

Conceptual “envirobusion” in 21st century environmental issues in South Africa: past practices abusing present thought

Elize S van Eeden
School for Basic Sciences,
Vaal Triangle Campus
North-West University

*Do you think you can take over the universe to improve it? I do not believe it can be done. The universe is sacred. You cannot improve it. If you try to change it, you will ruin it. If you try to hold it, you will lose it.*¹

*Whenever you bring your attention to anything natural, anything that has come into existence without human intervention, you step out of the prison of conceptualized thinking and, to some extent, participate in the state of connectedness with Being in which everything natural still exists.*²

Samevatting

Soos wat meer publikasies in die Sosiale en Menswetenskappe geproduseer word mbt 'n verskeidenheid van temas tussen mens en omgewing na die industriële era, hoe kompleks raak dit om huidige, vroeg-21e eeuse, omgewingsaangeleenthede te begryp sowel as te benader. Die kompleksiteit is en word aangemoedig deurdat tradisionele omgewingsgerigte denke, wat byvoorbeeld steeds inherent in optredes van hoofbesoedelaars aanwesig is, nie oornag deur nuwe besondere wetgewing of deur wetenskaplike en sogenaamde effektiewe reguleringsmeganismes verander kan word nie. Gevolglik harmonieer al hierdie aktiwiteite, met die doel om 'n meer aanvaarbare omgewing vir die mens te bewerkstellig, kwalik. Intendeel, dit kom eerder voor asof die stemme daarin vervat mekaar dikwels weerspreek, en dit reflekteer ook – vanweë kompleksiteit – in wetenskaplikes se debattering van byvoorbeeld omgewingskonsepte (vandaar die gebruik van die ‘envirobusion’-konsep om hierdie versameling van kompleksiteite rakende 'n benadering tot omgewings in die artikel te verwoord). Etlke omgewings pas binne hierdie komplekse ‘envirobusion’-tipe definisie. In die artikel word 'n begrip van hierdie definisie bespreek asook hoe dit veral in die Merafong-omgewing (Carletonville-gebied in die Verre Wesrand) toepaslik kan wees as 'n voorbeeld van “envirobusion”.

1 From the famous sayings of Tao te Ching as Quoted by R Billington, *Living philosophy. An introduction to moral thought*, 3rd edition (Routledge, London, 2002), p. 256.

2 E Tolle, *Stillness speaks* (Hodder & Stoughton, USA, 2003), pp. 77-78.

Introduction

As more publications in the human and social sciences are produced on a variety of topics regarding the interactions between man and environment after the industrial age, and more particularly since the environmental movement from ca 1964 internationally,³ the more complex an understanding of ways to deal with present environmental scenarios becomes, for example in South Africa's western-like setting. It is complex in the sense that past environmental thoughts through laws, scientific and regulating approaches, as well as discussions and decision making from top to bottom level, do not "speak" to one another, or cannot be efficiently linked to one another. Because of this complexity one finds, amongst others, a wide variety of conceptual thinking related to the environment that, to laymen, appears to be similar to "envirobusion" rather than able to provide thinking towards finding a consolidated solution of how to address past abusive environmental issues as perceived in the 21st century.

Past actions by primary regulators, decision makers, capitalist exploiters, scientists and an ignorant public – of whom some are currently labelled as the injured because of environmental harm done to them in some way – cause strenuous complexities in how to marry present indisputable environmental acts and cooperation models, as developed by a democratic regulator, with past perceived irregularities. To enhance the complexity, the injurers and the injured think differently about ways to find solutions of remediation, compensation and future regulation because they conceptually interpret past environmental actions and possible irregularities differently, yet very similar to those accused of being man-centric in their environmental views. An understanding, within the conceptual thoughts of several disciplines, either does not yet provide a clear-cut, balanced and environmentally just perspective. This article deals with some of these concepts that cause an "envirobusion" status of "envirobusive" thinking, and how these concepts have featured in past actions, for example in the Merafong area, Gauteng, as a result of conceptual "envirobusive" attitudes. It is also argued that these past concepts, for example in the Merafong area, actually still abuse modern thought on the environment.

3 Compare R Capalbo, "Environment", as retrieved on 5 June 2008 in The issues, Chapter 2 on <http://webpage.pace.edu/cmalone/pc2004chapter2.html>, pp. 28-29; L Henkin et. al., *International law. Cases and materials*, Third Edition (Westgroup, Minnesota, 1993), pp. 1375-1377.

“Envirobusion” confusion?

The using of the newly combined concept “envirobusion” is a means to explain abuse in thinking through concepts related to and confusion with regard to environmental issues. In the environmental context, the concept “envirobusion” is defined to reflect the visibility of an excessive,⁴ vague and/or unjust misuse of past scientific knowledge, ideological thoughts, judicial thinking and basic ethics to act in such a way that the present environmental scenario of justice to humans and justice to the environment is still embedded in one-sided, man-centric confusion, exploitation and an attitude of taking advantage of the situation. Although this confusion can be picked up in international discussions and environmentally related events, “envirobusion” as an issue of confusion in this article will relate applicable thoughts and events to the South African environment.

The fact that the acceptance of several environmental laws in South Africa after 1994 cannot be properly applied by 2008 because of past bureaucratic ways of dealing with the environment that still prevail as a result can be added as one of several complexities related to “envirobusion”. Some of these complexities, as interpreted from an early 21st century perspective, will be dealt with in the sections to follow. Where required, examples from the controversial Wonderfontein Spruit Catchment area in the Merafong municipal area, Gauteng, will be provided to accentuate an “envirobusion” scenario.

Past and present environmental thoughts captured in concepts

Currently a wide variety of concepts and conceptual thinking regarding man and the environment exists within the thoughts of several disciplines and intellectuals. In many ways, these thoughts do not “speak” fluently to one another and/or cannot be linked efficiently to one another to form a consolidated platform of understanding of how to be of practical service to the local and even the broader international community. Some have a history⁵,

4 Compare L Buell, *The future of environmental criticism. Environmental crisis and literary imagination* (Blackwell, UK, ca 2005), p. 100.

5 Compare L Buell, *The future of environmental criticism. Environmental crisis and literary imagination*, p. 100 that refers to the intellectual thoughts of Charles Darwin, Aldo Leopold and some modern continental philosophy, p. 100.

whereas others are younger than a decade. In the following section, the thinking within a few schools of thought is explored.

In a maze of concepts and conceptual thinking

Concepts and patterns related to environmental fairness, justness and equity, for example, are being studied across a wide range of disciplines. These studies were mostly creations from after the mid 20th century when communities worldwide became more aware of and sensitive about the impact of man on the environment after the industrial age.⁶ These concepts do not necessarily “speak” to one another or form a mutually consolidated understanding of thinking regarding “environmental fairness”.

In 1998, Downey noted that a concept such as “environmental justice” has proven to be quite difficult because of a lack of consistency in the definition. He found that researchers were drawing different conclusions from similar findings. In essence, the use of the same concept to, for example, describe different models, restricts scientific progress and some consensus is required.⁷ Downey’s concern can be stretched to other concepts in the environmental sphere as well.

Disciplines that deal with the environment include the legal, natural, human, social and economic sciences. All of them deal with the concepts discussed below, and therefore the need for some consensus or consolidation can only be emphasised, as Ringuist did in 2003:⁸

...we will have no standards with which to judge either the adequacy or the effectiveness of government efforts to ensure environmental equity until we agree what constitutes discrimination and equity with regard to environmental protection...

Ecology in transformation

Interestingly, Billington has pointed out that the use of the word *ecology* has changed in the past half-century. In the early fifties, dictionaries defined

6 J McNeill, *Something new under the sun. An environmental history of the twentieth century* (Penguin Books, England, 2001), pp. 28; 58-61; 116; 159-161; 314-316; 318; 320.

7 Compare Downey (1998) as quoted by RG Burns and MJ Lynch, *Environmental crime, a sourcebook* (LFB Scholarly Publishing LLC, New York, 2004), pp. 22-23.

8 Compare Ringuist (2003, p. 270) as quoted by RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, p. 23.

it as “the scientific study of animal behaviour”. After two decades, its basic meaning from dictionaries expanded to include human behaviour as well to read as follows (only the word “living” was added in later editions):⁹

Ecology is the science of relationships between [living] organisms and their environment – also called biometrics

In dictionaries of the early 21st century, the inclusion of plant behaviour became part of the definition, as well as an explicit reference to the interrelationship between animals, plants and humans. Perhaps the only significance that can be drawn from this basic observation of a change in definitions through time is the expansion of the meaning in which the interconnectedness of living systems is acknowledged.¹⁰ Its narrow definition before the mid-seventies also reflects man’s narrow-minded thinking about and grading of living organisms in the environment.

Experts that have addressed ecological issues have approached a relation to ecology in mainly three different ways of understanding. The anthropocentric understanding is related to especially past generations in which moral considerations only extended to human needs, irrespective of the harm it may cause to the environment. Ironically, the possible harm to human health never crossed the mind of those following this way of thought. A second way of understanding is that of sentient thinking (the so-called deep ecology thinkers who are sensitive and emphatic), which suggests greater humility by humans regarding their environment or habitat. A third group, the ecologist or land ethic thinkers, expose more direct moral considerations in their ways of thinking about the environment.¹¹

Environmental ethics and philosophies

A lack of a proper discussion regarding ethics and the environment exists in most disciplines.¹² Philosophers are of the opinion that the sciences were

9 Compare Grolier, *New book of Knowledge Dictionary*, vol 1 (Inforonics, Massachusetts, 1981), p. 413; JM Hawkins, *The Oxford paperback dictionary*, 3rd Edition (Oxford University Press, 1989), p. 255; Collins, *Collins English dictionary* (HarperCollins, Glasgow, 2004), p. 496.

10 Compare R Billington, *Living philosophy. An introduction to moral thought*, p. 255.

11 R Billington, *Living philosophy. An introduction to moral thought*, pp. 257-260; D Pepper, *Eco-socialism, from deep ecology to social justice* (Routledge, London, 1993).

12 Compare E Conradie, *Rus vir die aarde* (Kaaipstad, Lux Verbi, 1995), pp. 61-65.

the master creators of ethics regarding the environment almost up to the 21st century:¹³

Ethics and morality are typically human interventions or devices that could not be derived directly from nature but had to be fought for and protected in the face of natural evolution.

On the other hand, more recent social discourses on the environment suggest that “no conceptual issue, such as the knowledge of nature or what is acceptable ‘risk’, can be divorced from its concomitant dimensions of political and institutional legitimations”.¹⁴ Otherwise, it has been stated that the main cause of man’s present ecological predicament results from a Christian ethical conviction that man has been granted “dominion” over the earth and may therefore exploit and use nature to his own ends. This contribution first tries to make the accusation that “Christianity is the enemy of the environment”.¹⁵ Secondly, instead of limiting the scope of ethics only to “matters of mankind”, it argues for a wider scope of the subject matter of ethics in alluding to a “moral dimension of nature”. The case for an eco-ethic that will accommodate and respect the identity and purpose of nature, as well as the interests and purpose of human life, is stated.¹⁶

During the Renaissance and the Enlightenment, the environmental emphasis still was on the supremacy of the human mind over the world of matter. For example, in the Cartesian¹⁷ approach to the environment, “persons” are accentuated as morally considerate and the “rest” or “things” not as ethically accountable.¹⁸ Science and technology are edified as instruments of power in the hand of man so that progress can take place, and through plans aimed at growth, the environment is used and exploited for the sake of the interests of

13 Compare J Keulartz, *Struggle for nature: a critique of radical ecology* [translated by Rob Kuitenbrouwer], (Routledge, London, 1998).

14 Also compare LM Benton & JR Short, Environmental discourse and practice, pp. 147-148; R Billington, Living philosophy. An introduction to moral thought, pp. 261-262.

15 Compare L White, “The historical roots of our ecological crisis”, G De Bell, ed., *The environmental handbook*, (New York, Ballantine, 1970), pp. 18-26; D Wall, *Green history* (Routledge, New York, 1994), p. 76.

16 Compare T Roszak, *Making of a counter culture* (New York, Faber, 1968); T. Roszak, *Persoon en planeet* (Amsterdam, Meulenhoff, 1980); R Attfield, *The ethics of environmental concern* (Oxford, Blackwell, 1983); R Attfield, *Environmental philosophy* (Avebury, Aldershot, 1994); JA Nash, *Loving nature. Ecological integrity and Christian responsibility* (Nashville & Washington, Abingdon Press, 1991); PGW du Plessis, Manuscript on “Eco-ethics, the Christian and the future”, Potchefstroom University for CHE (currently North-West University), 27 May 1998; L Wilkinson, “How Christian is the Green Agenda?”, *Christianity Today*, 1993, pp. 17-20.

17 Cartesianism refers to the 17th-century philosophical thinking of the famous French philosopher and mathematician, Rene Descartes. He was regarded as one of the key thinkers of the scientific revolution. See <http://en.wikipedia.org/wiki/Descartes> as retrieved on 4 June 2008.

18 Compare V Plumwood, *Environmental culture. The ecological crisis of reason* (Routledge, New York, 2002), pp. 143-144.

man and his society. For positivists, the growth of man’s rational insights in natural processes tends to promote growth of his power over nature. Benton and Short refer to the capitalist approach as nature, as “object” becoming a conceptual container.¹⁹

Even governmental regulators followed a policy analysis in which the environmental protection in question is assessed as whether it can be regarded as either more or less valuable than economic development.²⁰ This method or approach is referred to as part of conservation ethics because of the value of the environment in terms of its utility or usefulness (also known as shallow ecology and not deep ecology).

In the last three to four decades of the 20th century, a nature-centred environmental ethic was accentuated more.²¹ Since the first Earth Day in 1970,²² several thoughts on the negative side of a man-centred environmental ethic with its egoism and paternalism have been pointed out.²³ Progress is slowly but surely being overhauled by regression because of pollution of the environment and the destruction of the natural balance between man and nature.²⁴ A strategy for growth and exploitation has been replaced by a strategy for survival and greening. The late sixties have sought relationship, and not hostility, between man and nature,²⁵ but certainly this trend is still escaping the South African policy and money makers.

Nevertheless, within the search for the previously mentioned healthy relationship lie several theories and ideologies of thought. Solutions suggested vary from socialism²⁶ (thus root causes that require revolutionary change, the need for a state that acts and class action) to a focus towards creating dialogical interspecies ethics. In the latter, the environment is reflecting a value and broader respect than only in terms of economically “cooptable” value

19 Compare B Goudswaard, *Capitalism and progress* (Grand Rapids, Eerdmans, 1979), p. 50; LM Benton and JR Short, *Environmental discourse and practice*, p. 147.

20 A Gutmann and D Thompson (Eds), *Ethics and politics. Cases and comments*, Fourth Edition (Australia, Thomson Wadsworth, 2006), pp. 261-263.

21 M Mesarovic & E Pestel, *Mankind at the turning point* (New York, Dutton, 1974).

22 Compare L White, “The historical roots of our ecological crisis”; A Leopold, “The land ethic”, *A sand county almanac* (Oxford University Press, UK, 1968), pp. 201-226; L Buell, The future of environmental criticism. Environmental crisis and literary imagination, pp. 13-133.

23 Compare T Roszak, *Making of a counter culture* (New York, Faber, 1968); R Carson, *Silent spring* (New York, Penguin, 1962); M Machovec, *Die Rückkehr zur Weisheit*, (Stuttgart, Kreuz Verlag, 1988).

24 L White, “The historical roots of our ecological crisis”, G de Bell (ed.), *The environmental handbook*, pp. 18-26; A Leopold, “The land ethic”, *A sand county almanac* (Oxford University Press, UK, 1968), pp. 201-226; EF Schumacher, *Small is beautiful* (New York, Harper, 1978).

25 A Leopold, “The land ethic”, *A sand county almanac* (Oxford University Press, UK, 1968), p. 223.

26 Compare D Pepper, *Eco-socialism, from deep ecology to social justice* (Routledge, London, 1993).

concepts. This view opposes moral dualism as a philosophy that minimises interspecies communication.²⁷

Although only some distinctive theoretical thinking on ethics and the environment in the past and the present has been provided in this discussion, a consolidated effort in which all disciplines speak the same language and come to grips with the basic meaning of the concept, still falls short. Plumwood adds that ethical thinking in the early 21st century:²⁸

...resist distorting centric constructions, helping to counter the influence of the oppressive ideologies of domination and self-imposition that have formed our conceptions of both the other and ourselves...

The fact is that destruction over decades and centuries cannot change engraved conceptions in a short enough time to change distorted centric constructions and views regarding harm done to specifically the environment and then also man's position or/and activity in a localised environment. Destruction in the West Rand due to mining activity is a typical example.

Environmental crime

Research on environmental crime appears to be very limited and can be regarded as a field that gained more interest from scientists in the past two decades.²⁹ Wolf specifically explains the involvement of corporate companies in some form of crime (such as environmental crime) as follows:³⁰

Corporate criminology has largely been an academic Siberia of thought, mainly being a loose theoretical body of work with mostly descriptive empirical queries. This is due, in part, because unlike street crime, there is no national database that tracks all corporate crimes...Researching corporations and their crimes can prove to be a difficult task...

Environmental crimes are perceived as having lasting physical and often violent consequences. In the media, some academics frequently present crimes that harm the environment as random accidents or disasters. Environmental crimes to which corporations are linked are seen as a function of opportunity,

27 V Plumwood, Environmental culture. The ecological crisis of reason, pp. 167-194.

28 V Plumwood, Environmental culture. The ecological crisis of reason, p. 194.

29 RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, pp.1-324.

30 BC Wolf, "Environmental crime and justice: The organizational composition or corporate noncompliance" PhD., University of Oregon, 2005, p. 61.

motive and choice.³¹ A key aspect of environmental crime on which mutual agreement apparently exists is that it boils down to violence because it is also associated with a physical confrontation that may lead to death.³² For example, when corporations chemically pollute water in an environment, they are presenting a community with a violent and physical toxic threat that can be a harmful threat to the health and well-being of the community. From a legal perspective, by definition this crime simply means that the law is violated.³³

In environmental crime, the scope of thinking about it may cause disagreements concerning the scope chosen. Furthermore, sufficient data is required to know or to reveal something about an event or behaviour.³⁴ Burns refers to research by Lynch, Stretesky and McGurrin in 2002, in which they point out that in a study of toxic crimes and environmental injustices it always appears evident that claims fail because of a lack of data as evidence. Therefore, research on corporate crime has been neglected for many years because of a lack of data.³⁵ The tackling of environmental crime issues related to violence and human health consequences is mainly an effort of the 21st century.³⁶ Wolf comments as follows in this regard:³⁷

[There is a] *need for...environmental justice researchers to focus on the role of organizations and profit seeking enterprises play in perpetrating various forms of environmental victimizations. Until these types of crimes are studied more thoroughly and punished more appropriately, these types of crimes are likely to persist and remain unnoticed...*

Environmental pollution as a crime scenario can take years to emerge because of the length of time involved. For instance, there is a link between the outcome (e.g. cancer) and invisible pollutants.³⁸ One may very well add that, because of reports on pollution labelled as “secret” or “confidential” in bureaucratic circles and which are not accessible to the public eye that

31 BC Wolf, “Environmental crime and justice:...”, pp. 129-138.

32 A definition by Clifford and Edwards, 1998, as quoted by Burns & Lynch, *Environmental crime, a sourcebook*, pp. 17.,20

33 JS Dryzek and D Schlosberg, *Debating the earth. The environmental politics reader*, Second edition (Oxford University Press, 2005), pp. 1-658.

34 Compare RG Burns and MJ Lynch, *Environmental crime. A source book* (LFB Scholarly Publishing, New York, 2004), pp. 1-24.

35 RG Burns and MJ Lynch, *Environmental crime. A source book*, pp. 2-3.

36 Compare Rebovich, 2002 as quoted in RG Burns & MJ Lynch, *Environmental crime, a sourcebook*, pp. 2-3.

37 BC Wolf, “Environmental crime and justice...”, p. 136.

38 Lynch & Stretesky (2001) as in RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, p. 2.

concerns it directly, it indeed can take years to emerge.³⁹ Usually, ordinary people are not exposed to and are unaware of crime-related actions.

In the past, pollution and the actions of pollutants were recognised as part of having technical problems instead of dealing with a possible environmental crime.⁴⁰ However, to pinpoint exactly what constitutes environmental crime, Burns and Lynch view it as a new practice and challenging, because not all harms to the environment are recognised as crimes from a legal perspective (see also the discussion on legal perspectives further on). Identification of incidents, together with media coverage and continued environmentalist efforts, plays a decisive role in the defining of a criminalisation of harms against ecology.⁴¹ In many ways, the interpretation or assessment of these criminalities causes constraints between disciplines, some environmentally aware members of the public and the law in practice.

Criminologists regard contributions of industries to pollution and poisoning of the environment as the most common form of corporate violence. In 2002, Rosoff, Pontell and Tillman (as quoted in Burns & Lynch) suggested that much of the poisoned water comes not from illegal hauling of dangerous waste products but from criminal negligence of industries. In the process, governments as major polluters are not to be ignored, because they sometimes cooperate with major industrial corporations.⁴²

The following components are involved in defining environmental crime:

- Environmental legislation.
- Enforcement.
- Legitimate disposal alternatives.

The example of the WRC's past will point out some detail in this regard.

Environmental (and distributive) Justice

The concept of environmental justice has developed primarily through the efforts of civil rights activists since 1982 in the United States of America after

³⁹ See the discussion on the WRC further on.

⁴⁰ Compare the voices of Lowe, Ward, Seymour and Clark, who have changed the scenario of thinking along these lines in 1996, as in RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, pp. 17, 20.

⁴¹ RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, pp. 15-17.

⁴² See Simon (2000) and Caldicott (1992) as quoted in RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, pp. 18-19.

two decades of studying impacts in certain research programmes. Since this formal year of introduction of the concept of environmental justice, a growing number of countries around the world have begun to investigate the economic, social and environmental impact of various developments and policies on disadvantaged and marginalised groups in society. Many studies focussed on the relationships between the spatial distribution of environmental amenities or unpleasantness and the socio-demographic attributes of communities affected. Specifically defined, environmental justice initially referred to the:⁴³

...fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation and enforcement of environmental laws. It is also commonly referred to as the equitable distribution of both negative and positive impacts across racial, ethnic and income groups, with the environment defined to incorporate ecological, economic and social effects...

Fair treatment involves that all income groups should not bear a disproportionate share of the negative environmental impacts of government actions,⁴⁴ because all indirectly agreed to change the environment afterwards.

Criminologists who study environmental crime define environmental crime from a legal standpoint as involving environmentally based acts that fail to meet statutory requirements. These environmental harms are sometimes addressed from a legal point of view and sometimes by a social and environmental justice approach. In criminology studies, environmental justice issues were incorporated as a subcategory of social justice by the nineties. Amongst others, these studies dominantly focus on the relationship between racial and ethnic minorities and environmental hazards, which is sometimes referred to as “distributive justice” or “environmental racism”.⁴⁵ As adapted from a USA perspective, environmental racism in some environmental spaces in the South African context can be defined as follows:⁴⁶

...the intentional siting of hazardous waste sites, landfills, incinerators, and polluting industries in communities inhabited mainly by [Africans], Asians,

43 Compare Institute of Transport Studies, Working Paper ITS-WP-03-04, R Alsnih and PR Stopher, “Environmental justice applications in transport: The international perspective” (University of Sydney, Australia, October 2002), pp. 1-4.

44 See R Bass (1998) as quoted in Institute of Transport Studies, Working Paper ITS-WP-03-04, R Alsnih and PR Stopher, “Environmental justice applications in transport: The international perspective” (University of Sydney, Australia, October 2002), pp. 1-4.

45 RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, p. 21.

46 Compare I Weintraub, “Fighting environmental racism: A selected annotated bibliography”, *Electronic Green Journal*, 1, June 1994, p. 1 as retrieved on 5 June 2008 on <http://www.mapcruzin.com/EI/ejgc.html>.

migrant farm workers, [mine workers] and the working poor. Minorities are particularly vulnerable because they are perceived as weak and passive citizens who will not fight back against the poisoning of their neighbourhoods in fear that it may jeopardize jobs and economic survival...

Some key aspects from the definition of environmental justice that studies have pointed out are that environmental justice means that i) environmental hazards should be equally distributed across society and that ii) no one should be forced to suffer the adverse effects of environmental hazards.⁴⁷ The exclusion of the views of minorities from policy formulation, and the under-representation of minorities in environmental regulatory structures are regarded as far from being a healthy way of hoping to find environmental solutions in a healthy way within an environmental justice process.⁴⁸

Evidence of unequally distributed pollutants in the United States apparently dates back to 1971 when research indicated that minority communities were disproportionately exposed to hazardous risks.⁴⁹ In South Africa, some examples of hazardous pollution date back to the mid fifties.⁵⁰ It is a certainty that if more environmentally related historical studies are conducted to the bone in certain areas, the date may even shift to previous decades.

In the USA, some principles for environmental justice were adopted in 1991 in a document developed during the First National People of Colour environmental Leadership Summit in Washington DC. Aspects of the preamble are:

We...gathered...to begin to build a national and international movement of all peoples of color [sic] to fight the destruction and taking of our lands and communities, do hereby re-establish our spiritual interdependence to the sacredness of our Mother Earth; to respect and celebrate each of our cultures, languages and beliefs about the natural world and our roles in healing ourselves; to insure environmental justice; to promote economic alternatives which would contribute to the development of environmentally safe livelihoods...

47 RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, p. 22.

48 Compare ES van Eeden, "An historical assessment of NGO efficiency in progressing towards a sustainable environmental heritage focus, with as case study the Wonderfontein Spruit catchment, Gauteng", *New Contree*, 53, May 2007, pp. 55-80; RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, pp. 22-23.

49 See US Council on Environmental Equity, 1971, as quoted in RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, pp. 20-21; C Sabel, A Fung & B Karkkainen, "Beyond backyard environmentalism: How communities are quietly refashioning environmental regulation", JS Dryzek & D Schlosberg, *Debating the earth. The environmental politics reader*, 2nd edition (Oxford University Press, 2005), pp. 116-133.

50 Compare the discussion later on the Wonderfontein spruit Catchment in the Merafong area, Gauteng, South Africa.

Some principles of environmental justice that are spelled out in the above-mentioned document can be combined to define or conceptualise the community’s idea of environmental justice. They are, amongst others, the right to be free from ecological destruction; a demand that public policy be based on mutual respect and justice for all people, free from any discrimination and bias; demanding a right to ethical, balanced and responsible use of land; the importance of universal protection from threats like extractions, productions and disposals that threaten fundamental rights such as clean land, water, air and food; a demand for the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation; an affirmation of the right of all workers to a safe and healthy work environment without being forced to choose between that and an unsafe livelihood and unemployment; and the destructive operations of multinational corporations. Environmental justice also considers governmental acts of environmental injustice as a violation of international law and the Universal Declaration on Human Rights.⁵¹

Only companies that directly rely on the feet and the money of consumers tend to make themselves aware of the ethical beliefs of consumers. Others who may regard themselves as huge income creators and employers of work, such as the gold mines in South Africa, do not necessarily have any clear idea of consumer or community ethics regarding the environment.⁵² Another interesting aspect regarding the history and definition of environmental justice is that the dominant accent in current theory is on injustices done to humans. Although the environment features as a welcome Cinderella to accentuate possible injustices done, the effects on humans are the central focus.

Rights-based approach and justice

This approach transformed from promoting just economic and social international development during the Second World War years to a basic goal recently, namely the achievement of human rights as a means to promote a more effective, sustainable and just development in the fields of economic, social and cultural rights that cover necessities such as food, jobs, health, care and an adequate standard of living to support life. If defined, the rights-based

51 LM Benton & JR Short, *Environmental discourse and practice*, pp. 222, 232-233.

52 Compare T Newman & DS Shaw, *The ethical consumer* (Sage publications, London, 2005), pp. 230-232.

approach can look like this:⁵³

...some independent standard with perceived legitimacy or fairness to determine who is right. As a shorthand for such independent standards, we use the term rights. Some rights are formalized in law or contract. Other rights are socially accepted standards of behaviour, such as reciprocity, precedent, equality and seniority...

Experts say that the vast majority of instruments that define rights are non-legislative, but designed with the means to, amongst others, use courts to claim entitlements and to achieve justice and equality.⁵⁴ In many ways, the rights-based approach can be associated with environmental justice concepts in which justice, fairness and equality regarding humans are promoted.

Post-modern environmental ethics

The post-modern environmental approach of the 1990s claims to look at nature from a critical, social and cultural perspective, embedded in social rather than scientific theory. In the process, this approach has introduced critiques about ideology, discourse, representation, knowledge and power. Similarly, the role of language and science in the creation of human environment is challenged. Considering nature as a social construction allows the human and social sciences to examine forms of control such as the economic, the social and the political. Amongst others, the belief that science in general is value neutral and that it cannot be held responsible for the environmental problems it creates, is also under scrutiny in post-modern environmental thinking. The value-neutral aspect has implications for environmental groups, like activists, that rely on scientific rigour and assessment to convince others of the need for reform.⁵⁵ In literature of a post-modern nature, it is also argued that science has become ecologically irrational, losing a commitment to sustainability and interdependence. In the post-modern environmental discourse, two schools are distinguished, namely constructive and deconstructive post-modernism. Whereas constructivists opt for a critical analysis of cultural practices, paradigms and alternatives, deconstructivists eliminate the ingredients

53 L Ewert, Draft on "Rights-based approach to international development", Director Peace and Conflict Studies, Conrad Grebel University College, University of Waterloo as retrieved on 5 June 2008 on <http://www.Scirus.com>, pp. 6, 8-9.

54 See J Theis, "Promoting rights-based approaches: Experiences and ideas from Asia and the Pacific"(2004) as in L Ewert, Draft on "Rights-based approach to international development", as retrieved on 5 June 2008 on <http://www.Scirus.com>, p. 15.

55 LM Benton & JR Short, *Environmental discourse and practice*, pp. 148-149.

necessary for constructing a new environmental meta-discourse, such as God, self, purpose and meaning.⁵⁶

Corporate ethics and policy making

Internationally, the concept *corporate social responsibility* (CSR) has been a topic in organisational studies since the 1930s. It even is possible to find traces of it in the Industrial Revolution times.⁵⁷ Perhaps the most common utilitarian framework to follow for corporate companies and governments in especially the past – but also the present – is to decide how one should choose among competing goals of policy. Some version of policy analysis, cost-benefit analysis, cost-effective analysis and risk-benefit analysis is then required. The assumed “moral framework” implies that i) the outcomes or values of policies can be compared by a common measure of expected utility (e.g. happiness, satisfaction and welfare) and ii) the best policies or set of policies can be compared by a common measure of expected utility. With this approach, it is said, conflicts can be resolved in an all-inclusive democratic way. Critics attacked both these assumptions on the basis that utility goods still overrule ultimate values.⁵⁸ The obligations of organisations/corporations to shareholders also impede their abilities to act in an ethically appropriate way. In the past, profit-making organisations with an indirect obligation to the community (for example to create jobs, e.g. a mining company) but that did not provide specific products to the community that had to be bought (e.g. Kentucky Fried Chicken) did not think that they had legitimate interests in solving social problems, as it was the domain of government. Corporations/organisations may fund a “meritorious” community project that is visible and affects the overall attractiveness of the location of a corporation, while ignoring invisible issues of water and air pollution that have a much wider and potentially long-term impact.⁵⁹

56 LM Benton & JR Short, *Environmental discourse and practice*, p. 149.

57 M Seeger & SJ Hipfel, “Legal versus ethical arguments. Contexts for corporate social responsibility”, S May, G Cheney & J Roper, *The debate over corporate social responsibility* (Oxford University Press, New York, 2007), p. 156.

58 Compare A Gutmann and D Thompson, *Ethics and politics* (Thomson & Wadsworth, UK, 2006), pp. 261-263.

59 M Seeger & SJ Hipfel, “Legal versus Ethical arguments. Contexts for Corporate Social responsibility”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, p. 156-157.

Hydrosolidarity

Amongst others, hydrosolidarity⁶⁰ (since its conception in 1996 by Malin Falkenmark, a Swedish hydrologist), is the notion that water-related research should include considerations of understanding environmental ethics, environmental crime and equity. In this approach, the intention is to create possibilities to campaign against, understand and improve the management of environmental injustices.⁶¹ Hydrosolidarity added social justice and human rights to the already long list of technical variables that influence the provision and management of water.⁶² For the purpose of this discussion, inclusive thinking about the environment as the complete concept of ecology should also be applied in environmental research.

The emphasis should then reflect a concern for preserving the environment for the sake of the environment, and not merely focus mainly on improving its quality for the sake of human living only.

Ethics⁶³ and laws within legal science's thinking on environmental issues

Philosophers and legal theorists have long debated the relationships among ethics, morality and the law, while managers apparently often struggle to find the pragmatic bond between legal dictates and moral principles.⁶⁴ Amidst all these debates and struggles, environmental law appeared on the horizon and is still regarded as relatively new. It is also regarded as complex because it usually involves a number of laws in which defined environmental violations or injustices are issues to be dealt with. In addition to these complexities, legal science also has to deal with these new laws accentuating human rights and social justness amidst past environmental criminalities affecting people in the present. Even though legal science may still regard environmental issues

60 AK Gerlak, RG Varady & AC Haverland, "Hydrosolidarity and international water conflict", Draft paper submitted to the *International Negotiation*, April 2008.

61 Compare A Turton, HJ Hattingh, GA Maree, DJ Roux, M Claassen & WF Strydom (eds.), *Governance as a triadialogue: Government-Society-Science in transition* (Berlin, Springer Verlag, 2007).

62 AK Gerlak, RG Varady & AC Haverland, "Hydrosolidarity and international water conflict", Draft paper submitted to the *International Negotiation*, April 2008.

63 Ethics are defined as related directly or indirectly to the conscience, moral code, morality, moral philosophy, moral values, principles, rules of conduct and standards. Compare Collins, *Thesaurus*, p. 66.

64 M. Seeger & SJ Hipfel, "Legal versus Ethical arguments. Contexts for Corporate Social responsibility", S May, G Cheney & J Roper, *The debate over corporate social responsibility*, p. 157.

and differences between groups as political of nature,⁶⁵ a rethinking on how to interpret past environmental malpractices, which still relate to present circumstances under newly developed laws, is required.

Law, morality and ethics

The law, morality and ethics initially appear to be the same or at least closely related concepts because all of them embody codes of conduct. By looking more closely, Seeger & Hipfel have identified the differences between these concepts in significant ways:⁶⁶

Morality, in general, is the larger framework of values and beliefs one lives by, while ethics are general provisions, norms and standards for judging good versus bad, right versus wrong, and desirable versus undesirable...ethics are used to assess whether actions are moral...Law both mandates and prohibits a range of conduct but arguably these are minimal standards designed largely to maintain basic social order...law is a creature of politics and bears only a passing or casual relationship to morality and ethics...

In essence, laws are designed to complement ethical ideals and legal foci in the Constitution that, amongst others, are mainly developed and applied to address societal concerns and protect the public from harm. Therefore, in practice, it cannot simply be accepted that ethics and the law can represent only distinct ways of arguments with eventually different assumptions and arguments and rules. In environmental issues such as injustice, thinking among the various academic realms of discourse should eventually harmonise to complement one another with regard to the way forward in social responsibility.⁶⁷

However, legislation offers little without consistent monitoring and enforcement practices by those assigned to do it. Therefore, it can be argued that weak, un-enforced environmental legislation contributes to environmental pollution and the wider consequences it may have as a result.⁶⁸

In the legal sciences, most thinking regarding ethics and evidence that eventually leads to court cases is built on the principles of a policy application

65 Compare Seminar, Public International Law Forum & the Political Sciences, Prof. W Scholtz (Faculty of Law) on Environmental justice, Vaal Triangle Campus 28 May 2008.

66 M Seeger & SJ Hipfel, “Legal versus Ethical arguments. Contexts for Corporate Social responsibility”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, pp. 157-158.

67 Compare M Seeger & SJ Hipfel, “Legal versus Ethical arguments. Contexts for Corporate Social responsibility”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, pp. 158-159.

68 Compare RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, pp. 43, 66, 105.

of the law at a given time.⁶⁹ This is heavily supported or backed by specific acts of the time that can and should be linked to, and liaised with, the Constitution it serves. The international scene is heavily burdened with environmental examples that indicate an absence of proper ethics of understanding in the application of environmental regulation based on the widely defined concept of environmental justice.⁷⁰ In many instances, a certain political and/or economic ideology dominates thinking about the environment or thinking about taking polluters to court. Apart from this, constraints like limited resources, unclear legislation or a lack of a comprehensive strategy also feature prominently as major stumbling blocks.⁷¹

Environmental law and ethics

In 2007, Seeger and Hipfel wrote:⁷²

The law, although bearing some general relationship to larger ethical principles, is comparatively narrow in its dictates and does not account for a broad range of ethical positions or moral obligations...

Three relationships that accrued from legal codes and more ethical traditions between ethics and the law are i) legal positivism, ii) natural theory and iii) the social responsibility model. In a legal positivist view, the law is a system of clearly defined rules established by a sovereign. In natural theory, law should correspond with more general ethical and moral frameworks. The social responsibility model obtains elements from both the legal positivist and natural theory models. In essence, this view accentuates that law is based on current underlying moral principles that dictate how it is applied and on a collective willingness on the part of citizens to be bound by the law.⁷³

Another interesting facet and its application in the law of contract – which resulted into unjustified enrichment in South Africa – is the doctrine of duress

69 Compare DR Hampton, “Defining science for the law of evidence: A comprehensive examination of the philosophy and law pertaining to scientific testimony in Canadian courts” (PhD. University of Alberta, Canada, 2003), pp. 1-276; DL Eldridge, “The making of a courtroom: Landlord-tenant trials in Philadelphia’s municipal court” (PhD. University of Pennsylvania, Pennsylvania, 2001), pp. 1-25 short version.

70 Compare NA Casner, “Acid water: a history of coal mine pollution in Western Pennsylvania, 1880-1950” (PhD., Carnegie Mellon University, Pennsylvania, 1994), pp. 1-297.

71 RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, pp. 105-106.

See M Seeger & SJ Hipfel, “Legal versus ethical arguments...”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, p. 155; J Peterson, “Status and trends associated with indigenous communities inland water and the development of relevant international law” (PhD., University of Waikato, USA, 2008).

73 M Seeger & SJ Hipfel, “Legal versus ethical arguments...”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, pp. 157-159.

or *condictio endebti*. The duress doctrine finds its juridical foundation in the principle of good faith. So one will find situations where non-contractual performances have occurred under duress or agreements of good faith.⁷⁴ In the Wonderfontein Spruit Catchment (WSC) area, for example, as briefly discussed later in terms of environmental injustices, the doctrine of duress also very well applied between the gold mines and the government. For example, two research and regulating bodies, which operated respectively through government and mining authorities from the mid sixties, can be mentioned. They are namely the State Coordinating Technical Committee (SCTC) and the Far West Rand Dolomitic Water Association (FWRDWA). Ironically, three decades later, this remark is made:⁷⁵

...many organisations will fail to take environmentally friendly actions unless required by law to do so...

Environmental laws usually reflect this tension, and in general, regulatory schemes are established to minimize the activities of environmental destroyers, but they can never completely prohibit environmental harms. The quest for organisations to be socially more responsible is regarded as the modern trend in the past decade or so:⁷⁶

...A social responsibility approach to the relationship between law and ethics complements a corporate social responsiveness approach to questions of organizational ethics and morality. Social responsibility points to the larger underlying moral context of the law and acknowledges that the law is dynamic in its development, interpretation, and application. Nevertheless, while the law evolves to address changing societal conditions within a political framework, this is often a very slow and incremental process...

Social responsiveness, therefore, suggests that organisations should be sensitive to the larger norms, needs, values and morality of diverse stakeholders outside the limited context of the law.⁷⁷

74 GB Glover, “The doctrine of duress in the law of contract and unjustified enrichment in South Africa” (PhD., Rhodes University, Rhodes, 2004).

75 M Seeger & SJ Hipfel, “Legal versus ethical arguments...”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, p. 161.

76 M Seeger & SJ Hipfel, “Legal versus ethical arguments...”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, pp. 161-164.

77 M Seeger & SJ Hipfel, “Legal versus ethical arguments...”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, p. 164.

Common law and environment

This form of law (with its origins dating back to at least the 12th century and transformed slightly in time) refers to laws that developed through decisions of courts and similar tribunals regarding case-based reasoning rather than through legislative statutes. In common law legal systems, law is created and/or refined by judges after a case in order to be able to apply it in future cases. In practice, common law systems are perceived as more complicated than the basic ideal or process of creating law from nothing or at least from something. Ironically, common law cases in the past resorted under civil cases and not criminal cases. In a 21st century scenario, this distinction is highly debatable in environmental crime cases.⁷⁸

The fact that judicial opinion is regarded as the strength of a common law system makes it a significant contributor to robust commercial systems where actions may be lawful or unlawful. In the UK and the USA, this way of application of common law is still maintained successfully. In essence, this form of depth and predictability of common law should be given some thought in South Africa's form of jurisdiction regarding, amongst others, environmental justice.⁷⁹ The historical application of common law was devised as a means of compensating someone for wrongful acts known as torts,⁸⁰ including both intentional torts and torts caused by negligence, and as developing the body of law recognising and regulating contracts.⁸¹

In court cases and/or local government environmental questions in other countries, the application of common law as a solution measurement has been applied in the past. Amongst others, there is the history of acid water pollution at the coal mines in Pennsylvania between 1880 and 1950.⁸²

International law and environment

Traditionally, international law is regarded as a comprehensive law and a

78 Compare http://en.wikipedia.org/wiki/Common_Law as retrieved on 4 June 2008, pp. 1-14; M Murru, "Bhopal 20 years on: Globalization and corporate responsibility", *Health Policy and Development Journal*, 2(3), December 2004, pp. 249-254.

79 Compare http://en.wikipedia.org/wiki/Common_Law as retrieved on 4 June 2008, p. 6.

80 Tort is a civil wrong or injury arising out of an act of failure to act, independently of any contract, for which an action for damages may be brought. See Collins, *Collins English dictionary* (HarperCollins, Glasgow, 2004), p. 1722.

81 Compare http://en.wikipedia.org/wiki/Common_Law as retrieved on 4 June 2008, p. 6.

82 NA Casner, "Acid water: a history of coal mine pollution in Western Pennsylvania, 1880-1950", pp. 1-297.

many-sided legal system of the international community of states, principally governing relations among states - the basic units in the world political system for more than 3000 years. For more than half a century, however, international law also has increasingly dealt with other entities, including the individual’s human rights. However, up to the nineties international law did not deal directly with multinational corporations, conglomerates or other companies. It also did not address domestic matters that might be of international interest. In international law, one can find the basic concepts of any legal system – property and tort, injury and remedy, status and contract.⁸³

The international concern for the environment is particularly acute in the case of common areas such as the high seas, Antarctic seas, shared coastal areas, common water resources and outer space. International law developed rules of more general scope during the conference on the human environment held in Stockholm in 1972 and extensively expanded it during the Rio de Janeiro Earth Summit in 1992. Trans-border pollution is a major concern in dealing with international law concerning the environment.⁸⁴ In the process of dealing with various kinds of pollution, another complexity may arise, namely to what extent local environmental pollution may have secondary affects on neighbouring countries and the international community. For example, consider a scenario of crops produced in a radioactive, water-contaminated area and perhaps exported to foreign communities. These complexities are not yet well articulated conceptually in an international law focus on how this should be dealt with in the environment as far as the equity status between the injurer and the injured is concerned.

In many respects, two forms of equity⁸⁵ in environmental issues come to the fore, namely intragenerational equity and intergenerational equity. An “intra” focus is a focus on equity inside or within a state/country, whereas an “inter” focus is defined as a focus on aspects of environmental equity interdependence between or among cultures of human generations.

83 L Henkin et al., *International law. Cases and materials*, Third Edition, pp. xvii-xviii.

84 L Henkin et al., *International law. Cases and materials*, Third Edition, pp. 1375-1377.

85 In England (and all the English colonies like the United States of America) courts of ‘equity’ existed separately from courts of ‘law’ until 1873, after which they merged. In courts of ‘equity’, injunctive relief could be issued as well as recognized trusts of property. Compare http://en.wikipedia.org/wiki/Common_Law as retrieved on 4 June 2008, pp. 1-14.

The law and environmental acts, concepts, voices and views

Present-day legal experts, injurers and the injured think differently about ways of finding solutions for environmental remediation, compensation and future regulation because they have different interpretations of acts, concepts and past voices of concern.

For South Africans, the democratic vision after 1994 endorsed basic ethical values as spelled out by the Constitution. In other developed democracies internationally, since the seventies, the concern has always been that environmentalism itself, whatever its merits, may harbour a threat to democratic institutions. The openness for more knowledge exchange and discussions as required in democratic structures versus the closed, confidential approach in governmental structures is amongst the issues that led to the concern. Time proved this concern wrong; therefore, environmentalists in South Africa surely may hope that the country follows the same path as others did internationally. In fact, Paehlke has pointed out that environmentalism, in practice, has widely and constantly led to – or at least sought an – expansion of democratic opportunities and an opening of administrative decision making to public participation.⁸⁶

South Africa's environmental acts, as revised and adopted from the mid nineties, reflect these basic ethical values and, based on them, it is possible to identify corporate crime in the past. However, the irony is that these "crimes" are disputable if argued from a legal framework (see the discussion further on).

From a historical perspective, the South African government's awareness of and involvement in structured and formal environmental regulation is reasonably young. An advantage to a latecomer is that one could learn from others and improve on the efforts of others. However, the proof of efficient water regulation does not lie in a spotless model of environmental laws and regulations but in the practical implementation of regulations.⁸⁷ In turn, efficient regulation by Government is influenced by – and relies on – a complex scenario of aspects, issues and events, for example in water management.⁸⁸

86 Compare R Paehlke, "Democracy and environmentalism: Opening a door to the administrative state", JS Dryzek & D Schlosberg, *Debating the earth. The environmental politics reader*, 2nd edition, pp. 163-1175.

87 See PS Juuti, S Katho, HR Mäki et al., *Governance in water sector – comparing development in Kenya, Nepal, South Africa and Finland* (Juvenes Print, Tampere, 2007), pp. 187-191.

88 Compare A Turton, HJ Hattingh, GA Maree et al., *Governance as a dialogue: Government – Society-Science in transition* (Berlin, Springer Verlag, 2007); RA Adler, M Claassen, L Godfrey, A Turton, "Water, mining and waste: an historical and economic perspective on conflict management in South Africa", *The Economics of Peace and Security Journal*, 2(2), 2007, pp. 33-41.

From a post-modern, footsole level, ethical environmental view, some non-negotiable requirements are pleaded for by a more informed public, namely that:

- the truth obtained from scientific knowledge should be accessible to ensure a multi-diverse approach or solution to a problem;
- what turned out to be inadequacies of the past be corrected in the present (e.g. compensation, remediation and proper regulation) and not some time in the future.
- past inadequacies that have deprived people of reasonable wealth and health should be properly addressed from a 21st century ideological perspective.

The Merafong are a in South Africa as a case study of past environmental practices abusing present thought

In South Africa, environmental destruction in the far West Rand (for example the Wonderfontein Spruit Catchment in Merafong) is in many ways unique, and currently it is probably the area in South Africa regarded to be the most written about, environmentally in the most destructive state and probably the most dangerous area with its quiescent, tampered underground dolomitic compartments – any day and time able to show the outcomes of its 75-year-long changing environmental face. Since gold mining commenced in the WRC area after 1933, man and environment have been exposed to boreholes, mine dumps, dewatering of the area’s dolomitic compartments, the drying up of eyes, sinkholes and subsidences as a result, water pollution, toxic waste, irresponsible utilizing of slimes, dust outfalls, deaths and growing health-related problems of which the consequences stretch much wider than just the WSC area.⁸⁹ The fifties and sixties were critical decades that saw a scenario of irreversible environmental change in the West Rand area. At that time, some scientists warned against the effects pollution could have on ecology and the health of all living organisms (man included).

89 Conclusions are based on archival research at the CGS Archive on the SCTC minutes and the FWRDWA minutes; Also compare A Turton, HJ Hattingh, GA Maree et al., *Governance as a triologue: Government – Society-Science in transition* (Berlin, Springer Verlag, 2007); RA Adler, M Claassen, L Godfrey, A Turton, “Water, mining and waste: an historical and economic perspective on conflict management in South Africa”, *The Economics of Peace and Security Journal*, 2(2), 2007, pp. 33-41; E-mail, Federation for a Sustainable Environment (FSE), 2007-2008; ES van Eeden, “Weaknesses in environmental action in South Africa: A historical glance on the West Rand (Gauteng Province)”, *International Journal of Water Resources Development*, Nov. 2008; E Tempelhoff, “Mynmonopolie se grumoeras”, *Beeld*, 2 Feb. 2007.

The above-mentioned warnings (without any concrete long-term action) continued for 45 years. We have entered 2008 and still no expansive research has been done to address historical amnesia concerning intellectual thoughts about findings and warnings regarding environmental pollution that have indeed existed since the sixties. No consolidated evidence or view regarding the effects and impacts of economic activities on the health of ecology in this region exists. Natural, social and human scientists rather pretend to differ in their views regarding past destructions and future remedial processes.⁹⁰

Currently, parts of the West Rand environment are irreversibly ruined. Basic and advanced remediation is necessary, and different views and approaches regarding social responsibility are perceived from within injurer and regulator circles with regard to some negatively perceived outcomes. Amongst others, they are the possible effects of water pollution on human health and the future changes of the West Rand environment. Environmental remediation for the sake of environmental remediation appears to be far from continuous man-centric thinking in the West Rand and, for that matter, elsewhere. Despite the numerous issues involved in intellectual thinking about the environment – and how the thinking has been transformed historically to at least emphasise environment more and to host many explanations and solutions – old, past ideologies on how to see environment are likely to be overturned by post-modern vibes of an environmentally friendly approach. Reasons for this negative scenario lie within man's thinking itself:⁹¹

- Regulators need the money to operate the rest of the country effectively.
- The injurer and the injured also are economic exploiters in their way of thinking

⁹⁰ Compare Powerpoint presentation, F Winde & EJ Stoch, "Threats and opportunities for post mining development in dolomitic gold mining areas of South Africa", Conference, Planning and development perspectives of mining towns in South Africa, 18 June 2008, in which the emphasis is more on man-centric innovative ideas to financially explore new ventures in dolomitic areas that appear as threats rather than to reconsider environmental remediation for the sake of the environment or a form of social responsibility directly related to past injustices done to man and environment in the West Rand, for example.

⁹¹ All the conclusions formed can be retrieved from the following historically based references regarding the Far West Rand: ES van Eeden, AB de Villiers, H Strydom, & EJ Stoch, "Mines, people and sinkholes – an analysis of the Carletonville Municipal Area in South Africa as case study regarding politics of secrecy" *Historia*, 47(1), May 2003; ES van Eeden, "Whose environment? Whose nature? – a trans-disciplinary discussion on some inhumane actions in the destruction and construction in nature – case study, the Merafong municipal region", South Africa International conference on humankind and the intersection of nature and culture, *Transdisciplinary Journal*, 2, Nov. 2006; ES van Eeden & I Brink., "Factors that determine the facilitation of stakeholders and role players in environmental management – some philosophical-historical thoughts with the Merafong area as example", *Koers* (4), 2007; ES van Eeden, "Past and present actions of environmental heritage by NGOs in the controversial Wonderfontein Catchment, Gauteng - a critical assessment", *New Contree*, 53, May 2007, p. 24; ES van Eeden, M Liefferink & Tempelhoff, "Environmental ethics and crime in the water affairs of the Wonderfontein Spruit Catchment, Gauteng South Africa", *Transdisciplinary Journal* (Presented for the May 2008 publication)

about their past, present and future.

- Environmentalists tend to prefer vibes only in areas and on podiums where controversy is not an issue.
- Environmental activists tend to focus mainly on environmental justice with the main focus on injustices done against humans.⁹² The rest of ecology – most of the time – features as a secondary issue.
- Past and present scientific reports more than often focus on key environmental issues of concern but, also more than often, reflect a major man-centric approach in final solutions rather than a balanced eco-centric or an environmental focus.

Thus, conceptually and in scientific research, the major way of thinking with regard to ecology currently is still one way as in the past: namely “man’s way”. Although the “past” ethical conviction that God has granted man “dominion” over the earth and that man may therefore exploit and use nature to his own ends⁹³ is not shared by all, the man-centric approach that is characteristic of past ways of thinking still rules present actions in the West Rand.⁹⁴ This is the unfortunate situation despite world-class environmental acts and a variety of intellectual ideas and concepts that are supposed to support refreshed and enlightened thinking about environmental issues. Unfortunately, a wide variety of conceptual thoughts closely related to the same issue can also be detrimental by nature because of the wide interpretation basis and/or the lack of consolidation to form efficient conclusions and solutions on an environmental issue. It has been accentuated in earlier discussions that literature of a post-modern environmental ethics nature also argues that science has become ecologically irrational, losing a commitment to sustainability and interdependence. In corporate ethics the concern for example in community projects is also more a matter of what can be gained economically rather than spent for the sake of...⁹⁵ As far as legal sciences and ethical traditions within

92 Compare Institute of Transport Studies, Working Paper ITS-WP-03-04, R Alsnih and PR Stopher, “Environmental justice applications in transport: The international perspective” (University of Sydney, Australia, October 2002), pp. 1-4.

93 Compare L White, “The historical roots of our ecological crisis”, G De Bell, ed., *The environmental handbook*, (New York, Ballantine, 1970), pp. 18-26; D Wall, *Green history* (Routledge, New York, 1994), p. 76.

94 Compare T Roszak, *Making of a counter culture* (New York, Faber, 1968); T Roszak, *Persoon en planeet* (Amsterdam, Meulenhoff, 1980); R Attfield, *The ethics of environmental concern* (Oxford, Blackwell, 1983); R Attfield, *Environmental philosophy* (Avebury, Aldershot, 1994); JA Nash, *Loving nature. Ecological integrity and Christian responsibility* (Nashville & Washington, Abingdon Press, 1991); PGW du Plessis, Manuscript on “Eco-ethics, the Christian and the future”, Potchefstroom University for CHE (currently North-West University), 27 May 1998; L Wilkinson, “How Christian is the Green Agenda?”, *Christianity Today*, 1993, pp. 17-20.

95 M Seeger & SJ Hipfel, “Legal versus Ethical arguments. Contexts for Corporate Social responsibility”, S May, G Cheney & J Roper, *The debate over corporate social responsibility*, p. 157.

an environmental set-up are concerned, the status quo is quite complex. In many ways, common law practices rather than legislative statutes may in future determine the outcome of reasoning regarding environmental case-based reasoning.

Capalbo says that most environmental or “green” issues are often presented as choices of either economic growth or environmental protection. She also mentions that a trend in early environmental war was that you could pinpoint or tie pollution to a specific source, but nowadays it appears to be “non-point” pollution (difficult because the source is not tangible or easily identified).⁹⁶ As far as environmental issues in the WRC are concerned, they can be regarded as “non-point”, though the gold mines certainly are a major polluter. If this *status quo* is analyzed further, one reaches the heart of all the “wrong-goings” and “wrongdoings” in the WRC, namely the “happy-go-lucky” environmental ethics or “gentlemen’s agreement” protocols of the day between the government and the gold mines.⁹⁷

From an environmental perspective, during the crucial period from 1956 to 1966, efficient decisions were made in the WRC between government and the mines under circumstances of good faith (known as the doctrine of duress). These years turned out to be “sad years” in the WRC because good faith turned out to focus more on economic exploitation to steam-roll economic success. Amongst others, the following events are recalled:

- Dewatering of underground compartments by the gold mines⁹⁸ (committees, associations & government’s voice in action).⁹⁹ Rewatering was even an option in the sixties, but it was never applied (with Blyvooruitzicht as the only mine then to vote for rewatering). In fact, rewatering of the West Rand, after mining closure by the mid 21st century, seems an inevitable event for which no solutions have been offered yet, and the harm already done regarding heavy metal pollution on the surface and an abortion of the compartment structure underground makes

96 Compare R Capalbo, “Environment”, as retrieved on 5 June 2008 in The issues, Chapter 2 on <http://webpage.pace.edu/cmalone/pc2004chapter2.html>, pp. 28-29.

97 Compare documents retrieved from files at the Geoscience Archive (GSCA) on the State Coordinating Technical Committee (SCTC) and the Far West Rand Dolomitic Water Association (FWRDWA). Both these groups have been operational in mainly the West Rand since the mid 1960’s.

98 GSCA, SCTC, File 391-450, Document 404, Report, H Keersmaekers and AP Aldridge, “A study of the quality of dolomitic water in the Far West Rand with special reference to the influence of mine drainage on the formation of sinkhole subsidences and underground water quality”, 1966, pp.1-2.

99 The State Coordinating Technical Council and the Far West Rand Dolomitic Water Association were founded in 1964 with the initiative of the government. See Geoscience Archive (GA), Pretoria, Minutes of the SCTC & the FWRDWA, 1964-1998.

it very difficult to monitor a rewatering process in future;¹⁰⁰

- Sinkholes and subsidences occurred (the fatal ones in the Blyvooruitzicht mining area even was expected via seismologic and borehole data and before the loss of life in August 1964);¹⁰¹
- Slime dams & boreholes appeared by the dozens. In 1967, the SCTC estimated that pumping costs for dewatering amounted to over R100 million.¹⁰² (Research has pointed out a) the harm of slimes as a filling option that pollute natural waters with dolomitic waters;¹⁰³ b) the dangers of soil imbalances in minerals such as strontium and boron; c) the eventual reducing of farming practices/selling and buying of farms in favour of mining activities; and d) the possible effects heavy metal pollution might have on animals and humans if sufficient care is not taken).¹⁰⁴

Ethical transgressions as perceived in the recorded history of the abuse of man-centric power regarding the environment by using slimes in the WRC area, as mentioned above, need accentuation. The acting Director and Chief Research Officer of the National Institute for Water Research (NIWR), Mr M.R. Henzen, was approached during this period to provide suggestions based on its research on the use of slimes. On 13 August 1964, he reported:¹⁰⁵

In South Africa, the coal and gold deposits are intimately associated with the occurrence of iron pyrites which are either finely disseminated throughout ore bodies and the adjacent strata, or appear sporadically as concretions of sulphuric compounds. Exposure of these materials to atmospheric conditions through mining activities, in slimes, sand and rock dumps, results in seepage, run-off and effluents are of a highly acidic nature [an accentuation by the author].

Needless to say, this warning has fallen on deaf ears since. Although past environmental outcomes of this specific action have proved not to be sufficient in filling up subsidences and sinkholes, its future backlash remains a guess when rewatering will catch up with the past environmental history of the WRC. All conceptual intellectual thinking about the environment will then

100 Compare Oral discussion Mr E van Wyk (Department of Water Affairs and Forestry), 19 June 2008.

101 See SCTC minutes and reports, 1964.

102 CGS-Archive, SCTC, File MM50/1/17/4, Disposal of Dolomitic water in Far West Rand, Part II, Letter, Minister of Mines/The President, Chamber of Mines of South Africa, ca 1967-1968.

103 GSCA, SCTC, File 37-76, Document 38, Letter, A Louw (Consulting Engineer GFSa)/JP Kriel (Secretary of The Department of Water Affairs), 25 June 1964, pp. 1-5.

104 Compare ES van Eeden, “Ekonomiese ontwikkeling en die invloed daarvan op Carletonville, 1948-1988...”; GSCA, SCTC & FWRDWA documents, 1964-1998.

105 Compare GSCA, SCTC, File 37-76, GSCA, SCTC, File 37-76, Document 44, Minute, 5th Meeting of the SCTC, 10 August 1964, pp. 1-8. Document 47, Letter, JP Kriel (Minister of Water Affairs)/The Consulting Engineer (Blyvooruitzicht Gold Mining Co. Ltd), 20 August 1964, pp. 1-2.

have no consolidated and sustainable effect on the “envirobusion” outcome to be witnessed.

Conclusion

The article has pointed out that most conceptual thoughts, as discussed, have articulated environmentally related issues for justness more from a view of harmful environmental actions against man than specifically against the environment. The article also reflected a variety of conceptual thoughts that contribute to the difficulties in clearly understanding environmental thinking (called “envirobusion”), and so spontaneously lead to “envirobusive” thoughts in theory and in behaviour in practice. Furthermore, it is accentuated how past environmental thinking and practices are still neatly embedded in the present-day practices of man in the environment and/or with regard to any environmental practices and malpractices, despite the fact that modern man is regarded as been more environmentally sensitive and that his “modern thinking” is reflected in a democratic constitution like that of South Africa.

In some sense, then, the centuries-old man-centric environmental ideology still prevails. John Citizen equally responded with a man-centric intention and not necessarily an environmentally concerned perspective.

It is said that researchers have an important role to play to act as agents in changing a position by using their research and intellectual thinking to alter the course of history. This requires researchers to move beyond the traditional treatment of the affected community as “subjects” and to view this opportunity as something more than just another publication.¹⁰⁶ It can also be added that, as long as corporate bodies and governments still handle documents regarding the democratic community they serve according to an autocratic ideology, that long it will take to follow a holistic approach to data retrieval and perusal to contextualize, in a balanced way, environmental issues and environmental conceptual thinking.

Because data from corporate companies are not easily available, all the world’s concepts related to environmental injustices fall short from an environmental justice perspective. In theory, presently developed environmentally and human-focussed acts have been adopted but, in practice, past ideological ethics

¹⁰⁶ See Bullard and Wright, (1993:836) as mentioned in RG Burns and MJ Lynch, *Environmental crime, a sourcebook*, p. 275.

regarding the environment still apply in the present because of difficulties to convert man’s past thinking to present thoughts and ideas. Consequently, a man-focussed approach to the environment still reflects the superiority of the human race.

In some conceptual thinking, problematic issues related to addressing injustices done to the environment have been articulated. Eventually, bureaucratic and regulating policies dominate, however, even within a so-called democratic dispensation. A democracy does not necessarily exclude the possibility of victimization when environmental issues are addressed. Eventually, it remains difficult to stand against power abusive environmental attitudes and injustices that mainly call for past ideology to operate in highly economically active areas in which environment is “something” to be dealt with on secondary thought.

Ironically, environmental injustices can be understood and managed only if all past and present knowledge and thoughts can be synchronized and debated to find a midway between perceived man-centric environmental wrongdoings and a balanced post-modern thinking about the past. Post-modern environmental thinking still appears to be vague and should be more constructive to be applied efficiently in the 21st century. In post-modern thinking about environmental justice, the wish for and focus on healthier environments should perhaps rather accommodate a balanced socially responsible focus between man’s needs, human equity as a requirement and the value of preserving the environment for the sake of the environment and not only for the sake of future generations.

Viewed within the historical thought from a South African perspective, post-modern thinking regarding man, his environment and his actions remains a reminder of past practices of dealing with the environment. Man (for example John Citizen, environmental activists, corporate organisations, governments) still act as if a free “dominion” has been granted over the piece of earth he/she occupies to use and abuse it as he/she wishes. The concept of environmental justice appears to be of major importance if it can secure at least a healthier environment for those living in it and not necessarily for the sake of and with a responsibility to the environment. In addition, the principle that the polluter pays as stated from environmental acts, and a payment of environmental injustices done by whatever corporate establishment in the past appears to weigh much more among especially environmental activists than ideas to remediate environmentally for the sake of the environment only.

In economic and political ways of thinking by capitalists and politicians, efforts of how to soothe the minds of locals with too little effort of firmness regarding environmental regulation for the sake of man and the environment are equally visible.

The fact that neither government nor corporate organisations have to earn the direct favour of communities, for example to exploit the mineral treasures of the country, makes it difficult to push for responsible and just social actions such as those you will find in businesses dealing directly with the public and whose future lies in the hands of consumers. John Citizen cannot point fingers to governing bodies and economic giants that are accused of not acting eco-ethically and responsibly and have to put up with a baggage of legacies from the past. For example, local environments are currently sighing under pressure of ordinary man abusing his environment as a dump or litter site, and so indirectly accentuates man's thinking about his authoritarian position over environment.¹⁰⁷

From a national point of view, the questions of ethics and the human rights of those affected have become insignificant issues. It appears that the State has opted not to be ethically accountable for the psychological and economic setbacks suffered by inhabitants of the area. Although thinking about the environment has changed in the past 40 years – through conceptual thinking and the taking of practical actions – to be more environmentally sensitive, some key motivators for many reactive responses are definitely still man-centric, conform to “envirobusion” and, according to Tolle, probably still purely mind related:

*When you perceive nature only through the mind, through thinking, you cannot sense its aliveness, its beingness. You see the form only and are unaware of the life within the form – the sacred mystery. Thought reduces nature to a commodity to be used in the pursuit of profit or knowledge or some other utilitarian purpose. The ancient forest becomes timber, the bird a research project, the mountain something to be mined or conquered.*¹⁰⁸

107 See as examples of the remarks in discussion: ES van Eeden; AB de Villiers, H Strydom & EJ Stoch, “Mines, people and sinkholes –an analysis of the Carletonville Municipal Area in South Africa as case study regarding politics of secrecy” *Historia* 47(1), May 2003; ES van Eeden, “Whose environment? Whose nature? – a trans-disciplinary discussion on some inhumane actions in the destruction and construction in nature – case study, the Merafong municipal region”, *Transdisciplinary Journal*, 2, November 2006; “Marine protected area”, http://sacoast.uwc.ac.za/publications/2D-Mgmt.Policy_Legislation.pdf as retrieved on 7 June 2008, p. 11; “Hartbeespoort Dam remediation project”, www.dwaf.gov.za/Harties/documents/ProgrammeBookletNov07.pdf as retrieved on 7 June 2008; “XDC, Water and the environment”, p. 2, 4,8.

108 E Tolle, *Stillness speaks* (Hodder & Stoughton, USA, 2003), p. 81.