

# Environmental Pollution and Climate Change: An Ethical Evaluation of the Carbon Tax Policy in South Africa

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## Abstract

Environmental pollution and climate change have been considered the main environmental challenges affecting the world's ecosystem, including that of South Africa. They cause poverty, land degradation, and health hazards. One of the leading causes and contributing factors of environmental pollution and climate change is carbon emissions into the atmosphere. As a way to curb these emissions, Carbon tax policy has been introduced in various countries, including South Africa. In 2019, a Carbon tax was introduced to assist South Africa in delivering on the commitments made in the Paris Agreement in 2015. If the policy is effectively applied, it will raise revenues while reducing carbon dioxide emissions. Before and after introducing the Carbon tax policy in South Africa, there has been debate and discussion on its impact on the environment, economy, and society. Based on the debate and discussion, it has been observed that more attention is paid to the economic implications and benefits of the tax on South Africa than the ethical implications. Thus, this paper aims to contribute to the ongoing debate and discussion by ethically evaluating the Carbon tax policy in South Africa.

## Keywords

Carbon tax (Policy), Environmental Pollution, Climate Change, Greenhouse Gas, Environmental Stewardship

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## Introduction

In South Africa, the carbon tax idea has been under discussion since 2010. In 2019 the president of South Africa, Cyril Ramaphosa, signed the Carbon Tax

Act into law (Government of South Africa 2019). This was done because carbon significantly contributes to environmental pollution and climate change. The carbon tax policy was enacted on the 1st of June 2019 (Government of South Africa, 2019). The Act was gazetted on 23 May 2019. The main objective of the carbon tax policy in South Africa is “to reduce the greenhouse gas (GHGs) emissions in a sustainable, cost-effective and affordable manner” (National Treasury 2019, p.1). The policy serves as a guideline for environmental pollution and considers the environment’s importance. It guides carbon emitters to limit their carbon emission into the environment and the atmosphere. This creates awareness among firms to use more clean, suitable and sustainable technologies that will not harm the environment. Furthermore, the policy provides a penalty in the form of a fine for companies or individuals that transgress the policy by emitting carbon into the environment.

Environmental pollution and climate change are the main environmental issues affecting the world’s ecosystem. This ecological crisis has had a significant impact on the planet. Some examples include land degradation and health hazards. Talking about environmental pollution and climate change, scholars such as Segun Ogungbemi, Godfrey Tangwa, and Philomina Aku Ojomo have contributed to the discourse. Ogungbemi, in his paper, *An African Perspective on the Environmental Crisis*, reflects on the nature of the environmental crisis in Africa. He considers the ecological crisis one of humanity’s most serious global problems. Ogungbemi notes that within the context of sub-Saharan Africa, three critical points need to be considered in understanding the nature of the environmental crisis, namely ignorance and poverty, science and technology, and political conflict, which includes international economic pressures (Ogungbemi, 1997; see also Ojomo, 2011; Okyere-Manu, Morgan and Nwosimiri 2022, pp.98–99). To understand the environmental crisis in Africa, one must understand the traditional and modern societal structures that have led to environmental degradation (Ogungbemi, 1997). Tangwa (2000) highlights that “an anthropocentric ethic, even an individualistic one, if it were sufficiently rational, need not necessarily endanger the environment, just as an eco-bio-communal one may not necessarily forestall all dangers to the

environment” (pp.392–393). Through this anthropocentric approach, humans have negatively destroyed the planet. The concern for environmental pollution is an ongoing dilemma caused by anthropogenic actions. We, as human beings, are destroying the earth because of the bad decisions we make, and there is, thus, a need for us to take responsibility for our actions in some way.

According to Ojomo, “the causes of environmental pollution and degradation, environmental injustice, poverty of effective coping and management strategies in challenging the environmental crisis, and lack of a viable environmental ethics that takes cognizance of the peculiar dynamics of the environmental crisis in Africa are issues worth courting philosophically” (2011, p.572). Ojomo is of the view that there is an environmental crisis in Africa, and this should be addressed. Human’s reliance on the environment cannot be overemphasised. Hence, “environmental preservation strategies are to protect the natural environment from excessive human abuses to benefit current and future generations as well as nature itself. These strategies are to prevent the destruction of the environment and avert environmental dangers and atrocities such as global warming that leads to droughts, floods, and other devastating environmental health hazards” (Okyere-Manu, Morgan and Nwosimiri 2022, p.102).

This paper aims to contribute to the discussion on environmental pollution and climate change by ethically evaluating the carbon tax policy in South Africa. This paper is divided into three sections. In the first section, we will give an overview of the carbon tax policy in South Africa. We will argue that the carbon tax policy alone cannot repay the damage done to the environment on its own, curb environmental pollution or stop people from polluting the environment. In the second section, we will discuss the issues relating to the payment of carbon tax to reduce greenhouse gas (GHG) emissions in South Africa. And in the third section, we will examine carbon tax through the lens of the ethical theory of environmental stewardship and show how one can get individuals, companies and even the state to start viewing the environment through environmental stewardship.

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## **Carbon Tax Policy in South Africa**

A carbon tax is a “market-based approach to confining emissions within a specified budget” (Garnaut 2007, p.10). Kimberly Amadeo states, “carbon tax is a fee that a government imposes on any company that burns fossil fuels. The most widely discussed are coal, oil, gasoline, and natural gas” (2019, p.1). Carbon tax aims to reveal the actual costs of carbon emissions, whom this cost is intended for, and how the environment benefits from it. Taxation can occur at various points, from the processing point up to the point of combustion, just before the CO<sub>2</sub> is discharged. Carbon tax revenue can fund productive investments to accomplish the United Nations Sustainable Development Goals (UNSDG), which focus on reducing poverty, environmental degradation and inequality (2020). The carbon tax is calculated per ton; every CO<sub>2</sub> emission is measured, and one pays for it per ton. In addition, every company must file and report on the amount of carbon they emit into the environment.

Patrick Criqui, Mark Jaccard and Thomas Sterner state that most economists see a carbon tax as the central dimension of any climate policy (2019, p.6280). Economists maintain that carbon pricing, mainly using the method of a carbon tax, is the climate policy with the smallest fee system to reduce greenhouse gas emissions. An indication that carbon tax may effectively weaken carbon pollution, Margery Stapleton, Helena Lenihan, Sheila Killian, Breda O’Sullivan, and Kemmy Business maintain that carbon tax can be “effective in influencing taxpayer behaviour” (2006, p.23). A carbon tax is a good step towards sustainable development because the assumption is that the tax generated will assist in shifting the behaviour of carbon emitters.

Michael Sandel (1997) argued that “relying on putting a price on carbon to achieve a government’s obligations is ethically problematic without regard to the details of the pricing scheme” (p.20). Can we pay back the non-renewable resources? An ethical approach to climate change also requires that polluters should pay for the harms and damages they create as well as the costs associated with reducing the pollution. Carbon tax schemes ignore the duty of GHG emitters

to compensate those whom their GHG emissions have harmed. The amount of the tax owed is based on the amount of money needed to reduce greenhouse gas emissions, and, as mentioned, the compensation of those harmed is disregarded.

Melissa Strydom and Carmen Bradfield (2019, p.1) indicate that “carbon tax is South Africa’s most far-reaching and substantial response to climate change to date.” According to the National Treasury (2019, p.1), “the primary objective of the carbon tax is to reduce greenhouse gas (GHG) emissions in a sustainable, cost-effective and affordable manner”. This is so because the emission of GHGs due to CO<sub>2</sub> emissions and the burning of fossil fuels is one of the factors behind climate change, and climate change is considered one of humankind’s biggest challenges. Extreme carbon emissions are recognised as a fundamental cause of global warming (Meinshausen et al., 2009), and GHG effects have drawn international attention. This law is essential in South Africa as it is seen as a first step towards curbing the issue of carbon emissions and limiting the effects of environmental pollution, which, in turn, lead to the ongoing problem of climate change.

A carbon tax is a tax on CO<sub>2</sub> emissions which are caused by the combustion of fossil fuels. Michael Fakoya (2013, p.40) states, “Taxing CO<sub>2</sub> per ton is for the effective raising of revenue whilst ensuring that the emission of CO<sub>2</sub> is reduced. According to the National Treasury (2019, p.1), “the Carbon Tax Act gives effect to the polluter-pays-principle for large emitters and helps to ensure that firms and consumers take the negative adverse costs (externalities) into account in their future production, consumption and investment decisions.” Furthermore, the carbon tax encourages companies to look for new approaches to operating with carbon-clean technologies. This will benefit not only the present generation but future generations as well. So, given that the carbon tax policy is new in South Africa, the government must be at the forefront to champion it. This is because the presence of the government is essential as there is a need for the management, monitoring and control of the amount of damage that carbon does to the environment. The management, monitoring and control assist in integrating the environment, the economy and the society for improved sustainable development.

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The carbon tax policy aims to lessen CO<sub>2</sub> emissions from fossil fuels, especially electricity and fuel consumption. The policy seeks to incentivise consumers and organisations to find alternatives for goods with high carbon concentrations and move towards low-carbon concentrations (Creedy and Sleeman, 2006). Customers pay the tax in the form of a customer price index (CPI). They pay through the goods and services they purchase. The South African government accentuated that the carbon tax policy will increase the price of energy because energy, as an essential good in production and household consumption, contributes significantly to the carbon emissions footprint. In addition, a carbon tax can be considered “backsliding” because it can cause harm out of proportion to low-income recipients and marginalised families (Callan et al., 2009).

In South Africa, the carbon tax policy is designed differently from other countries which have implemented such a policy. Since it is a new policy, it is designed according to phases, and different approaches are applied within these phases. According to the National Treasury, the “carbon tax will initially only apply to scope one emitter in the first phase. The first phase will be from 1 June 2019 to 31 December 2022, and the second phase from 2023 to 2030” (2019, p.1). This shows that there are three phases, and in these phases, different methods and principles will be used for the GHG emitters to pay the tax. The first phase will last for four years; from there, the second phase will start and last for eight years, after which the third phase will follow. However, how long the third phase will operate has not been stated.

The above will be achieved by placing a uniform price of R120 per ton of CO<sub>2</sub> emissions, regardless of the emissions source, whether from electricity production or fuel consumption from transportation (Government Gazette, 2019). Since a carbon tax would lead to higher prices for a carbon-intensive organisation’s goods and services, developing and investing in innovative and efficient renewable energy, carbon sequestration, or other technologies would be a potentially rewarding venture. This, therefore, means that organisations need to

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increase their spending on research and development costs for cleaner energy and technology.

In South Africa, the amount of carbon tax is measured differently from other countries implementing carbon tax policies. In South Africa:

Emitters will instead have the option to use the ‘emission factors’ established by the Intergovernmental Panel on Climate Change. These factors give an approximation of greenhouse gasses emitted depending on how much fuel was combusted or product was produced. Over time, more accurate domestic emission factors will be developed in South Africa (Deloitte, 2023).

Whilst having a joint capacity over the threshold, when one’s actions are subjected to a carbon tax, one must only pay tax on the actual emissions. However, emissions are both problematic and expensive to measure accurately. This raises an ethical question: Who determines whether the emissions are measured correctly? In addition, domestic emissions cannot be accurately measured, making it a moral issue as we all have to take responsibility for the sustainability of the environment.

Given the discussion thus far, we think that carbon tax policy alone cannot repay the damage done to the environment. Also, we believe that carbon tax policy cannot, on its own, curb environmental pollution and climate change. Environmental pollution and climate change are existential threats to humanity, and different measures have been implemented to curb the dangers they pose to the environment. One of the measures, as discussed previously, is implementing a carbon tax policy. Here, emitters are expected to pay a particulate amount as a fine based on the amount of carbon they emit into the environment. As stated in the previous section, the first phase of the carbon tax is “R120 per ton of carbon dioxide equivalent emissions. This rate will increase annually by inflation plus 2 per cent until 2022, and annually by inflation thereafter” (South African Revenue Service, 2021). Since we are in the first phase, the carbon tax is charged at R120 per ton, and there are allowances awarded to the emitters that follow the rules correctly. These allowances lower the tax rate to enable emitters to pay the tax. However, this

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only applies to the first phase because rules will be stricter in the second phase. Mark Hewitt emphasises that “these allowances are limited to a maximum of 95% discount on the tax rate (currently R120 per ton of CO<sub>2</sub> equivalent). Therefore, the effective rate of Carbon Tax is expected to range between R6 and R48 per ton of Carbon Dioxide equivalent to GHG emissions during Phase 1” (2019). This is the price that the emitters are expected to pay. However, it is worth noting that the price set to be paid by the emitters should not be the main reason why emitters should use cleaner technology because they will still have to pay for it too. The emitters should thus not only focus on economic values and gains but also be aware of their moral responsibilities and duties towards the environment.

No perfect amount set can repay (or compensate for) the damage that human-induced actions have caused. There is a possibility that the policymakers who established the carbon tax policy did so with the impression that it would right the wrong by repaying for the damage humans have caused to the environment. If this is the possible reason for the policy, we think the policymakers are wrong in that no matter the amount of money paid; it cannot repay the damage already done to the environment. In other words, no “good enough” price can be set to pay for the damage already done. The damage has been done, and no amount of money can undo what has been done. Money cannot rectify everything. For example, the damage done to the ozone layer due to carbon emissions into the environment cannot be repaid or “fixed” with money. In a similar vein, the melting of glaciers cannot be fixed or repaired with cash. However, given that it is our moral responsibility and duty to take care of the environment, the carbon tax payment is paramount because it will go a long way, if handled properly, in preventing further environmental damage. We must protect and be stewards of the environment for the present and future generations.

A carbon tax should be implemented to “achieve environmental goals at least cost” (IMF, 1998). In light of this, policymakers have tried to make the tax affordable to people to curb environmental pollution. The policymakers viewed the policy as the most efficient way to cut GHG emissions – “the single most



effective mitigation instrument” (IMF 1998). The carbon tax policy in South Africa is meant to lower GHG emissions at a low cost, which the emitters will supposedly be able to afford. The Organization for Economic Cooperation and Development (OECD) corroborated this when they underscored that carbon tax policy will help lower carbon emissions’ negative impacts (2008). From the above, we can deduce that the aim of the carbon tax policy is, in general, to curb environmental pollution.

Carbon tax policy does not assure that the behaviour of the emitters will change and that the level of carbon emissions will decrease. Because of this, it could be argued that irrespective of the amount of tax levied against the emitters, their actions would not necessarily change. For the policy to work, it is up to the emitters to decide whether they want the change. Even if the tax is set at an affordable price, this does not mean that people will comply; if people do not comply, it nullifies the policy because it cannot work on its own – the policy needs the support of people.

Given the discussion above, a carbon tax cannot repay the damage done to the environment. Our reason for this is that carbon tax policy does not necessarily ensure a certain level of emissions reduction. Carbon tax policy is presented as a working solution, but its viability is not assured, given that emitters are rational beings capable of making decisions that will favour themselves at the expense of anything, including, for example, the environment. The emitters can pay the tax and continue polluting because they can afford it. Thus, people will keep polluting the environment because deciding whether to comply with the policy is up to them.

### **Issues Relating to the Payment of Carbon Tax**

In this section, we aim to briefly discuss the issues relating to the carbon tax payment to reduce GHG emissions and move towards a sustainable environment in South Africa. We will restrict the discussion to three points which we consider essential and intriguing. These are: (1) the payment of carbon tax alone cannot

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sustain the environment, (2) the idea that carbon tax payment will instil fear in people, (3) and the payment of carbon tax.

There are issues regarding the payments of a carbon tax. The first issue is that the carbon tax payment alone cannot sustain the environment. Although the payment of carbon tax seems smart, the payment alone will not help ensure environmental sustainability. As Fakoya points out, “South Africa is a developing country with many socio-economic problems ranging from poor economic growth, poverty, unemployment and corruption amongst others. The introduction of the carbon tax is most likely to worsen some of these problems” (2017, p.5). There might well be tax-paying defaulters. However, some will not mind paying the tax because they can afford to do so while others might have someone “scrap” the payment for them. Thus, we are of the view that the payment of carbon tax alone will not help in sustaining the environment. However, we do not believe that it will not help; instead, for environmental sustainability, a tax payment needs to be combined with good work and environmental stewardship, which come with the idea of individual and communal responsibility and decision-making. Only when the latter is considered can the carbon tax payment be effective, but it cannot work independently. This leads to the second issue, which concerns the idea of fear in people.

The second issue is that carbon tax payments will instil fear in people. Because of the many socioeconomic problems evident in South Africa, implementing carbon tax payments could result in suspicion, especially among those who cannot afford the cost. Complaints from people that cannot afford the fee and are dependent on the systematic emission of carbon (through no fault of their own) to survive will ensue. Although the payment of carbon tax will serve as a deterrent to emitting carbons (which is the third issue), it will come with problems of its own – many people do not know about the payment, and many people who struggle to make ends meet (and who are carbon emitters) will not be able to afford it.

The third issue is that carbon tax payments would serve as a deterrent to those polluting the environment. From one perspective, we could argue that it will

deter people from polluting the environment. However, at the same time, some people will use it to exploit others. For example, some businesses might increase the price of goods, indirectly funding their carbon tax payment from higher profits. Customers, who will be unaware of this, will thus be used as a means for businesses to make carbon tax payments. John Creedy and Catherine Sleeman point out that “the prices of the more carbon-intensive goods increase proportionately more than those with lower intensities” (2006, pp. 333–334). This means that the goods that produce more CO<sub>2</sub> will be more expensive than those that make lower gas intensities. For example, electricity and petrol will be more costly than other goods and services that are carbon-free. What businesses are simply doing is offloading their tax burden to the customers. This is problematic because the customers are at the receiving end. Thus, the implication of offloading the tax burden to the consumers is that the customers will suffer at the end of the day.

From above, carbon tax payment might not deter businesses from polluting the environment because they can afford it by charging their customers more. So, while the carbon tax may deter people, it will not prevent everyone because some people can quickly transform it to benefit them. If that happens, we are apt to think that the payment matters to these people, and this should not be the case. Therefore, a carbon tax should not only be about the money, but environmental sustainability should be the main focus.

Given the above, it would be a good idea for those behind implementing carbon tax payments to devise a strategy where individuals/business owners should consider their environmental responsibility. They should be held accountable for their actions against the environment. Here, the question should be asked: how should businesses themselves model themselves in a way that would promote environmental responsibility and stewardship without necessarily implementing taxes? This question is of utmost importance because if methods or strategic plans are not established to show how businesses should model themselves, there is the possibility that some big companies will continue to exploit the environment for

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their gain. And those businesses that cannot afford the tax might be forced to close.

Furthermore, a carbon tax can negatively impact low-income households in the form of a higher cost of living due to increases in the price of electricity. Increasing the petrol price would also impact living costs through higher transport costs, particularly taxi fees. Thus, low-income households would be set back even further because they would be paying higher carbon prices used, the same prices as the rich, despite the latter possibly being responsible for emitting more. This will occur in a context in which GHG emissions are not decreasing. Based on this, we are inclined to think that due to the poverty rate in South Africa, the carbon tax policy should not have been implemented; instead, another method should have been considered. As much as the policy is there to lower GHGs, we have to acknowledge that the policy is more about boosting the economy. This means that irrespective of whether the policy achieves its aim of reducing carbon emissions, the economy will still benefit, and low-income civilians will still be negatively affected. Therefore, as much as the policy is there to help achieve sustainable development, we believe South Africa could develop a more reasonable and equitable method for the country as a whole.

### **Carbon Tax and Environmental Stewardship**

Environmental stewardship can be defined as “the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society” (Worrell and Appleby, 2000, p.263). Similarly, it is described as “responsibly managing activities with due respect for the health of that environment by being the environment’s caretaker or custodian” (Department of Environment and Heritage, 2005). This means that environmental stewardship is about being ethically responsible for the environment. Furthermore, ecological stewardship may be understood as “an ethical responsibility when short-run profit-seeking behaviour dictates practices contrary to long-term maintenance of [environmental] quality [of natural resources]” (Sauer

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*et al.*, 2011, 32). It is about taking ethical responsibility when decisions are to be made, be it short-term or long-term, that may affect the environment.

Environmental stewardship can be helpful here in terms of individual and company decision-making. According to Daniel Kahneman and Amos Tversky, “the behaviour and decision-making of a self-interested individual will reflect the higher values placed on goods owned by that individual, referred to as the endowment effect” (1979). Jon Pierce, Michael O’Driscoll and Anne-Marie Coghlan explain this well. Their explanation is based on separating individuals, children and older people “from their possessions to illustrate this endowment effect” (2004, p.85). They explained that “ownership feelings and ‘self-identity’ may be tied up with physical objects but also with facets of employment where a person strongly identifies with a particular profession” (Pierce *et al.* 2004). It is, therefore, essential to point out that the feelings of ownership are not narrowed down to private goods only, but they also apply to communal goods. The sentiments of ownership also apply to entire ecosystems or landscapes.

The connection between the feelings of ownership and environmental stewardship rests on the core values of an individual’s decision-making. The feelings of ownership and environmental stewardship are “built on the hypothesis that a person’s core values form a foundation of consistent ethical values and goals leading to a set of moral norms and aspirations that influence individual decision making and behaviour” (Worrell and Appleby, 2000; Van Slyke, 2007). Environmental stewardship, therefore, considers that there may be a situation where individuals can be stewards of a particular entity or set of commodities, and with that in mind, the ideas of responsibility, autonomy, trust, goals, visions and reputation enhancement apply. With the help of environmental stewardship, an individual becomes fully aware and develops the qualities mentioned above because they value that of which they have ownership. As a result, the individual can make decisions that protect what they have and, at the same time, take full responsibility for their actions.

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Environmental stewardship “provides a general framework for the relationship between attitudes, beliefs, intentions, and behaviour” (Azjen, 2001). Therefore, this theory can assist in changing emitters’ behaviour, enabling them to make good decisions to help sustain the environment. Every person has a responsibility and an obligation to protect the environment. We need the natural environment as much as it requires us to conserve it, and we cannot survive without it. Therefore, making good decisions while being aware that we are stewards of the environment is a good step that would help lower GHG emissions in South Africa. With this in mind, it is essential to underscore that individuals, through their beliefs and attitudes, can be good stewards of the environment and that good decision-making about the things that affect the environment could help reduce GHGs in South Africa. Environmental stewardship can thus promote responsible citizenship in this country.

Can communal decision-making do better than individual decision-making regarding lowering or curbing GHGs? Most decisions made have been thought through and processed individually. A decision processed by an individual based on values and beliefs can either harm or benefit a community and the natural environment. Thus, when “others share such normative values, and collective goals overlap, it is shown that there is an increased likelihood of that person acting in the interests of achieving collectively shared objectives” (Van Slyke, 2007; Mills and Keast, 2010). The communal decision-making method brings out various ideas, information, trust and options that lead to a better decision. Given this, we are inclined to think that environmental stewardship is grounded on a collective mutual understanding of trust and cooperation. With environmental stewardship and consensual communal knowledge and decision-making, a carbon tax can be effective as there is information sharing and engagement concerning reducing GHG emissions.

Given that we already know that environmental stewardship “provides a general framework for the relationship between attitudes, beliefs, intentions, and behaviour”, it can, therefore, assist in changing the behaviour of community

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members, enabling them to make good decisions that will help sustain the environment. If individuals in the community become aware that they are stewards of the environment, they can work as a collective group to develop well-deliberated decisions to help sustain the environment. Furthermore, with community members being unified, a good decision can be made as different views would be considered before the final decision. This clearly shows a higher possibility of making good decisions as a community than as an individual. Based on this, therefore, we can firmly say that when it comes to the issue of reducing or curbing GHGs, collective decision-making stands a better chance of coming up with better solutions than individual decision-making.

How can one get individuals, companies and the state to start viewing the environment through the lens of environmental stewardship? In response to this question, we think that environmental stewardship, as a concept, can help in conscientising individuals, companies and the state about the importance of this ethical lens and how they can adopt it. Proper use of the concept can encourage and challenge individuals, companies and the state to implement environmental awareness campaigns in their respective departments or communities that will communicate the importance of sustaining the environment through environmental stewardship. These campaigns should also educate those in their departments or communities on new laws concerning the protection of the environment, for example, the newly implemented carbon tax policy. They should be educated about it so that when the prices of carbon-induced goods (such as electricity and petrol) increase, they can understand why that is happening.

Regarding the individuals, one can work with the community leaders to engage with the individuals to start viewing the environment through the lens of environmental stewardship. Community members are needed because they can help obtain and communicate indigenous knowledge about the environment and its sustainability. A lot can be achieved with community leaders as African people respect and listen to their elders and chiefs. The indigenous knowledge system is a traditional way that African people pass down knowledge in rural areas and some

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urban areas. For example, information is passed down through folktales, proverbs and storytelling. The community members usually use this knowledge because it is in a language they speak and thus is easier to comprehend. With indigenous knowledge, younger and older generations will know the importance of sustaining the environment and become environmental stewards.

The above method can also be applied in the state and companies. To get the state and companies to adopt these ethical lenses, there is a need for experts to work with the leaders of the state and those of the companies. This will enable the leaders to communicate to their colleagues and staff the importance of environmental stewardship. Knowing that the information is from their leaders, they will take it seriously. Their leaders can convince them to see themselves as environmental stewards. They can be forced into taking full responsibility for their decisions concerning the environment and its sustainability. Because as environmental stewards, their attitude to the environment will change, and they will develop a more profound moral responsibility that can contribute to ensuring a sustainable environment.

Finally, focus groups would also help educate and make individuals, companies and governments aware of the importance of viewing the environment through the lens of environmental stewardship. With the aid of these groups, we would leverage the understanding of what the environment and environmental stewardship are all about. Focus groups are important because they are intimate and more knowledge can be passed on via small groups. In addition, since carbon tax is one of the strategies implemented to lower carbon emissions in the environment, through the lens of environmental stewardship, focus groups would be able to assist in obtaining other solutions on how carbon emissions in the environment can be lowered.



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## Conclusion

In place of the traditional conclusion that seeks to summarize what we have argued for, we wish to point out briefly the importance of why we need to act to curb environmental pollution and climate change. According to Greta Thunberg (2018), “We have had 30 years of pep-talking and selling positive ideas, but I am sorry it does not work because if it had, the emissions would have gone down by now... and yes, we do need the hope of course we do, but one thing we need more than hope is action”. This is true because there is no longer time for pep talks – we know the problem and its causes. Carbon tax alone cannot ensure the sustainability of the environment. However, given that South Africa is still a developing country struggling to keep the economy together, we think the tax is a reasonable and necessary step towards reducing GHG emissions in South Africa and is certainly better than doing nothing. Although a carbon tax is a good strategy for mitigating climate change, environmental pollution and reducing GHGs, such a tax might cost the country more than it bargained for.

## Declaration of Conflict of Interest

We declare that we do not have any conflict of interest.

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