

Tax incentives for South African wine producers investing in environmental conservation

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Preface

I would like to thank my Creator, for giving me the perseverance, wisdom and knowledge to complete this academic journey.

I would like to thank my study leader, Professor Karina Coetzee, who helped and motivated me in completing this research.

I would also like to thank my loving parents and my brother for their continuous support all through my life.

Abstract

There is an increasing focus on environmental conservation worldwide, evidenced by such events as the signing of the Kyoto Protocol by developing countries, and by consumers becoming more environmentally conscious. The purpose of this study was to investigate how government could, through tax law, incentivise businesses to invest in environmental conservation. One of the major South African industries contributing to the GDP is the wine industry. South Africa, new in world wine production, is ranked among the top 10 wine-producing countries, together with countries such as Australia. The average foreign consumer is more environmentally conscious, which means that South African wineries also have to become environmentally aware to ensure that their products are competitive in the foreign markets. A negative aspect of investing in environmental conservation is that a substantial upfront capital investment is normally required, which could lead to wineries not investing unless they can see a significant benefit as a result.

Given this, the purpose of this study was to determine whether or not there is an income tax benefit for wineries when investing in environmental conservation in terms of the Income Tax Act no.58 of 1962 (hereafter “the Act”). Government can, through tax law, either reward people for doing the right thing or punish them by imposing taxes for doing the wrong thing. The sections of the Act that have been identified as incentivising environmental conservation are Sections 11D, 12B, 12K, 12L, 37B and 37C, all with specific requirements before the incentives can be used.

The study contains an analysis of the type of environmental conservation that wineries can carry out and considers whether those conservation activities would enable them to use the incentives stated in the Act. Some of the environmental conservation activities identified that wineries could perform include the use of solar power to minimise their energy consumption, thereby reducing their impact on the environment. Further, there are industrial codes which encourage recycling and waste management, certain aspects of which would enable a winery to use some of the sections in the Act.

The incentives available in the Income Tax Acts of other wine-producing countries, such as France, Australia and the Oregon state in the USA, were also reviewed to see how the incentives in their Acts compare with those in the South African Income Tax Act.

Lastly, a limited empirical study was conducted to determine the wineries’ perspective in respect of the incentives indicated in the Act and whether or not they find that the incentives encourage them to carry out further environmental conservation.

Key terms

Tax, incentives, environmental, conservation, South Africa, Kyoto Protocol, Income Tax Act, Australia, France, Oregon, vinification, wine, wineries.

Abbreviations and acronyms

Aus. Tax Act – Income Tax Assessment Act no.38 of 1997

AusIndustry - Australian Government's specialist business program delivery division in the Department of Industry, Innovation, Science, Research and Tertiary Education.

BRC – British Retailer Consortium

BWI – Biodiversity and Wine Initiative

CER – Certified Emission Reductions

CMD – Clean Development Mechanism

CO² – Carbon Dioxide

EU – European Union

GDP – Gross Domestic Product

GHG - Greenhouse Gases

GTC – The General Tax Code of France

IEIA – International Energy Information Administration

IPW – Integrated Production of Wine

R & D – Research and Development

SANEDI – South African National Energy Development Institute

SARS – South African Revenue Services

SAWIS - SA Wine Industry Information & Systems

The Act – The South African Income Tax Act no. 58 of 1962

UNFCCC - United Nations Framework Convention on Climate Change

Winetech – The Wine Industry Network of Technology

Contents

Preface **i**

Abstract **ii**

Key terms **iii**

Abbreviations and acronyms **iii**

CHAPTER 1 INTRODUCTION **1**

1.1 Introduction **1**

1.2 What is the role of taxes in conserving the environment? **2**

1.3 Wine as a focus of industry **3**

1.4 What part does the wine industry play in GHG emission? **4**

1.5 Research question **5**

1.6 Objective **6**

1.6.1 Main Objective **6**

1.6.2 Secondary Objectives **6**

1.7 Research Methodology **6**

1.8 Chapter Overview **7**

CHAPTER 2 SOUTH AFRICAN TAX INCENTIVES FOR ENVIRONMENTAL CONSERVATION **9**

2.1 Introduction **9**

2.2 The definition of ‘environmental conservation’ **9**

2.3 Sections within the Act identified as relating to environmental conservation **10**

2.3.1 Section 11D, deductions in respect of scientific or technological research and development **10**

2.3.2	Section 12B, deductions in respect of certain machinery, plant, implements, utensils and articles used in farming or production of renewable energy	11
2.3.3	Section 12K, exemption of certified emission reductions.....	12
2.3.4	Section 12L, allowance for energy efficiency savings.....	13
2.3.5	Section 37B, deductions in respect of environmental expenditure	14
2.3.6	Section 37C, deductions in respect of environmental conservation and maintenance.....	15
2.4	Conclusion.....	16
CHAPTER 3 ENVIRONMENTAL CONSERVATION OPTIONS FOR WINERIES AND THE INCOME TAX IMPLICATIONS FOR THESE		17
3.1	Introduction	17
3.2	Regulatory codes in the wine industry that encourage environmental conservation.....	18
3.3	Instances in the vinification process when environmental conservation can be implemented	19
3.4	The specific income tax incentives dealing with environmental conservation.....	22
3.4.1	Deduction in respect of scientific or technological research and development.....	22
3.4.2	Deduction in respect of certain machinery, plant, implements, utensils and articles used in farming or production of renewable energy.....	23
3.4.3	Exemption of certified emission reductions.....	24
3.4.4	Allowance for energy efficiency savings	24
3.4.5	Deductions in respect of environmental expenditure	25
3.4.6	Deductions in respect of environmental conservation and maintenance	25
3.5	Conclusion.....	26

CHAPTER 4	THE INCOME TAX IMPLICATIONS FOR ENVIRONMENTAL CONSERVATION IN OTHER WINE-PRODUCING COUNTRIES	28
4.1	Introduction	28
4.2	Sections in Australian legislation on environmental conservation	28
4.2.1	Specific sections with regards to research and development incentives	29
4.2.2	Specific sections with regards to soil erosion conservation	30
4.2.3	Other sections and repealed sections	31
4.3	Sections in French legislation regarding environmental conservation.....	31
4.3.1	Tax credit for research expenses incurred by the industrial and commercial or agricultural industries.	31
4.3.2	Tax reduction granted for expenditure incurred in preservation of natural heritage	32
4.4	Sections in the Oregon state legislation regarding environmental conservation.....	32
4.4.1	Tax credits available in respect of the use of alternative fuel devices	32
4.4.2	Tax credits available in respect of the production of biomass.....	33
4.4.3	Tax credits available in respect of a pollution controlled facility	33
4.4.4	Tax credits available in respect of an energy conservation facility.	34
4.5	Conclusion.....	35
CHAPTER 5	SOUTH AFRICAN WINERIES' OPINION ON ENVIRONMENTAL CONSERVATION AND THE ASSOCIATED TAX BENEFITS.....	37
5.1	Introduction	37
5.2	Selection of wine farms.....	37
5.3	Questionnaire sent to wineries.....	37
5.3.1	Conservation performed by winery B.....	38

5.3.2	Tax incentives available to winery B based on their environmental conservation initiatives	39
5.4	Other information gathered from the media relating to South African wineries' environmental conservation	40
5.5	Conclusion.....	41
CHAPTER 6	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	42
6.1	Introduction	42
6.2	Conclusion on the secondary objectives	43
6.2.1	Conclusion on the South African income tax investigation when investing in environmental conservation	43
6.2.2	Conclusion on what will be considered environmental conservation from a winery's perspective and the income tax results thereof in South Africa	44
6.2.3	Conclusion on incentives in the Income Tax Acts of other wine producing countries.....	46
6.2.4	Conclusion to the wine industry's perspective on environmental conservation and tax	47
6.3	Overall conclusion	47
6.4	Recommendations	48
Bibliography	49
Annexure	53
Annexure 1: Questionnaire sent to wineries	53

List of Tables

Table 1: Top 10 World Wine Production by Country3

Table 2: General categorization of intrinsic waste sources during the vinification processes....20

Table 3: General categorization of extrinsic waste sources during vinification processes20

Table 4: Tabled view of results received from questionnaire received from winery B.40

Table 5: Comparison between tax incentives available and codes applicable to wineries)46

List of Figures

Figure 1: CO₂ emissions in tons for South Africa compared with the top five global emitters.....1

Figure 2: The Sustainable Wines of South Africa Seal19

CHAPTER 1 INTRODUCTION

1.1 Introduction

There is a growing concern, both nationwide and worldwide, when it comes to sustaining the environment and ensuring that both producers and consumers minimise their environmental impact. The importance of this was emphasised when the Kyoto Protocol was enforced in February 2005, and was accepted by a list of nations, including South Africa (UNFCCC, 2012:1). An objective of the Kyoto Protocol is to stabilise greenhouse gasses (GHG) at a level that will have no material impact on the climate system (UNFCCC, 2008:12).

Under this protocol, all the parties that accepted it must co-operate in the areas of:

- (a) The development, application and diffusion of climate-friendly technologies;
- (b) Research on and systematic observation of the climate system;
- (c) Education, training, and public awareness of climate change; and
- (d) The improvement of methodologies and data for GHG inventories (UNFCCC, 2008:12).

In 2009, the International Energy Information Administration (IEIA) estimated that South Africa was the 12th highest carbon dioxide (CO₂) emitter globally. (This was based only on CO₂ emissions from energy consumption and did not include other GHGs). The graph below contrasts South African CO₂ emissions with the top five global carbon emitters. (Urban Earth, 2012:5)

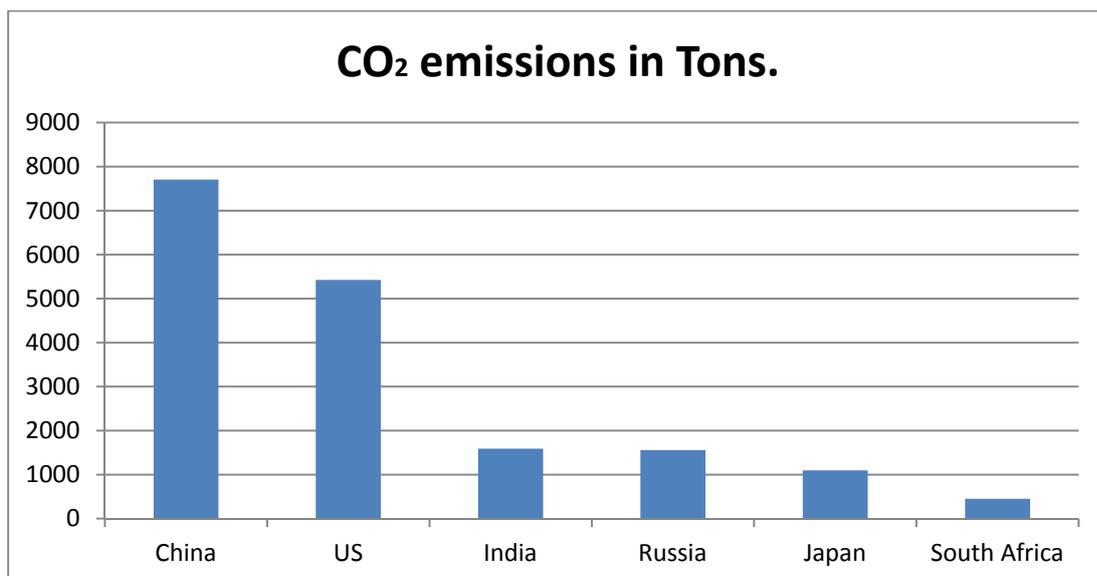


Figure 1: CO₂ emissions in tons for South Africa compared with the top five global emitters (Urban Earth 2012:5)

While South Africa contributes only 1.49% to global CO₂ emissions, its per capita emissions are high relative to many other countries. According to the IEIA 2009 study, South Africa's per capita emissions are 9.18 tons of CO₂, whereas the world average is 4.49 CO₂ tons per capita (Urban Earth, 2012:5).

1.2 What is the role of taxes in conserving the environment?

One way in which government can force consumers and producers to abide by certain policies is by means of the tax system, whereby they can both reward good behaviour and penalise bad behaviour. Applying their policies can mean paying less tax or paying more taxes if one does not apply their policies. For instance, if we were to consider sin taxes, urging consumers to drink and smoke less, government could increase the taxes on alcohol and cigarettes (SARS, 2012:12). On the other hand, to create jobs and improve skills development, government encourages companies to award learnership agreements to employees (De Koker & Williams, 2014).

When we take into account the number of additional deductions in the South African Income Tax Act (58 of 1962) (the Act), it would appear, when it comes to green expenditure, that government acknowledges the high cost of "going green" and saving energy. Therefore, in creating a tax-friendly environment for taxpayers who are complying, government shows that they, too, are joining the Green Movement (Schubert, 2009:30).

Two of the relatively new deductions stated in the Act that are specifically designed for this purpose are Section 12K and Section 12L. The Kyoto Protocol allows for clean development mechanism projects, which satisfies certain requirements to yield GHG reduction credits. These reduction credits can be sold to developed countries, which can use them to meet their legally binding emissions reduction obligations. Certified emission reductions are a parallel revenue source for clean development mechanism projects, and can render otherwise marginal projects viable (De Koker & Williams, 2014). The revenue generated through these clean development mechanism projects will however be exempt from income tax in terms of section 12K. A Section 12L deduction has been introduced because the primary energy sources in South Africa are fossil-fuel based, and have a negative impact on the environment. Energy-efficiency savings are therefore seen as one of the low-hanging fruits available for addressing concerns relating to climate change and energy security. Accordingly it was decided to introduce a tax incentive to encourage greater levels of energy efficiency savings. The conversion to new, more energy-efficient technologies involves substantial capital expenditure, with long pay-back periods. This discourages businesses from making investments and being more energy efficient (De Koker & Williams, 2014).

1.3 Wine as a focus of industry

One of the biggest contributors to the South African economy is the wine industry. It is one of the few industries that are genuinely concentrated outside metropolitan areas and it therefore plays a vital role in regional development, employment generation, corporate investment, business growth and tourism (Bruwer, 2003:424). According to a study commissioned by the SA Wine Industry Information & Systems (SAWIS), published in December 2009, 275,606 people were employed both directly and indirectly in the wine industry in 2008, including farm labourers, those involved in packaging, retailing and wine tourism. The study also concluded that, of the R26.2 billion gross domestic product (GDP) contributed by the wine industry to the regional economy, some R4.3 billion was generated indirectly through wine-tourism, which constitutes 16% of the GDP contributed by the wine industry. The growth in contribution to the GDP has been at least 10% per annum since 2003 (WOSA, 2012:1).

The wine industry is of both national and international importance, according to *Wines of South Africa* (WOSA, 2012:1). In 2011, South Africa was ranked as number eight in overall volume of production in the world and produced 3.71% of the world's wine. The other top 10 wine producing countries in 2011, as shown in Table 1, were France, Italy, Spain, the United States, Argentina, Australia, Germany, Chile and Portugal (Wine Institute, 2012:34).

Country	2011 (litres)	% of total litres in 2011
World Total	26,656,100	100.00%
France	4,963,300	18.62%
Italy	4,258,000	15.97%
Spain	3,498,500	13.12%
United States	2,681,500	10.06%
Argentina	1,547,300	5.80%
Australia	1,101,000	4.13%
Chile	1,046,000	3.92%
South Africa	990,000	3.71%
Germany	961,000	3.61%
Portugal	592,500	2.22%

Table 1: Top 10 World Wine Production by Country (Wine Institute, 2012:34)

Some structural changes took place in the South African wine industry after Apartheid ended, such as the lifting of production quotas, import protection and price support which was in place in order to prevent overproduction once lifted it allowed the wine industry to expand and focus on quality rather than volume. South Africa now emerged as a new world wine producer along with other countries like Chile and Spain. This enabled South Africa to compete in the

international market with some old-world producers like France and Italy (Giuliani, Morisson, Pietrobelli & Rabellotti, 2010:752).

Another factor to take into account is the type of consumers who would buy wine, and whether environmental conservation would play any role in their decision. According to a study by Pugh and Fletcher (2002:80), the bulk of wine consumers fall into the age group of 40-60, with the majority being women. This generation is referred to as the 'Baby Boomers', a group which is regarded as sensitive to environmental concerns. They are the original activists and pro environmentalists (Pugh & Fletcher, 2002:80).

South Africa exports over a third of its wine to the United Kingdom (Ponte & Ewert, 2007:27), and, because of the increasing emphasis on food standards, most British supermarkets now demand that fresh produce is traceable. They also require adherence to strict codes of farm hygiene, environmental protection and worker welfare (McEwan & Bek, 2009:257).

It is thus clear that the wine industry is an important contributor to exports. From the international perspective, consumers from the United Kingdom enjoy South African wine but are nevertheless concerned about environmental conservation.

1.4 What part does the wine industry play in GHG emission?

To be able to assess the impact of the wine industry on GHG emission, the International Wine Industry Greenhouse Gas Protocol and Accounting Tool was developed through a partnership between the Wine Institute of California, New Zealand Winegrowers, South Africa's Integrated Production of Wine program and the Winemakers' Federation of Australia. This protocol and tool was created to establish a standard against which the industry could measure the carbon footprints of winery and vineyard operations of all sizes, worldwide (Provisor (Pty) Ltd, 2008:3). From research conducted to develop the protocol and accounting tool, it was evident that wineries have both direct and indirect GHG emissions and they are as follows:

- Emissions produced through the generation of heat, steam or electricity via the combustion of fuels in stationary equipment such as boilers or water heaters;
- Emissions that arise from chemical or physical processing. (Within the wine industry the fermentation of sugar which produces carbon dioxide is a good example);
- Emissions produced from burning fuel in mobile operating equipment such as cars, forklifts and tractors;

- Unintentional emissions of GHG from within a company through leaks and spills. These emissions are known as fugitive emissions. (In the wine industry fugitive emissions are most likely to be limited to leaks from HFC-based refrigeration systems); and
- Indirect GHG emissions are purchased power utilities, as this is not controlled or owned by the wineries or vineyards, such as electricity purchased from Eskom

(Provisor (Pty) Ltd, 2008:14-15).

There are thus various systems within a winery or vineyard which would cause the emission of GHG, and which could be limited if properly regulated or if capital investments were made to reduce it in the long run.

For South Africa to be able to adjust to global challenges posed by the international markets and in order to reduce the gap between other new world producers, the South African wine industry initiated a process of institutional renewal. Within this new institutional framework, various technical and scientific organisations play strategic roles. The Wine Industry Network of Technology (Winetech) has explicit responsibility for promoting and coordinating wine research, and is also the main funding body (Giuliani *et al.*, 2010:752; Booysen, 2010:1).

There are already international awards in the industry that reward wineries and vineyards contributing to green awareness and minimising their impact on the environment, such as the Drinks Business Green Awards (Crummy, 2012:1). These awards by drinks companies worldwide highlight and reward leadership in environment, sustainability and climate change. The award was designed to raise awareness of environmental issues in the wine industry and boost the role of influencing consumer behaviour. The Drinks Business Green Awards provide a high-profile platform for companies to showcase their positive commitment to the planet. With support from a range of influential supporting partners and an eminent panel of expert judges, the awards emphasise how sustainability is key to development in the drinks industry (Back, 2010:1).

1.5 Research question

From this the following research question can be formulated:

Is there any benefit for wineries from the perspective of South African tax when they invest in environmental conservation?

1.6 Objective

To address the research question in paragraph 1.5 above, the following objectives are formulated to answer the research question.

1.6.1 Main Objective

To determine whether there is a benefit for wineries from the perspective of South African tax when they invest in environmental conservation.

1.6.2 Secondary Objectives

The main objective in paragraph 6.1 above could be achieved by fulfilling the following secondary objectives:

- (i) To determine all South African tax incentives when investing in environmental conservation (Chapter 2).
- (ii) To determine what would be considered environmental conservation from a winery's perspective and the tax provisions in South Africa in respect of such investments (Chapter 3).
- (iii) To analyse what tax benefits there are for wineries in other countries (Chapter 4).
- (iv) To conduct a limited empirical study by sending out a questionnaire to selected South African wineries on whether they are aware of the tax benefits and whether this would affect their decision to invest in environmental conservation (Chapter 5).
- (v) A conclusion will be drawn as to whether there is a tax benefit from the South African perspective and whether that would influence wineries' decisions when investing in environmental conservation (Chapter 6).

1.7 Research Methodology

The mini dissertation will be conducted by applying a relativist view of the world in which the study will be conducted, bearing in mind that there are various circumstances and factors that will influence the study and the knowledge gained from it. Different considerations will be brought to bear on whether or not there is a tax benefit for wineries when investing in environmental conservation. The research would initially involve investigating whether or not there are incentives for any particular taxpayer when investing in environmental conservation. Following that, research will be conducted into what kind of environmental conservation wineries can invest in and whether there is a consequent tax benefit. Based on this, the research

paradigm that follows will be an interpretivist paradigm, as the purpose of the study is to gain an understanding of the incentives available to the wine industry when they invest in environmental conservation and whether or not wineries themselves consider that there is a benefit. A further aspect of this study will be to determine what comparative incentives are available in other wine-producing countries. Several of the research methodologies within the interpretivist paradigm will be used.

The post-structural or doctrinal research methodology will be used when assessing the incentives available in the Act for the taxpayer when investing in environmental conservation as well as the research conducted when determining what other incentives there are in other wine-producing countries. This will be a purely theoretical research approach, in that the applicable legislation will be examined.

The phenomenology or descriptive research methodology will be used when assessing what environmental conservation wineries can invest in and whether or not wineries consider that there are incentives available in the Act. This will be done partly in the review of literature and partly by sending out questionnaires to wineries to assess what they think exists.

This mini-dissertation was performed by solely focusing on environmental conservation in the wine industry and specifically focusing on the production of wine rather than the plant and grow of vineyards. The population group used when sending out the questionnaires was limited to five wineries within the Stellenbosch area.

1.8 Chapter Overview

This mini dissertation will consist of six chapters. Listed below are the chapters to be included in the study and a brief overview of their contents.

Chapter 2

Chapter 2 will consist of a literature review of the Act, focusing on environmental conservation.

Chapter 3

Chapter 3 will discuss what would be considered to be environmental conservation from a winery's perspective and how processes could be changed to ensure that the winery is more environmentally friendly. Further, the tax benefits for the wineries if they were to invest in environmental conservation will be listed.

Chapter 4

Chapter 4 will consist of a literature review of the tax benefits offered in other countries, making specific use of those countries' tax acts. These have been limited to the following countries, as this is a mini-dissertation:

- Australia
- France
- United States of America (USA), focusing specifically on the state of Oregon.

These countries have been chosen as they are seen as old and new world wine producers.

Chapter 5

Chapter 5 will be a limited empirical review of wine farms in South Africa to determine whether or not they are aware of tax benefits, and whether a tax benefit would influence their decision on investing in environmental conservation.

Chapter 6

Finally, in Chapter 6, a conclusion will be drawn on whether there is a tax benefit from the South African perspective and whether that would influence wineries' decisions on investing in environmental conservation.

The next chapter will consider what incentives or tax credits are available in the Act when a taxpayer invests in environmental conservation.

CHAPTER 2 SOUTH AFRICAN TAX INCENTIVES FOR ENVIRONMENTAL CONSERVATION

2.1 Introduction

One way in which government could implement certain policies for consumers and producers is through the tax system. They would either reward good behaviour or penalise bad behaviour. The taxpayer would pay less tax because they are applying the policies or would pay more taxes because they were not applying them. For instance, the sin taxes on alcohol and cigarettes were increased to encourage people to drink and smoke less (SARS, 2012:12). In order to create jobs and improve skills development, government encourages companies to award learnerships to employees (De Koker & Williams, 2014).

The objective of this research is to determine whether there is a benefit for wineries from the South African tax perspective when they invest in environmental conservation. To achieve this objective the following secondary objective is addressed in this chapter:

- (i) To determine the South African income tax incentives for a taxpayer when investing in environmental conservation (Section 1.6.2.).

The chapter will therefore investigate the Act to find any incentives for taxpayers when investing in environmental conservation.

2.2 The definition of 'environmental conservation'

According to the Oxford Dictionary, the definition of '**environmental**' is that it is an adjective "**relating to the natural world and the impact of human activity on its condition**" (Oxford University Press, 2012) (*Own emphasis added*).

The definition of '**conserve**' is to "**protect (something, especially something of environmental or cultural importance) from harm or destruction**" (Oxford University Press, 2012) (*Own emphasis added*).

According to the Oxford Dictionary, the meaning of environmental conservation would be to protect the condition of the natural world from harm or destruction or the impact of human activity.

There is no formal definition in the Act referring to environmental conservation, so the Act will be analysed according to the above derived definition.

2.3 Sections within the Act identified as relating to environmental conservation

The following sections of the Act have been identified as they could be used against all capital and operating expenditure regarding environmental conservation.

- 11D - Deductions in respect of scientific or technological research and development;
- 12B - Deduction in respect of certain machinery, plant, implements, utensils and articles used in farming or production of renewable energy;
- 12I - Additional investment and training allowances in respect of industrial policy projects;
- 12K - Exemption of certified emission reductions;
- 12L - Allowance for energy efficiency savings;
- 37B - Deductions in respect of environmental expenditure;
- 37C - Deductions in respect of environmental conservation and maintenance.

Each section will be analysed individually in order to determine the requirements to be met for the section to apply and for the allowance or deduction to be available when such sections do apply. Section 12I will not be analysed, as it specifically excludes the manufacturing of wine from the definition of industrial projects.

2.3.1 Section 11D, deductions in respect of scientific or technological research and development

When examining Section 11D of the Act, the important consideration is the meaning of ***‘research and development’*** with respect to this section in the Act. For the purposes of this section ***‘research and development’*** means

“systematic investigative or systematic experimental activities of which the result is uncertain for the purpose of—

- (a) *discovering non-obvious scientific or technological knowledge;*
- (b) *creating or developing—*
 - (i) *an invention as defined in section 2 of the Patents Act;*

- (ii) *a functional design as defined in section 1 of the Designs Act capable of qualifying for registration under section 14 of that Act;*
 - (iii) *a computer program as defined in section 1 of the Copyright Act which is of an innovative nature; or*
 - (iv) *knowledge essential to the use of such invention, functional design or computer program other than creating or developing operating manuals or instruction manuals or documents of a similar nature intended to be used in respect of that invention, functional design or computer program subsequent to the research and development being completed; or*
- (c) *making a significant and innovative improvement to any invention, functional design, computer program or knowledge contemplated in paragraph (a) or (b) for the purposes of—*
- (i) *new or improved function;*
 - (ii) *improvement of performance;*
 - (iii) *improvement of reliability; or*
 - (iv) *improvement of quality,*
- of that invention, functional design, computer program or knowledge.”*

This allows a deduction from taxable income of 150% of operational expenditure actually incurred by the taxpayer directly in respect of activities undertaken in South Africa as defined in Section 11D(1)(a). There is also a 50:30:20 capital deduction available for any building, part of a building, machinery, plant, implement, utensil, article or improvement to them that is new and unused when brought into use by the taxpayer solely and directly for the purposes of research and development as defined in Section 11D(1)(a) (Clegg & Stretch, 2014). Although this section does not solely relate to expenditure incurred in respect of environmental conservation it has been included in the study as it would be applicable if a taxpayer would develop a new process within their business which could lead to further environmental conservation.

2.3.2 Section 12B, deductions in respect of certain machinery, plant, implements, utensils and articles used in farming or production of renewable energy

Section 12B of the Act applies to:

- Farming equipment, machinery, implements, utensils and articles;

- Machinery, plant and equipment used by the taxpayer in the production of bio-diesel, or bio-ethanol products;
- Machinery, plant, implements, utensils or articles used by the taxpayer in the generation of electricity from wind, sunlight, gravitational water forces and biomass comprising organic wastes, landfill gas or plants; or
- Improvements to any of the items mentioned above that are used as contemplated.

This allowance is available in respect of the cost of a qualifying asset that is owned by the taxpayer and used by him in:

- Carrying out farming operations;
- The production of bio-diesel or bio-ethanol products; or
- The production of electricity.

This allowance applies only to new, unused assets and can be granted only once in the hands of the taxpayer. The capital allowance granted is 50% in the first year of assessment, 30% and 20% in the two successive years of assessment on the cost of acquiring the qualifying asset; this would be assets that are used either in farming, or in the production of renewable energy or bio-ethanol or bio-diesel (Clegg & Stretch, 2014; De Koker & Williams, 2014).

2.3.3 Section 12K, exemption of certified emission reductions

As mentioned earlier (*Section 1.1*), the Kyoto Protocol is the main environmental instrument of the United Nations Framework Convention on Climate Change (UNFCCC). According to Clegg & Stretch (2014) the Annexure 1 countries are all developed countries which agreed to set emission reduction targets when they ratified the Kyoto Protocol, which provides mechanisms to ensure that they meet their required targets. There is a Clean Development Mechanism (CDM) which ensures that developing countries also participate in the global reduction market. These CDM projects are available only in developing countries and focus on development in renewable energy, energy efficiency and other related fields designed to achieve emission reductions. A CDM project must demonstrate that, without the Kyoto Protocol support, such as environmental, financial, investment, legal or technical help, the project would not have been viable. If these conditions are met, then the Kyoto Protocol allows for these CDM projects to yield GHG reduction credits, known as carbon emission reduction credits in the form of certified emission reductions (CERs). These CERs are saleable and useable by developed countries for the purpose of meeting their legally binding emission reduction obligations as set out in the

Kyoto Protocol. CERs are, therefore, in essence, a revenue source for CDM projects. It was therefore necessary to create a section in the Act which provides a tax incentive for any person holding a CDM project registration while the project is being implemented. This incentive applies to the disposal of the CERs issued in respect of the project, which would constitute income, but in terms of Section 12K is now exempt from all normal tax and capital gains tax (De Koker & Williams, 2014). The taxpayer would need a letter of approval issued by the Director-General of the Department of Minerals and Energy, as this is the Republic of South Africa's designated national authority and it should have been registered as contemplated in paragraph 36 of the Modalities on or before 31 December 2012 (De Koker & Williams, 2014).

2.3.4 Section 12L, allowance for energy efficiency savings

A substantial initial capital investment is required for taxpayers to be able to convert old technologies into new, more energy-efficient technologies. The long pay-back period tends to discourage businesses from making upfront investments to achieve savings through energy efficiency. The Act created a new section as a tax incentive to encourage taxpayers to make the investment. This notional allowance will enable taxpayers to capture the full profit from energy-efficient savings during each year in which incremental energy efficiency savings are initially realised. Before a taxpayer can qualify for this deduction, the taxpayer should, however, obtain an authenticated energy efficiency savings certificate, which can be issued only by persons as determined in the Regulations of the National Energy Act (34 of 2008), such as a verification and measurement professional. The following should be shown on this certificate: the pre-determined energy use baseline, annual energy efficiency savings expressed in kilowatt hours equivalent and the revised base-line. The energy efficiency savings allowance is determined by measuring the annual energy efficiency savings against the initial baseline. This is then applied against the lowest feed in tariff rate at the beginning of the year of assessment expressed in rand per kWh. This rate is determined in terms of Regulatory Guidelines set by the National Energy Regulator. Since the lowest feed-in tariff rate is higher than the current rate per kilowatt hour for electricity generated from fossil fuel, the overall formula is divided by two. (De Koker & Williams, 2012) In other words, the allowance for each year of incremental savings is determined as follows:

$$(\text{Energy efficiency savings} \times \text{applied rate}) \div \text{two}$$

(De Koker & Williams, 2012).

The taxpayer would then be entitled to a deduction against their taxable income to the value of the above calculation.

2.3.5 Section 37B, deductions in respect of environmental expenditure

Section 37B of the Act allows for a deduction in respect of cost incurred in acquiring any environmental treatment and recycling assets or environmental waste disposal assets. As per the Explanatory Memorandum on the Revenue Laws Amendment Bill (2007:42), tax law was implemented before environmental issues arose, and because environmental capital expenditure is, in some instances, a legal precondition, this section is to encourage such environmental capital expenditure as a matter of sound government policy. The important aspect of this section to note is the fact that any environmental treatment and recycling asset or environmental waste disposal asset must comply with the relevant definition to be able to receive the capital allowance. The assets should also be new and unused, and such assets should be required by the law of the Republic to be erected. In instances where expenses are incurred in respect of decommissioning, remediation or restoration arising from any trade previously carried on by the taxpayer, in order to comply with a law of the Republic that provides for the protection of the environment upon cessation of trade, a deduction can be claimed if such expenditure would not otherwise be allowed. (Clegg & Stretch, 2012)

The definition of an *'environmental treatment and recycling asset'* as per the Act is as follows:

"Environmental treatment and recycling asset" means *any air, water, and solid waste treatment and recycling plant or pollution control and monitoring equipment (and any improvement to the plant or equipment) if the plant or equipment is—*

- (a) used in the course of a taxpayer's trade in a process that is ancillary to any process of manufacture or any other process which, in the opinion of the Commissioner, is of a similar nature; and*
- (b) required by any law of the Republic for purposes of complying with measures that protect the environment.*

The definition of an environmental waste disposal asset as per the Act is as follows:

"Environmental waste disposal asset" means *any air, water, and solid waste disposal site, dam, dump, reservoir, or other structure of a similar nature, or any improvement thereto, if the structure is—*

- (a) of a permanent nature;*
- (b) used in the course of a taxpayer's trade in a process that is ancillary to any process of manufacture or any other process which, in the opinion of the Commissioner, is of a similar nature; and*

(c) required by any law of the Republic for purposes of complying with measures that protect the environment.

The allowance that would be available for the taxpayer in respect of an environmental treatment and recycling asset would be 40% of the cost in the year that the asset was acquired, and then 20% for each of the 3 succeeding years of assessment. In respect of an environmental waste disposal asset, the allowance would be 5% of the cost in the year of assessment in which the asset was acquired, and the 5% in each of the succeeding years of assessment. (Clegg & Stretch, 2012)

2.3.6 Section 37C, deductions in respect of environmental conservation and maintenance

This section in the Act deems expenditure incurred for conservation or maintaining land, as if the expenditure has been incurred in the production of income and for the purpose of trade, if the cost has been incurred in terms of a biodiversity management agreement that lasts for at least five years and land used by the taxpayer in his trade is in the immediate proximity of the land subject to the agreement. This expenditure is deemed to be a donation to the state in terms of Section 18A, for which the government will issue a receipt (Clegg & Stretch, 2012). The conservation or maintenance should be carried out in terms of a biodiversity management agreement entered into in terms of Section 44 of the National Environmental Management: Biodiversity Act (10 of 2004), which lasts for at least five years. If conservation or maintenance is carried out in terms of a declaration as per the terms of Section 20, 23 or 28 of the National Environmental Management: Protected Areas Act (57 of 2003), for at least 30 years, the expenditure incurred would be seen as a donation to the government in terms of Section 18A. If land were to be declared a national park or a nature reserve in terms of an agreement under Section 20(3) or 23(3) of the National Environmental Management: Protected Areas Act (57 of 2003), and it was endorsed on the title deed for at least 99 years, 10% of the lesser of the cost or market value of the land would be seen as a Section 18A donation to the government for that year and each of the succeeding nine years of assessment. This refers only to the land, and not to the usufruct on the land.

Therefore if expenditure that meets the above requirements is incurred, it is deemed to be a donation to the state in terms of Section 37C, and will therefore be deductible in terms of Section 18A.

2.4 Conclusion

As has been shown in this chapter, there are various incentives in the Act pertaining to environmental conservation. The main sections to be considered in the rest of this study will be Sections 11D, 12B, 12K, 12L, 37B and 37C. Even though these sections exist in the Act, specific requirements have to be met before these sections can be applicable. For example, the main requirement to be considered for Section 11D is the question of what would be deemed 'research and development' by wineries when applying the definition of the Act, if for example they were developing a new environmental conscious process to be used in their wineries. Section 12K has specific requirements, such as that the CDM project had to be registered before 31 December 2012, before the section could apply. Section 12L requires the taxpayer to make use of a measurement and verification professional to report on the energy usage, which then has to be submitted to SANEDI, who will then issue a certificate for submission to SARS when a taxpayer claims the Section 12L allowance. Section 37B has very specific definitions relating to environmental treatment and recycling assets and environmental waste disposal assets, which have to be met before the allowance can be claimed. Section 37C requires agreements to be in place before allowances can be claimed.

The next chapter will therefore investigate what can be considered environmental conservation from a winery's perspective, and how the incentives in the Act would apply to a winery's environmental conservation.

CHAPTER 3 ENVIRONMENTAL CONSERVATION OPTIONS FOR WINERIES AND THE INCOME TAX IMPLICATIONS FOR THESE

3.1 Introduction

Climate change and its potential impact is one of the greatest challenges facing mankind today. The process of winemaking is highly dependent on the weather and climate changes, changes to the seasons, and the duration of seasons, as well as maximum and minimum temperatures. Frost occurrence and heat accumulation could make a significant impact on the winegrowing areas of the world (Smyth & Russel, 2009:1986). This enhances the idea of wineries applying environmental conservation.

The objective of this research is to determine whether there is a benefit from a South African tax perspective for wineries when they invest in environmental conservation. To achieve this objective the following secondary objectives are addressed in this chapter:

- (i) To determine what would be considered environmental conservation from a winery's perspective (*Section 1.4.2*).
- (ii) To determine all the income tax results in South Africa for wineries when they invest in environmental conservation (*Section 1.4.2*).

The chapter will therefore consider what a winery would see as environmental conservation, with specific reference to the codes applicable to the wine industry, in order to determine what the tax results would be for wineries when investing in environmental conservation. The following sections in the Act were identified in chapter 2:

- Section 11D;
- Section 12B;
- Section 12K;
- Section 12L;
- Section 37B; and
- Section 37C.

3.2 Regulatory codes in the wine industry that encourage environmental conservation

Currently the Cape Winelands' social and environmental issues appear to be undergoing significant changes. There are numerous international and national regulatory codes and certification schemes which regulate the South African wine industry. These codes are broadly concerned with food safety, environmental protection and social protection (McEwan & Bek, 2009:257).

According to Ponte and Ewert (2007:45), the most significant technical standards for the South African wine industry are the British Retailer Consortium (BRC) and the Integrated Production of Wine (IPW) schemes. The BRC is one of the most important standards for high-volume wine exports to European Union (EU) destinations. This standard inter alia requires that wineries have a documented and effective quality management system and ensure that there is proper control over factory environmental standards, products, processes and personnel. The BRC scheme is mainly enforced by the United Kingdom and not regulated in South Africa. In order to ensure that South African wineries are able to export wines to the United Kingdom they are required to adhere to the BRC scheme as well. The IPW is a national semi-regulatory system providing guidelines that conform to international standards. These pertain to 'Good Agricultural Practices' for farms and 'Good Manufacturing Practices' for cellars to produce wines that are healthy, clean and environmentally-friendly (Ponte and Ewert, 2007:45). The IPW scheme is a voluntary scheme, but registered IPW members harvest 97% of South African grapes (McEwan & Bek, 2009:258-259).

Because the majority (nearly 95%) of the country's wine growing takes place in the Cape Floral Kingdom, the richest but smallest plant kingdom on the planet, the wine industry and the conservation sector had to come together in a partnership that led to the establishment of the Biodiversity and Wine Initiative (BWI). BWI aims to minimise the further loss of a unique and threatened natural habitat and to contribute to sustainable wine production through the adoption of biodiversity guidelines, such as are set out by BWI and IPW (WWF South Africa, 2012). As the first country in the world to introduce an industry-wide system to promote sustainable grape growing and environmentally sound cellar practices, South Africa made headway in the wine industry with the launch of the Sustainable Wines South Africa seal in 2010 as part of the South African wine industry's ongoing commitment to providing a traceable guarantee of sustainable environmental production (WWF South Africa, 2012).



Figure 2: The Sustainable Wines of South Africa Seal

The requirements for adherence to the BRC code has been excluded from this study as this is an international code which is enforced by the government of the United Kingdom and not necessarily a requirement for South African wine producers, unless their aim is to export. The purpose of this study is to determine whether there is a tax incentive available within local legislation and therefore for the remainder of the study only the IPW and BWI scheme have been considered.

3.3 Instances in the vinification process when environmental conservation can be implemented

As identified by Musee, Lorenzen & Aldrich (2007:424), the best waste minimisation strategy is to recycle, reuse or recover waste and by-products, either using them in other processes, or selling them. Otherwise they should be used as input materials in other industries. It is therefore clear that having processes in place to ensure that waste is being recycled is a key element in successful waste management.

A standard vinification process consists of de-stemming, crushing, cooling (storage), screening, fermentation, clarification (maturation), stabilisation and bottling (Musee *et al.*, 2007:419). In the vinification process, there are two classifications for the waste that occurs: intrinsic, which is waste as a result of the process, and extrinsic, which is waste as a result of the utilities used. Intrinsic waste is inherent in the fundamental process composition, while, on the other hand, the extrinsic waste is a function of secondary aspects of the operations. Table 2 and Table 3 show the vinification process divided into categories, with the sources that would lead to intrinsic and extrinsic waste (Musee *et al.*, 2007:422-423).

Process Categories	Processes	Grouping Factor
Grape reception and crushing area	De-stemming, crushing	Successive batch operations within the area time interval between the two processes.
Transfer systems	Pumping, piping	Waste generation due to wine juice, and transfers.
Separations	Screening, pressing, filtration	Product loss via separation of wine and solids.
Tank farm	Fermentation. Storage/cooling, clarification, stabilization, blending.	Extensive tank usage for process execution.

Table 2: General categorization of intrinsic waste sources during the vinification processes (Musee et al., 2007:422).

Process Categories	Processes	Grouping Factor
Wetting	Cleaning, sanitization, cooling, earth filtering	Extensive use of portable water.
Heat transfer	Heating, cooling	Use of energy for product quality enhancement.
Gaseous handling	Sulphication	Gas usage and storage for quality enhancement.
Packaging/ loading	Grape reception, bottling, storage/store rooms	Waste sources from subsidiary support utilities.

Table 3: General categorization of extrinsic waste sources during vinification processes (Musee et al., 2007:423)

Waste management is not the only conservation element for wineries to consider, which is clearly set out in the IPW guidelines; energy use and carbon emissions, as well as the packing material used and the set-up of bottling facilities should also be considered. According to the IPW guidelines for cellars (2009:8), the following are all to be followed when it comes to energy use and carbon emissions, waste management and packing material and bottling facilities. Wineries must adhere to all these in order to achieve the required 60% if they are to receive the Sustainable Wines of South Africa seal (SAWASB, 2009:8).

These guidelines include, but are not limited to the following:

In respect of energy use and carbon emissions:

- The cellar has to keep a record of monthly energy usage applicable to winery operations. To measure continual improvement in energy use, the following records are regarded as the most important:
 - Electricity usage (kWh);
 - Diesel usage (Litres);
 - Petrol usage (Litres);
 - Liquid Petroleum Gas (LPG) usage (kg); and
 - Any other fuels (e.g. coal, furnace oil, etc.) (kg or litres) (SAWASB, 2009:3).

In respect of waste-water management:

“Waste-water” is defined as *“all water used and generated in the cellar”*. Waste-water management includes the following:

- Monitoring the amount of waste-water;
- Monitoring the quality of waste-water;
- Storing of waste-water (which includes catchment dams); and
- Disposal of waste-water (SAWASB, 2009:4).

In respect of management of solid waste:

- Disposal of solid waste management; and
- Cleaning of waste-water dams, pipes and other equipment (SAWASB, 2009:6).

In respect of packing material and bottling facilities:

- Recycling programmes to recycle plastic waste, glass waste and paper waste (SAWASB, 2009:7).

These guidelines make it clear that the IPW scheme encourages wineries to keep track of their environmental impact. In order to obtain the Sustainable Wines South Africa seal, they have to implement these guidelines. These expenses would therefore also be deductible in terms of the general deduction formula, section 11(a) of the Act, as wineries would be able to prove that

these expenses are incurred in the production of income, as they need to incur these expense in order to receive the Sustainable Wines South Africa seal.

A further way in which environmental conservation can be conducted is to consider the use of alternatives for fossil fuels, which emit CO₂ into the air. Examples of alternative energy sources are wind power, solar energy or water power. Solar energy is already integral to the wine-making process. Solar energy is used to produce the key ingredient in this process: grapes. The sun's contribution is sometimes taken for granted during the growing process, but there are various other stages when the collection of solar energy can be used (Smyth & Russel, 2009:1986). Solar energy water heating systems, 20m² in size and PV systems rated at 20kWph can save up to 18.3% of the energy used in global winemaking. Making use of solar energy is not only environmentally sound, but it also saves costs, as there has been an increase in the price of fossil fuel energy (Smyth & Russel, 2009:1992).

There are thus various ways in which wineries can conduct environmental conservation, such as recycling waste, making use of solar power and conserving endangered land like the Cape Floral Kingdom.

3.4 The specific income tax incentives dealing with environmental conservation

After considering the type of environmental conservation wineries can perform, the question is how that would apply to the various sections in the Act, if there are indeed financially beneficial incentives.

3.4.1 Deduction in respect of scientific or technological research and development

Section 11D of the Act allows a deduction in respect of any scientific or technological research and development expenditure incurred in the year of assessment. The section also allows for a capital allowance in respect of any capital employed in the scientific or technological research and development process. It can therefore be concluded that since it is not necessarily the wineries' intention to discover or create non-obvious scientific or technological knowledge, there might be instances when they do either create or discover a new grape variety or create new technology or a new process to be used in the wine-production process in order to improve environmental conservation within the wine-production process.

A good example of creating a new grape variety would be the Pinotage grape variety, a uniquely South African grape. In 1925, Abraham Izak Perold, a Professor at the University of Stellenbosch, created a crafted Pinotage vine by crossing Hermitage and Pinot Noir vines with each other (Pinotage Association, 2012). Professor Perold would have been able to deduct the expenditure incurred relating to creating these vines, as well as getting a capital allowance for

any capital assets employed in developing the grape variety. In terms of Section 11D of the Act, that would have been seen as a research and development project as this would be seen as discovery non-obvious scientific information.

Winetech has explicit responsibility for promoting and coordinating wine research (Giuliani *et al.*, 2010:752; Booyesen, 2010:1). According to Winetech (2009:1), they have a binding class ruling with SARS which is valid for five years, starting from October 2008, which allows contributing members to deduct a percentage of their contributions to Winetech under Section 11D(4), as Winetech performs projects which meet the research and development requirements set out in Section 11D of the Act. This percentage is determined at the end of each year, and is then communicated to all the members. So even if wineries do not discover or create non-obvious scientific or technological knowledge themselves, if they are members of Winetech, they would still be able to deduct their contributions to Winetech in terms of Section 11D.

3.4.2 Deduction in respect of certain machinery, plant, implements, utensils and articles used in farming or production of renewable energy

Although most wineries have a component that would qualify as farming, the purpose of this study is to investigate environmental conservation. This means considering this incentive from the perspective of producing renewable energy, bio-diesel or bio-ethanol rather than articles used in farming. The winery would be entitled to a capital allowance in terms of Section 12B if they purchased machinery, plant or implements to produce renewable energy, which would be used in their production process (De Koker & Williams, 2014). This renewable energy could be generated by using wind, sunlight or gravitational water forces to produce electricity or biomass comprising organic wastes, landfill gas or plants.

As discussed in paragraph 3.3, wineries could make use of solar power in the winemaking process, and if they were to do that, they would be able to receive a deduction in terms of Section 12B(1)(h) of the Act, which is an allowance in respect of all capital expenditure incurred in producing solar power. One of the most impressive wineries to have been using solar energy power is the EOS Estate Winery in Paso Robles, California. This winery makes use of two acres of ground-mounted tracking solar PV modules, which supply their winery and tasting room with all the electricity needed to be fully functional and 60 roof-mounted solar thermal collectors supply all the hot water needed (Smyth & Russel, 2009:1991). Smyth & Russel (2009:1991-1992) explain that there are various ways of using solar power, for example for electricity or heating, and that there are already numerous wineries over the world making use of solar power in their winemaking processes. In a study conducted by Fernandez, Ramos, Perez & Rodriguez. (2010:7023), they make it evident that biodiesel can be produced from grape seeds. Keeping this in mind, any machinery, plant, implement, utensils or articles owned by the winery and used

in the production of bio-diesel or bio-ethanol, would qualify for a capital allowance in terms of Section 12B(1)(g) of the Act, therefore if a winery would produce biodiesel from their recycled grape seeds, they would be entitled to a capital allowance in terms of Section 12B.

3.4.3 Exemption of certified emission reductions

In terms of Section 12K of the Act, any amount received by or accrued to in respect of the disposal of any CER derived by the winery from carrying on a qualifying CDM project should be excluded from normal taxation.

The winery would need a letter of approval issued by the Director-General of the Department of Minerals and Energy. The project must also have been registered as contemplated in paragraph 36 of the Modalities on or before 31 December 2012 (Clegg & Stretch, 2014).

It is not expected that this project will be an auxiliary to a winery's production of wine, as it relates to a specific project that has to be implemented and registered. If, therefore, a winery hasn't had the explicit intention to register such a project, the exemption will not apply.

3.4.4 Allowance for energy efficiency savings

The IPW requires wineries to keep records of their energy use and carbon emissions. It would be possible for a winery to claim a Section 12L allowance, bearing in mind that all the requirements need to be met, as set out in the *GNR.971 of 9 December 2013: Regulations: Allowance for energy efficiency savings*. Before being able to claim the allowance they would have to adhere to the following requirements in terms of GNR 971:

- Register with the South African National Energy Development Institute (*SANEDI*);
- Appoint a measurement and verification professional to compile a report containing a computation of the energy efficiency savings in respect of the winery for the year of assessment for which the allowance is claimed;
- Submit the report to *SANEDI*;
- Submit a certificate obtained from *SANEDI* to SARS together with the claim for the allowance.

The measurement and verification professional should also be part of a measurement and verification body, such as the Council of Measurement and Verification Professionals of South Africa (*CMVPSA*, 2011).

Even though the information might be readily available the cost associated with it might not justify the benefit, as they would have to register with SANEDI and use an independent measurement and verification professional to report. These costs would not be deductible under Section 12L if all the requirements aren't met, but should be deductible under Section 11(a) of the Act if it can be proved that the cost was incurred in the production of income.

3.4.5 Deductions in respect of environmental expenditure

As discussed earlier in section 3.3, the best way to do effective waste management in wineries is to recycle products. Wineries would be able to get a deduction in terms of Section 37B if they had an environmental treatment and recycling asset and/or environmental waste disposal asset. It can therefore be concluded that if these are assets used in the process of recycling or controlling and monitoring waste that is generated by the winemaking process they could qualify as an environmental treatment and recycling asset or an environmental waste disposal asset, if such an asset is required by a law of the Republic.

The requirement that it should be required by a law of the Republic might result in the event that any environmental treatment and recycling assets or environmental waste asset that meets the definition would not otherwise classify as an environmental treatment and recycling asset or environmental waste asset in terms of Section 37B(1) of the Act. "**Law**" is defined in the Oxford Dictionary as: "*the system of rules which a particular country or community recognises as regulating the actions of its members and which it may enforce by the imposition of penalties*". The IPW is only a semi-regulatory system which provides guidelines, and members form part of this system voluntarily (McEwan & Bek, 2009:258-259). Despite the fact that there are various standards and systems regulating the wine industry, there are no penalties if there are instances of non-compliance with the codes and standards and therefore none of those standards and systems would be seen as law. No penalties can be enforced for non-compliance, but non-compliance would lead to non-recognition from the codes.

3.4.6 Deductions in respect of environmental conservation and maintenance

As most of the wineries (95%) form part of the Cape Floral Kingdom, which is classified as a world heritage site (WWF South Africa, 2012), they would probably be able to qualify for a Section 37C deduction if the land is privately owned as per Section 37C(3) of the Act. They would qualify for a Section 37C deduction if conservation or maintenance is carried out in terms of a biodiversity agreement, in terms of Section 44 of the National Environmental Management: Biodiversity Act (10 of 2004), which would last at least five years as per Section 37C(1)(a) of the Act. They could qualify if the land was declared a national park or nature reserve in terms of an agreement under Section 20(3) or 23(3) of the National Environmental Management Protected

Areas Act (57 of 2003), and the declaration was endorsed on the title deed of the land, with duration of at least 99 years for a deduction in terms of Section 37C(5) of the Act.

In scenario 1 (where conservation is carried out in terms of the National Environmental Management: Biodiversity Act, 2004), the winery would be entitled to a Section 18A deduction relating to expenditure actually incurred in respect of conservation or maintenance. This is deemed to be a donation to the Government in terms of paragraph 62 of the Eighth Schedule of the Act. In scenario 2 (where the land is declared a national park or nature reserve), the winery would be entitled to a Section 18A deduction to the value of 10% of the lesser of the cost or market value of the land, and this would also be deemed to be a donation to the Government.

3.5 Conclusion

In this chapter, the type of environmental conservation a winery could conduct was discussed, along with whether there were any codes that required wineries to conduct environmental conservation. Codes identified were the IPW, which is a national semi-regulatory code, the BWI regarding the conservation of the Floral Kingdom and the BRC code (*Section 3.2*). The type of environmental conservation encouraged by these codes is mainly waste management in the form of recycling. Another form of environmental conservation could be that of using solar energy to generate solar power. Conserving endangered fauna and flora would also be considered environmental conservation (*Section 3.3*).

It is therefore clear that there are various ways in which wineries can contribute to environmental conservation, whether it is implementing effective waste management programs, such as recycling programs, making use of solar power energy, or just conserving the already endangered Floral Kingdom (*Section 3.3.3*).

As seen in section 2, the Act does provide incentives for taxpayers to contribute to environmental conservation. This chapter shows that there are instances when the incentives would specifically apply to wineries, such as Section 11D, where it is evident that if wineries conducted research and development, as defined in the Act, they would be entitled to a Section 11D deduction. However, even if they did not conduct research and development themselves but still contributed to Winetech, they would still be entitled to claim a portion of their contributions as a deduction under Section 11D (*Section 3.4.1*). This advantage was only available for five years expiring in 2015. Section 12B would be applicable if the winery produced solar power, bio-ethanol or bio-diesel. Section 12K would be available if the winery had a CDM project. Section 12L could be used if there was a proper record of energy usage and a report showing the energy saving. Section 37C would be applicable if the winery had land that formed part of the Cape Floral Kingdom or any other declared National Park. Section 37B would not be

applicable to a winery, as it would be difficult to prove that there was actually a law that required wineries to erect such environmental assets.

The next question concerns the type of incentives that exist in other wine-producing countries, and how those incentives compare with the South African incentives. This will be discussed in the next chapter by means of a literature study of the Income Tax Acts of Australia, France and Oregon (as a state of the USA).

CHAPTER 4 THE INCOME TAX IMPLICATIONS FOR ENVIRONMENTAL CONSERVATION IN OTHER WINE-PRODUCING COUNTRIES

4.1 Introduction

The objective of this research is to determine whether any benefit is derived, from the perspective of South African taxation, for wineries when they invest in environmental conservation. To achieve this objective, the following secondary objective is addressed in this chapter:

- (i) To determine the income tax results in other wine producing countries when wineries invest in environmental conservation (Section 1.4.2).

This chapter will therefore consider what benefits are available in other wine-producing countries by comparing the incentives in those specific countries to the incentives in South African legislation, as mentioned in section 3.4. The countries evaluated will be Australia, France and the state of Oregon in the USA, taking into account the following foreign legislation:

- For Australia: Income Tax Assessment Act no. 38 of 1997 (*Aus. Tax Act*);
- For France: The General Tax Code, last updated 19 August 2013 (*GTC*);
- For the USA: Oregon, as a wine-producing state's legislation has been considered. The applicable legislation is as follows:
 - Oregon – Oregon Revised Statutes 2013 Edition (ORS).

4.2 Sections in Australian legislation on environmental conservation

Australia was chosen because there is an increasing interest in Australia as a wine-producing country. It is seen as a new world producer, and it exports increasingly more wine (Wittwer, Berger & Anderson, 2003:487; Cusmano, Morrison & Rabellotti, 2010:1588). Australia is one of the countries that adopted the Kyoto Protocol and was committed to reducing its carbon footprint by 31 December 2012 (UNFCCC, 2012).

Some of the incentives found in the Aus. Tax Act are:

- Tax offset for research and development expenses;
- Tax deductions on soil erosion conservation.

4.2.1 Specific sections with regards to research and development incentives

In terms of Division 355 of the Aus. Tax Act, the research and development (R&D) tax incentives provide for a tax offset in respect of R&D activities that benefit Australia, and have been designed to encourage companies to engage in R&D activities. The incentives are therefore available only to companies incorporated in Australia and R&D activities conducted in Australia. To be eligible for claiming the R&D incentive, taxpayers should register their R&D activities with Australian Government's specialist business program delivery division in the Department of Industry, Innovation, Science, Research and Tertiary Education (AusIndustry) prior to making the claim.

It is clear that there are specific requirements for activities that are classified as R&D activities, to be fulfilled before a taxpayer can claim the incentive relating to any R&D conducted. These requirements as per Division 355 of the Aus. Tax Act are as follows:

"It should be experimental activities

- (a) whose outcome cannot be known or determined in advance on the basis of current knowledge, information or experience, but can only be determined by applying a systematic progression of work that:*
 - (ii) is based on principles of established science; and*
 - (iii) proceeds from hypothesis to experiment, observation and evaluation, and leads to logical conclusions; and*
- (b) that are conducted for the purpose of generating new knowledge (including new knowledge in the form of new or improved materials, products, devices, processes or services).*

There are also some specific exclusions which could be regarded as R&D activities, but are then specifically excluded, such as market research (Division 355.25(2)(a) of the Aus. Tax Act) or management studies (Division 355.25(2)(c) of the Aus. Tax Act), but the vinification process is not one of those activities.

It can therefore be concluded that, should a winemaker be conducting experimental activities, either in creating a new cultivar or improving the vinification process, as long as the outcome of these activities is unknown it should qualify for an R&D offset, which will reduce the amount of income tax payable in terms of Division 355 of the Aus. Tax Act.

4.2.2 Specific sections with regards to soil erosion conservation

As seen in section 2.2 of this dissertation, the meaning of environmental conservation would be “to protect from harm or destruction the impact human activity would have on the condition of the natural world”. In terms of the above definition, soil erosion occurring because of farming would be seen as harm or destruction caused by human activity.

In terms of the Aus. Tax Act, there is specific provision for a deduction if an eligible non-till seeder in terms of Division 385-285 of the Aus. Tax Act is used. An “**eligible non-till seeder**” is defined as:

- (a) *a tine machine fitted with minimum tillage points designed to achieve minimum soil disturbance and less than full cut-out; or*
- (b) *a disc opener with single, double or triple disc blades designed to achieve minimum soil disturbance and less than full cut-out; or*
- (c) *a disc/tine hybrid machine fitted with:*
 - (i) *single, double or triple disc blades designed to achieve minimum soil disturbance and less than full cut-out; and*
 - (ii) *minimum tillage points designed to achieve minimum soil disturbance and less than full cut-out; or*
- (d) *a disc/blade hybrid machine fitted with:*
 - (i) *single, double or triple disc blades designed to achieve minimum soil disturbance and less than full cut-out; and*
 - (ii) *blades designed to achieve minimum soil disturbance and less than full cut-out.*

For the purposes of paragraph (a) and subparagraph (c)(ii), each of the following points are taken to be minimum tillage points designed to achieve minimum soil disturbance and less than full cut-out:

- (a) *narrow points;*
- (b) *knife points; and*
- (c) *inverted "T" points.*

Where wineries grow their own vineyards, and use the grapes from those vineyards to produce their wines, they could use an eligible non-till seeder when preparing the ground around the vineyards or for new vineyards. They would be entitled to deduct 15% of the cost of the depreciating asset (Division 385-180). This deduction will be available only if the depreciable asset has never been used before or is ready for use before (Division 385-180).

4.2.3 Other sections and repealed sections

Part 3-50 of the Aus. Tax Act deals with climate change, while Section 420 speaks specifically of emission units, as mentioned in the Kyoto Protocol (UNFCC, 2012). However, this section deals with the tax treatment pertaining to CER, i.e. buying and selling emission units, but does not provide any incentive for generating emission units. The following sections have since been withdrawn: Division 400 and Division 402. Division 400 – Environmental impact assessment and environmental protection, as well as Division 402 which gave a tax offset if the Water Ministry certified that a project was eligible for the urban tax offset. Such projects could be something like a storm-water harvesting project. These sections were repealed in June 2013.

4.3 Sections in French legislation regarding environmental conservation

France was chosen as one of the countries for comparison because it is thought of as an old world wine producer (Cusmano *et al.*, 2010:1588). It adopted the Kyoto Protocol and was committed to reducing its carbon footprint by 31 December 2012 (UNFCC, 2012).

Some of the incentives that can be found in the GTC are:

- Tax credit for research expenses incurred by the industrial and commercial or agricultural industries;
- Tax reductions for expenditure incurred in the preservation of the natural heritage.

4.3.1 Tax credit for research expenses incurred by the industrial and commercial or agricultural industries.

In terms of the GTC, companies that operate in areas of urban revitalisation can, under Section 244 Quarter B, be eligible for a tax credit on research expenditure incurred in these areas. This expenditure includes the depreciation and amortisation cost of fixed assets, staff cost directly related to the research and development expenses and other general overhead costs. The rate at which the tax credit is calculated varies from 50% - 200% of the cost incurred.

In terms of the GTC, Section 244 Quarter B, it would be necessary for a wine farm to operate in an area of urban revitalisation. The word 'urban' refers to a city or town. In France there are

areas, such as Burgundy, where wineries are located in the towns, for example Chablis (Burgundy Today.com, 2014). The wine farm operates in the town and would therefore be eligible for the tax credit as far as expenses relating to research are concerned.

4.3.2 Tax reduction granted for expenditure incurred in preservation of natural heritage

In terms of the GTC, a tax reduction is granted to taxpayers domiciled in France in respect of expenses incurred for the maintenance and protection of the natural heritage and performed on natural areas, which include, but are not limited to national parks, nature reserves and natural monuments and sites. The tax reduction granted is equal to 18% of the expenses incurred.

If the wine farm is operating in an area designated as a natural heritage and natural area, the owners would be entitled to claim the tax reduction in respect of the expenditure incurred in conserving a natural site.

4.4 Sections in the Oregon state legislation regarding environmental conservation

The study conducted by Garrison is used as the basis for comparing the various states' credits for "going green". Owing to the increase in fuel prices, the need for both Federal and state governments to encourage the use of alternative energy, such as solar and wind power, has arisen (Garrison, 2013:27). Oregon was chosen for this study, as it is a wine producing state, and, in terms of Garrison's study, offers more income tax incentives than California, which is the main wine producing state in the USA. Some of the incentives available in the Oregon Statutes which will be discussed are:

- Tax credits available in respect of the use of alternative fuel devices;
- Tax credit in respect of a pollution controlled facility;
- Tax credit in respect of the production of biomass;
- Tax credit in respect of cost incurred for an energy conservation facility.

4.4.1 Tax credits available in respect of the use of alternative fuel devices

In terms of Section 316.116 of the ORS, a tax credit is available to taxpayers for costs incurred in the construction or installation of an alternative fuel device in a dwelling. The various alternative fuel devices range from a solar fuel cell and wind systems used to generate electricity, and the tax credit range between \$2 - \$3 per kilowatt alternative fuel produced limited to a specific amount per year. The amount not deductible in the first year can be carried forward for a period of five years. Although these credits are referring to credits granted in respect of

alternative fuel devices installed in dwellings, they are available only to individual taxpayers who have installed or constructed these devices to be used in a dwelling, which is used as a principal or secondary residence (Section 316.116.3A of the ORS). A winery would therefore not be entitled to rely on this section to claim a tax credit in respect of any cost incurred if they were to construct or install an alternative fuel device on their premises.

4.4.2 Tax credits available in respect of the production of biomass

In Sections 315 and 141 of the ORS, a tax credit is available for companies producing biomass. Biomass can be converted into fuels like biodiesel. As discussed in section 3.4.3 of this study, it has been proven that biodiesel can be produced from grape seeds. '**Biomass**' is defined in Section 315.141.1(d)(C) as "*organic matter that is available on a renewable or recurring basis and is derived from agricultural residues*". If a winery were to produce biomass from their agricultural residues, such as grape seeds, they would be entitled to a tax credit. However, they would have to obtain a certificate from the State Department of Energy, which would certify the amount of tax credits that the taxpayer are entitled to and the taxpayer would be liable for a cost. The tax credit allowed depends on the nature of the biomass produced, and can range from \$0.05 - \$10 per unit produced (Section 315.141.1(d)(C)).

4.4.3 Tax credits available in respect of a pollution controlled facility

Section 315.304 of the ORS entitles a taxpayer to a tax credit in respect of a certified pollution-controlled facility. A pollution-controlled facility is one which is used for but not limited to recycling, material recovery and energy recovery. These concepts are defined as follows in Section 459.005 of the ORS. '**Recycling**' means "*any process by which solid waste materials are transformed into new products in a manner that the original products may lose their identity*". '**Material recovery**' means "*any process of obtaining from solid waste, by pre-segregation or otherwise, materials that still have useful physical or chemical properties and can be reused or recycled for some purpose*". '**Energy recovery**' means "*recovery in which all or a part of the solid waste materials are processed to use the heat content, or other forms of energy from the material*". These pollution control facilities can be used to control air, water, noise, hazardous waste and solid waste. The maximum credit available for a tax deduction will not exceed half of the certified cost of the facility multiplied by the certified percentage allocable to pollution control. The certified cost and the percentage allocable to pollution control will be determined by the Environmental Quality Commission once an application for certification for the facility has been received (Section 315.304).

As seen in section 3.3 of this dissertation, there are various ways in which wineries can do both 'recycling' and 'material recovery' and if they were to have a pollution-control facility in use they

would be entitled to a tax credit if that control facility had been certified by the Environmental Quality Commission. The Environmental Quality Commission can charge a fee for providing the certification.

4.4.4 Tax credits available in respect of an energy conservation facility.

A tax credit is available in terms of Section 315.354 of the ORS for a taxpayer, based on a percentage of the certified cost of an energy conservation facility in the tax periods for which this facility has been certified by the Director of the State Department of Energy. The definition of an 'energy conservation facility' includes, but is not limited to, the following:

(a) Any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device necessarily erected, constructed, installed or acquired by any person in connection with the conduct of a trade or business and actually used in the processing or utilization of renewable energy resources to:

(A) Replace a substantial part or all of an existing use of electricity, petroleum or natural gas;

(B) Provide the initial use of energy where electricity, petroleum or natural gas would have been used;

(C) Generate electricity to replace an existing source of electricity or to provide a new source of electricity for sale by or use in the trade or business;

(D) Perform a process that obtains energy resources from material that would otherwise be solid waste; or

(E) Manufacture or distribute alternative fuels, including but not limited to electricity, ethanol, methanol, gasohol or biodiesel.

(b) Any acquisition of, addition to, reconstruction of or improvement of land or an existing structure, building, installation, excavation, machinery, equipment or device necessarily erected, constructed, installed or acquired by any person in connection with the conduct of a trade or business in order to substantially reduce the consumption of purchased energy.

The deduction available will be between 35%-50% of the certified cost, depending on the exact nature of the energy conservation facility, over a period of five years. Wineries would be entitled to this deduction if they installed a facility to make use of alternative energy sources, such as the installation of solar plants or wind power plants, as seen in section 3.3.

4.5 Conclusion

This chapter investigated specific incentives in other wine-producing countries, limited to Australia, France and Oregon, a state in the USA, for encouraging environmental conservation as defined in *Section 2.2*. The purpose of this chapter was to compare the incentives granted in Australia (*Section 4.2*), France (*Section 4.3*) and Oregon (*Section 4.4*) with the incentives granted in South Africa (*Chapter 2.3*).

When comparing the incentives in Australia (*Section 4.2.1*) and France (*Section 4.3.1*) with the South African incentives (*Section 2.3.1*), it was seen that both Australia and France have an incentive for research and development expenses, just as in South Africa, which is designed to encourage investment in research and development. No such incentive is available in Oregon state law.

Australia (*Section 4.2.2*) allows for a special deduction for measurements taken to prevent soil erosion, by using non-till seeders. South Africa does not have a specific incentive relating to prevention of soil erosion, but taxpayers would still be entitled to a tax deduction in terms of the First Schedule of the Act. There were other incentives in the Aus. Tax Act which have since been withdrawn (*Section 4.2.3*) which also encouraged environmental conservation.

France also provides for an incentive in respect of environmental conservation and maintenance (*Section 4.3.2*) as would South Africa (*Section 2.3.6*) if the winery formed part of a natural heritage site.

Oregon (*Section 4.4.3*) allows deductions in respect of a 'pollution control facility', which is similar to the 'environmental treatment and recycling assets' mentioned in Section 37B of the Act (*Section 2.4.5*). However, in Oregon there is no requirement by law for the taxpayer to have such a facility, but such a facility would still have to be certified by the Environmental Quality Commission (*Section 4.4.3*). Further, just as in South Africa (*Section 2.4.2*), there is a tax credit available for wineries which make use of an 'energy conservation facility' which is, for example, a solar power or a wind power utility, and there is a deduction available in the production of biomass which could in turn be used in the production of biofuel or diesel, for which the Oregon legislation (*Section 4.4.4 and Section 4.4.2*) has also provided.

According to the research carried out in this chapter and referring to the South African legislation in section 2, it can be concluded that South Africa and Oregon state provide more tax incentives to encourage companies to invest in environmental conservation than the other old and new world wine-producing countries, such as Australia and France.

With this in mind the next question concerns whether or not wineries actually invest in environmental conservation, and, if they do, whether they are aware of the incentives in the Act. Would these incentives actually encourage them to invest in environmental conservation? This will be discussed in the next chapter by means of an empirical study conducted by using a limited number of South African wineries as the population group.

CHAPTER 5 SOUTH AFRICAN WINERIES' OPINION ON ENVIRONMENTAL CONSERVATION AND THE ASSOCIATED TAX BENEFITS

5.1 Introduction

The objective of this research is to determine whether or not there is a benefit from the South African tax perspective for wineries when investing in environmental conservation. To achieve this objective the following secondary objective is addressed in this chapter:

- (i) To perform a limited empirical study by sending out questionnaires to selected South African wineries to determine whether they are aware of tax benefits. If they are aware, does it affect their decision to invest in environmental conservation?
(*Section 1.4.2*)

By performing an empirical study in the form of a questionnaire, this chapter will consider whether South African wineries are of the opinion that there is a tax benefit for them when investing in environmental conservation.

5.2 Selection of wine farms

The questionnaire was sent out to a selection of five wineries in the Stellenbosch region. The selection of the wineries was based on the following criteria:

- The wineries should be known for investing in environmental conservation, either through media coverage or through self-proclamation.
- The wineries should be exporting wines to other countries.

5.3 Questionnaire sent to wineries

The questions were based on environmental conservation as well as whether the wineries are already employing any of the deductions as discussed in section 2.

See appendix A (The questionnaire).

A definite response was received from only two of the wineries to whom the questionnaire was sent. The first winery (winery A) responded that they did not believe that there were any income tax benefits for wineries when investing in environmental conservation. The second winery (winery B) gave more insight into the winery's knowledge of environmental conservation and their contribution to it.

5.3.1 Conservation performed by winery B

Winery B performs the following environmental conservation. They specifically recycle waste and conserve land, and they have investigated making use of solar power. Further to this, they also have an existing anaerobic waste water treatment facility. The anaerobic waste water treatment facility is used by winery B to generate biogas, which could be used in a gas electricity generator to generate electricity. They are also in the process of constructing a second anaerobic treatment facility, where the biogas will be used as boiler fuel to replace the coal as fuel source.

Their waste recycling specifically entails the recycling of all their glass, plastic and carton/paper waste from their secondary production sites; this is further separated on-site and then collected by contractors, who recycle the material. Winery B also has facilities where second-hand glass is washed, inspected and, if compliant with strict quality criteria, reused.

Winery B owns land that forms part of the Cape Floral Kingdom, and is a member of the Biodiversity and Wine Initiative (BWI). They have set aside approximately 1 184 ha of land for conservation as part of the BWI.

In terms of the semi-regulatory standards, winery B adheres to the IPW standards, and receives the necessary 60% score, thereby qualifying for the Sustainable Wine of South Africa Seal.

The winery also contributes to Winetech and has research and development programmes in place. The primary research performed is in collaboration with different institutions like the University of Stellenbosch or Winetech, looking specifically into viticulture and the wine-making process. Winery employees are on steering committees for research projects funded by the Water Research Commission, and they are also on the Climate Change project, concerned with the wine and fruit industries.

5.3.2 Tax incentives available to winery B based on their environmental conservation initiatives

When a comparison is made between the environmental conservation that winery B already does and the incentives available in the Act, the results can be tabled as follows:

Environmental Conservation performed by winery B	Applicable Section available in the Act	Would winery B be able to claim the incentive available?
The recycling of all their glass, plastic and carton/paper waste.	Section 37B, where the winery has an environmental treatment and recycling asset, which is required by law (<i>Section 3.4.5</i>).	Even though the recycling plant used by winery B to recycle all their glass, plastic and carton/ paper waste would fall within the ambit of the definition of an “ <i>environmental treatment and recycling asset</i> ”, because it is not required by law, they would not be entitled to claim the Section 37B incentive, as it can be claimed only if the ‘ <i>environmental treatment and recycling asset</i> ’ are required by law.
The anaerobic waste water treatment facility used to generate biogas.	Section 37B, where the winery has an environmental treatment and recycling asset, which is required by law (<i>Section 3.4.5</i>).	Even though the anaerobic waste water treatment facility used by winery B to produce biogas would fall within the ambit of the definition of an “ <i>environmental treatment and recycling asset</i> ”, because it is not required by law, they would not be entitled to claim the Section 37B incentive.
Land set aside for conservation which forms part of the Cape Floral	Section 37C, deduction in respect of conservation or maintenance carried out in	As winery B could not expressly state whether or not they have a biodiversity

Kingdom.	terms of a biodiversity agreement (<i>Section 3.4.6</i>).	agreement, it is difficult to determine whether they would be entitled to the Section 37C deduction. However, if such an agreement was in place, they would be entitled to claim the Section 37C deduction.
Contributions made to WineTech.	Section 11D, as WineTech has a specific ruling with SARS to allow contributions made to them as deductions in terms of Section 11D. (<i>Section 3.4.1</i>)	Winery B would be entitled to claim a Section 11D deduction in terms of the specific ruling made by SARS to Winetech members.
Research performed in collaboration with different institutions, such as the University of Stellenbosch, specifically looking into viticulture and the wine-making process.	Section 11D, deduction available for scientific or technological research and development expenditure (<i>Section 3.4.1</i>).	Depends on whether winery B would be able to prove that the research conducted fell within the ambit of the definition of research and development as defined in the Act (<i>Section 2.3.1</i>).

Table 4: Tabled view of results received from questionnaire received from winery B. (Author's own compilation).

The above table shows clearly that, even though winery B is investing in environmental conservation, they would be able to use only a limited number of the available incentives because the requirements for using the other incentives are too stringent.

Winery B also further indicated that they keep accurate records of their energy usage, and that they would pay for a measurement and verification specialist if it meant that they would be entitled to the Section 12L deduction (*Section 3.4.4*).

5.4 Other information gathered from the media relating to South African wineries' environmental conservation

Vrede en Lust, a winery located in the Western Cape, is one of South Africa's leading wine farms, supplying wine to the local market, as well as exporting their wine to Europe, the UK and China. They embarked on a project whereby they would be one of the first wine farms in South Africa to install solar panels for generating solar powered energy. This has led to their having a cost saving of up to 40%, as they now need to rely on the local energy supplier, Eskom, for only

60% of their electricity, the remainder of which is generated by means of solar power. A further benefit to cost saving is that they are able to reduce their carbon footprint by 11 000 ton CO₂ over 30 years, or more simply put, to 0.75 kg per litre of wine produced. All of this is achieved by installing 900 solar panels on their farm. 10% of these panels were installed on the winery's roof, and the remainder were installed as a solar vineyard in the vineyards (Coetsee, 2013:48-52). According to these facts, Vrede en Lust would be entitled to claim the Section 12B(1)(h) capital allowance deduction (*Section 3.4.2*) for all the capital cost incurred in setting up the solar panels, which are used for the production of solar power.

5.5 Conclusion

In this chapter it was considered the type of environmental conservation South African wineries apply, including their opinion as to whether or not there is a tax benefit for them in investing in environmental conservation. It was apparent that wineries perform a range of environmental conservation contributions, from being part of Winetech and performing research and development programmes, to having waste recycling plants, and setting aside land for conservation as part of the Cape Floral Kingdom (*Section 5.3.1*). It was further noted that wineries in South Africa are starting to realise that the installation of solar panels for generating solar power can be beneficial in minimising their carbon footprint (*Section 5.4*). Unfortunately it was also proved that, even though wineries invest in environmental conservation, the requirements of the Act enabling them to use the incentives are so stringent that they would not be able to derive all the benefits from those incentives (*Section 5.3.2*). Further, some of the wineries maintain that there is absolutely no benefit for them from the tax perspective in investing in environmental conservation, as they would only get taxed again in other instances, such as the applicable excise taxes. There is thus currently no tax benefit that would incentivise them to invest in environmental conservation. Given this, a full conclusion as to whether there is a tax benefit for South African wineries when investing in environmental conservation will be reached in the next chapter.

CHAPTER 6 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

“Climate change and its potential impact is one of the greatest challenges facing mankind today (Smyth & Russel, 2009:1986).”

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (United Nations, 1987).”

This is one of the first formal definitions in respect of ‘sustainability’ by the United Nations (1987). Wine-making is an age-old tradition. Other than being a crafted skill, wine is also an agricultural product. A variety of role players influence the wine industry but there are undeniable associated problems, one of which is the environmental dimensions of wine-making. Environmental sustainability therefore plays an important role (Szolnoki, 2013:243).

In this study, the main objective was to determine whether there is a benefit from the South African tax perspective for wineries when they invest in environmental conservation.

To draw a conclusion for this objective, the following secondary objectives have been investigated:

- (ii) To determine all the South African income tax incentives when investing in environmental conservation (*Chapter 2*);
- (iii) To determine what would be considered environmental conservation from a winery’s perspective, and the South African income tax incentives (*Chapter 3*);
- (iv) To analyse the tax benefit for wineries in other countries (*Chapter 4*);
- (v) To conduct a limited empirical study by sending out questionnaires to selected South African wineries to determine whether they were aware of tax benefits and, if so, to investigate whether this would impact on their decision to invest in environmental conservation (*Chapter 5*).

A conclusion was reached for each of the above secondary objectives to draw the final conclusion, and to identify recommendations and the potential for further study.

These conclusions will now be analysed further, in order to reach a final conclusion.

6.2 Conclusion on the secondary objectives

6.2.1 Conclusion on the South African income tax investigation when investing in environmental conservation

The secondary objective was to investigate income tax benefits from the South African perspective when investing in environmental conservation. This objective was reached by studying the Act to find incentives for taxpayers when investing in environmental conservation.

The first objective was to see what the Act would define as “**environmental conservation**”. It was determined in section 2.2 that there was no specific definition in the Act, so environmental conservation would take on the normal meaning when applied to the Act. The normal meaning derived in section 2.2 was: “*to protect from harm or destruction the impact human activity would have on the condition of the natural world.*” It can therefore be concluded that anything to protect the environment from human destruction would constitute environmental conservation.

The Act was analysed further, using the above definition and understanding of ‘environmental conservation’ to determine what incentives are available in the Act with reference to environmental conservation. The main sections within the Act identified in section 2.3 were Sections 11D, 12B, 12K, 12L, 37B and 37C.

The incentives in these sections are available to taxpayers, but there are certain specific requirements that must be met before they will be available for use, as seen in Chapter 2. Some of these specific requirements for the sections can be summarised as follows:

- In Section 11D, the main requirement to be considered is finding out what would be considered research and development by wineries when applying the definition of the Act.
- Section 12K has specific requirements, such as the fact that the CDM project must be registered before 31 December 2012, if that section is to apply.
- Section 12L requires the taxpayer to make use of a measurement and verification professional to report on the energy usage. That report then had to be submitted to SANEDI, who issue a certificate. The certificate is the documentary proof that must be submitted to SARS when claiming the Section 12L allowance.
- Section 37B has very specific definitions relating to environmental treatment and recycling assets and environmental waste disposal assets, which must be met before the allowance can be claimed.

- Section 37C requires agreements with National Environmental Management to be in place, before allowances can be claimed.

It is clear, as noted in section 2.4, that there are incentives in the Act, but qualifying for them is neither easy nor free. Because they are so complex, they cannot really be seen as incentives. The burden of proof is on the taxpayer before the incentive can be claimed, which could be more discouraging than incentivising.

6.2.2 Conclusion on what will be considered environmental conservation from a winery's perspective and the income tax results thereof in South Africa

The aim of this secondary objective was to determine the type of environmental conservation in which a winery can invest and how the tax incentives discussed in section 2 could be applied to those specific scenarios. This objective was met by doing the literature study.

There are various types of environmental conservation in which wineries can invest, such as waste management in the form of recycling or the use of solar energy to generate solar power. The conservation of fauna and flora would also be considered environmental conservation (Section 3.3). There are national codes regulating the wine industry which specifically encourage environmental conservation, which are the IPW and the BWI. Taking into account that these codes are only semi-regulatory, they are not seen as law. The IPW is a semi-regulatory system providing guidelines that conform to international standards for 'Good Agricultural Practices' for farms and 'Good Manufacturing Practices' for cellars to produce wines that are healthy, clean and environmentally friendly. The BWI code gives biodiversity guidelines on how to produce sustainable wine in a threatened natural habitat like the Cape Floral Kingdom (Section 3.2).

In most cases, the wineries would be able to apply the incentives as determined in section 2, but this might prove difficult, as certain specific requirements must be fulfilled before each incentive can be used. As the codes already, by design, enforce some of those requirements before recognition can be obtained according to the code, it seems relatively easy to fall within the ambit of the law and follow the incentives. However, there are so many specifically defined requirements in the law before following the incentives in the Act that even adhering to the industrial codes is not sufficient. Below is a table summarising the available sections within the Act, and aligning the requirements within the codes with the applicable section.

Applicable section available within the Act	Requirements within the codes	Additional comments
Section 11D – Research and Development.	There are no specific requirements in any of the codes, in order to promote research and development in the wine industry.	Even though no code requires wineries to do research and development, there is a body, Winetech, to which wineries can contribute, and in such a way be entitled to claim the Section 11D deduction, as Winetech is responsible for research and development in the wine industry.
Section 12B – Deduction in respect of certain machinery, plant, implements, utensils and articles used in farming or production of renewable energy.	There are no specific requirements for any of the codes that promote the production of renewable energy. The codes do, however, promote reduction of the use of fossil fuels.	
Section 12K – Exemption of certified emission reductions.	This is applicable to a specific project, and would require specific registration. This incentive would therefore not be available to wineries by merely adhering to the industry codes.	
Section 12L – Allowance for energy efficiency savings.	In order to obtain the IPW seal, wineries are required to keep records of their energy consumption, which would have to align with the requirements of Section 12L.	
Section 37B – Deductions for environmental	The IPW code encourages waste management and is	Seeing that the code is not regarded as law, the wineries

expenditure.	part of the requirements for obtaining the 60% approval which would allow for the 37B deductions.	would not be entitled to claim the 37B deduction, unless SARS were to rule that the codes can be seen as law.
Section 37C - Deductions for environmental conservation and maintenance.	The BWI acknowledges that many of the wine lands in South Africa form part of the Floral Kingdom and that the wineries would have to invest in environmental conservation for which they could then get a 37C deduction.	

Table 5: Comparison between tax incentives available and codes applicable to wineries. (Authors own compilation)

6.2.3 Conclusion on incentives in the Income Tax Acts of other wine producing countries

The purpose of this secondary objective was to research how South African legislation compares with that of other countries when it comes to incentives in their income tax legislations regarding environmental conservation. The objective has been met by specifically investigating the tax legislation of Australia, France and the state of Oregon. Australia (*Section 4.2*), France (*Section 4.3*) and the state of Oregon (USA) (*Section 4.4*) were selected, as they are among the top 10 wine-producing countries in the world and have signed the Kyoto Protocol, and are therefore committed to reducing their carbon footprint.

France and Australia have a R&D credit or tax offset similar to South Africa’s Section 11D deductions, which are designed to encourage research and development in the respective countries.

Australia provides for a deduction in respect of eligible non-till seeders used in the farming and vinification process to reduce soil erosion. None of the allowances offered by South Africa address the minimisation of soil erosion. The environmental impact assessment and environmental protection section which were repealed in June 2013 would have been similar to the incentive granted in South Africa in terms of Section 37B, relating to environmental recycling assets.

Other than the R&D credit granted in France for expenses incurred in urban development, there is also a tax reduction granted in respect of expenses incurred in the maintenance and

protection of natural heritage such as parks and reserves, which is similar to the incentive granted in South Africa in terms of Section 37C.

Oregon offers incentives similar to South Africa's incentives for having 'environmental treatment and recycling assets'. Further they have incentives that encourage the use of alternative fuel, using energy conservation facilities such as solar or wind power plants. They grant tax credits for costs incurred in the production of biomass which can be used to produce biofuel.

Based on the review of the respective tax legislation of the various wine producing countries the conclusion was reached that South Africa has more tax incentives available than Australia and France. The tax incentives granted by Oregon are more aligned to the incentives available in South Africa and those incentives are more focused on encouraging the use of alternative fuels such as solar power.

6.2.4 Conclusion to the wine industry's perspective on environmental conservation and tax

The purpose of this secondary objective was to research the views of South African wineries in terms of tax incentives for investing in environmental conservation. When questionnaires were sent out to wineries, they returned a limited response. The different wineries hold varying opinions on the tax incentives available in the Act. In section 5.3.2 it was noted that Winery B do various activities in order to ensure that they invest in environmental conservation but due to the specific requirements in the tax legislation they are not able to fully utilise the incentives available. Wineries do invest in environmental conservation in different ways. Some wineries maintain that there are no incentives in the Act, and whatever incentive there is becomes diminished by other Acts imposing more taxes, such as excise taxes.

6.3 Overall conclusion

The main objective was to determine whether there is a benefit for wineries from the South African income tax perspective when investing in environmental conservation. It is clear from the conclusions reached for the secondary objectives that there are types of environmental conservation in which wineries can invest and, if the requirements of the sections in the Act are met, there can be substantial incentives whereby wineries can benefit. However, the requirements are so stringent that they would discourage environmental conservation based solely on the possibility of receiving an income tax deduction.

6.4 Recommendations

Based on the findings in the research, it is recommended that the tax incentives for wineries be aligned with the codes already applicable in the industry. These codes have specific requirements, as seen in section 3 and section 6.2.2, if wineries are to be entitled to label their wines as meeting the requirements of the specific codes. Registered IPW members harvest 97% of the grapes in South Africa, proving that already the majority of grape and wine producers are conforming to the rules of the IPW. The IPW have requirements, as seen in section 3, that align with the tax incentive requirements found in the Act. However, as the IPW is seen only as semi-regulatory, the incentives cannot be used, as they are not required by law. This is the case with Section 37B. It is therefore recommended that the South African revenue authorities consider the requirements required by the IPW code and issue a special class ruling applicable to the industry in respect of environmental conservation. This would enable the wineries to use the incentives. It would also encourage production to grow the country's exports and improve the country's carbon footprint.

There is currently a section 11D deduction available for wineries who contribute to Winetech due to a special ruling from the South African revenue authorities. This ruling is currently only applicable till the end of 2015 the recommendation would be to request an extension on the ruling.

A recommended empirical study would be to obtain a clear indication from the wineries what their definition of 'environmental conservation' is and what they perceive to be incentives to invest more in 'environmental conservation', and to compare this view with those of wine producers in other countries, similar to the study done by Gergely Szolnoki in 2013.

Further benefits could be derived from comparisons to the other wine producing countries in the world in order to gain a clear understanding of what other incentives are available in other wine producing countries in order to gain an understanding of how to encourage environmental conservation through tax incentives.

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Annexure

Annexure 1: Questionnaire sent to wineries

SURVEY OF ENVIRONMENTAL CONSERVATION AND TAX INCENTIVES RELATING TO WINERIES

General Questions:

1. Do you invest in environmental conservation in any form at your winery? *(Mark with a 'X')*

No (1)	Yes (2)	Unsure (3)

2. What type of environmental conservation do you invest in? (Mark with a 'X')

	No (1)	Yes (2)
2.1. Type of environmental conservation		
2.1.1. Recycling waste.		
2.1.2. Making use of solar power.		
2.1.3. Making use of wind power.		
2.1.4. Conserving land		
2.1.5. Other		

2.2. Please give a short description of the environmental conservation applied in the winery:

- 2.2.1. *Recycling waste:* _____
- 2.2.2. *Making use of solar power:* _____
- 2.2.3. *Making use of wind power:* _____
- 2.2.4. *Conserving land:* _____
- 2.2.5. *Oth* _____

3. Do you adhere to the Integrated Production of Wine (IPW) standards?

No (1)	Yes (2)

4. Do you achieve the 60% necessary to get the Sustainable Wine Seal?

No (1)	Yes (2)

5. Do you contribute to Winetech?

No (1)	Yes (2)

6. Are you aware that part of the contributions to Winetech are deductible under section 11D of the Income Tax Act?

No (1)	Yes (2)

7. Do you have any research and development programmes?

No (1)	Yes (2)

7.1. If "Yes", please give a short description of what your research and development programmes entails.

8. Please tick the appropriate box.

- 8.1. Do you make use of solar power in the production of your wines?
- 8.2. Do you make use of wind power in the production of your wines?
- 8.3. Do you make use of water power in the production of your wines?
- 8.4. Do you recycle your waste and use it to produce bio-ethanol?
- 8.5. Do you recycle your waste and use it to produce bio-diesel?
- 8.6. Do you have a registered Clean Development Project with the Department of Minerals and Energy?
- 8.7. Do you keep proper records of your energy usage?
- 8.8. Would you pay for a Measurement and verification specialist, if it meant that you could get a tax benefit from the report that the specialist would provide?

No (1)	Yes (2)

9. Do you have an environmental treatment and recycling asset, as defined below?

Environmental treatment and recycling asset is any air, water and solid waste treatment and recycling plant or pollution control and monitoring equipment, which is used in the course of a taxpayer's trade in a process that is ancillary to any process of manufacture.

No (1)	Yes (2)

10. Do you have an environmental waste disposal asset, as defined below?

A waste disposal asset means any air, water and solid waste disposal site, dam, dump, reservoir, or other structure of a similar nature, or any improvement thereto, if the structure is of a permanent nature and used in the course of a taxpayer's trade in a process that is ancillary to any process of manufacture.

No (1)	Yes (2)

11. Please tick the appropriate box.

- 11.1. Do you own land which forms part of the Cape Floral Kingdom?
- 11.2. Are you a member of Biodiversity and Wine Initiative (BWI)?
- 11.3. Do you have a biodiversity agreement in terms of the National Environmental Management Biodiversity Act, 2004?
- 11.4. Is any of your land declared as a national park?

No (1)	Yes (2)

Questions relating to tax incentives specifically:

12. Please tick the appropriate box.

- 12.1. Tax incentives play a part in your decision to invest in environmental conservation.
- 12.2. There is sufficient incentive within the Income Tax Act to encourage you to invest more in environmental conservation.

Strongly disagree (1)	Disagree (2)	Neutral/ Unsure (3)	Agree (4)	Strongly agree (5)

12.3. More substantial tax incentives would encourage me to invest more in environmental conservation.

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13. Do you use any of the following deductions/ allowances when completing your annual tax return?

- 13.1. Section 11D – Deduction for research and development expenditure incurred, and specifically for wineries, partially the contributions made to WineTech.
- 13.2. Section 12B – Expenditure incurred relating to the generation of renewable energy such as solar, wind or water power, and the creating of bio-ethanol or bio-diesel.
- 13.3. Section 12K – Revenue generated from a clean development project, exempt from gross income.
- 13.4. Section 37B – Capital allowance for environmental treatment and recycling asset or waste disposal asset.
- 13.5. Section 37C – Section 18A deduction available for expenditure incurred for land that are conserved.

No (1)	Yes (2)

14. Describe any other form of conservation which you would consider to be environmental conservation. (Please describe)

15. Do you think that anything more could be done by the Income Tax authority to encourage you to perform environmental conservation? (Please describe)

16. Do you think anything more could be done by the Income Tax authority for /do you think more concessions could be given in the Income Tax Act for environmental conservation already performed by you? (Please describe)
