that transgressors were oblivious to the requirements under law. When examining the NDA database however it is clear that the promulgation of the 2006 NEMA listed activities shows a brief spike in applications submitted in order to obtain plough permits prior to the promulgation of the new regulations in 2006. This demonstrates that new legislation in terms of the new 2006 regulations was a driver of habitat transformation and / or information on the requirements of the new NEMA regulations were well communicated and understood at ground level. Further investigation would be required to interrogate this assumption further and to determine what other drivers (i.e. market related demand for expansion etc… were influencing these rapid development trends).

At produce level within the agricultural sector, the administrative process and in particular, the time it takes to provide a decision on an application is often presented as a reason for circumventing the requirements of the law. Examination of the NDA database shows that the involvement of DEA&DP and DWA in the application process appears to increase the application process to an ≈8 month period (for the Basic Assessment Report) or 14 months for Scoping for EIA for the former and when the DWA is involved in issuing a water license the process can take anything between 12 & 30 months to conclude. The variability in the time taken to process application in the DWA are primarily associated with staffing capacity constraints in the Pretoria Offices of the DWA. There are therefore real grounds for this complaint.

An assessment of capacity.

National Department of Agriculture

The current capacity shows significant understaffing and insufficient capacity of the Resource Auditors and is not conducive to efficient, effective rapid turn around time for submissions and is driving frustrations with complying to the legal requirements i.t.o. development. A single post was filled (in an acting position) when this rapid assessment was done, while three posts were being advertised. The acting position has since become vacant again (end of June), thus leaving the **National Department of Agriculture without any representative in the Western Cape.** Even if new staff members are successfully appointed, there are no experienced personnel to train and capacitate the new incumbents, which is likely to further impact the backlog and extended time periods for commenting and decision making on applications received and potentially poor decision making on applications received.

Department of Water Affairs

The current capacity of the DWA is also insufficient and unstable. The licensing department is currently regarded as a temporary organisational structure under a Deputy Director with a number of temporary staff. Furthermore, locally these temporary staff members appear to be capacitated to deal with water license applications but there is an apparent lack of capacity of the head office in Pretoria to process applications causing significant delays in processing and finalising these applications.

The findings of this study revealed that in the period of time 2006-2011, only 25 applications have been

approved and that there is currently a backlog of 325 water license applications. The Provincial Director of Regulations position is vacant and currently two staff members are responsible for this function in the province which is a task impossible and unacceptable.

Key performance areas

Ensuring that ploughing permits are adequately evaluated prior to authorisation is reflected in the Key Result Areas and Key Performance Areas of the all of the departments.

Administrative Process

The administrative process is well developed but hindered by capacity constraints primarily in the national departments. The administrative process shows that collaboration between departments is provided for, however it is in an *ad hoc* manner and dependent on the individual efficiency of particular staff within the department. A formal interdepartmental MOU (still under development) setting out specific requirements for intergovernmental collaboration with timeline bound administrative process is long overdue. Anecdotal evidence received during the interviews indicated that this process began in early 2006.

Administrative process for compliance monitoring and law enforcement are in place. The NDA can issue an immediate directive to correct illegal activities and the in the DWA, alleged illegal activities can be reported through the National Call Centre Number, the DWA's regional contact numbers, Water User Associations (WUA), Catchments Managers and established CMA's. The WUA have all the necessary delegations and may issue a directive to the transgressor of the NWA. The DEA&DP's Directorate: Environmental Compliance and Enforcement ("the Directorate") monitors compliance with a warning letter, Directives in terms of section 28(4) and Compliance Notices ("CN") in terms of section 31L of the National Environmental Management Act, 1998 ("NEMA"), can be issued. C.M.E monitors compliance through inspections or verification & validation "V&V" - those found incompliant are issued notices through the following administrative process; firstly Non-Compliance Notice's, then sequentially a Notice to Issue Directive "Pre-Directive" followed by a Directive under Sections 19 ,20,53,54 and 118 of the NWA to rectify the unlawful activities by the water user/alleged transgressor.

Capacity to implement the mandate – law enforcement and compliance.

We were provided with no evidence that verification/ monitoring inspections were undertaken prior to issuing permits or once permits had been issued. Furthermore for the time period 2006 to 2011 there is no record of the NDA issuing a directive to cease ploughing. For transgressions related to water use the DWA has issued 10 pre-directives, seven directives and prosecuted a single criminal case, under Section 151(1) of the NWA 36 of 1998. In the same period of time the DEA&DP have issued 2 directives.

At present control officers are reactive and investigate complaints from other government departments, agencies or civil society only. The enforcement arm of these departments therefore has no presence in the landscape to provide a deterrent to potential transgressors. The lack of visibility and interaction with organized agriculture and the agricultural sector in general by the compliance monitoring and law enforcement arms is a key determinant in the lack of adherence to the law by the agricultural sector in the province. No fines have been issued in the province to date and no court cases are pending in the NDA and the DEA&DP. There has only been a single court case concluded by the DWA.

The lack of enforcement of the law to provide the deterrent for potential criminals is a key determinant in the current situation of rife illegal activities related to ploughing permits. The status quo regarding illegality in terms of the Water Act is impossible to discern at present due to a complete lack of information.