

The South African Constitution: Are Sustainable Buildings Mandatory?

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Abstract:

The South African Constitution is widely recognised as one of the most progressive constitutions worldwide. The Constitution has a strong focus on human rights and the environment. This recognised through a requirement for reasonable legislation and other measures to be developed to ‘secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development’

This paper aims to understand the implications for the built environment of this statement through interpreting and expanding this into an explicit set of requirements for the built environment. The paper discusses these requirements in light of existing legislation and reflects on whether adequate measures are being taken in the built environment to implement and promote environmental aspects of the South African Constitution.

Keywords:

- Built Environment, Constitution, Sustainability

1 Introduction

This paper reviews the environmental and sustainability implications for the built environment of the South African Constitution. In particular, Section 24 on environmental rights is analysed to ascertain the implications and obligations of this for the built environment.

The analysis shows that the Constitution includes a set of explicit rights in relation to the environment and sustainable development. The Constitution also requires that these rights to be realised through ‘*through reasonable legislative and other measures*’.¹ In order to ascertain whether these rights are being realised through these means the paper reviews key building-related legislation in the form of building regulations, health and safety legislation and environmental management legislation.

¹ Section 24 of the South African Constitution

The review reveals that current building-related legislation only partially addresses the environmental and sustainability rights stated in the Constitution. The paper outlines a number of areas where legislation falls short of Constitutional requirements and makes some recommendations on how these gaps could be addressed.

2 The South African Constitution

Constitutions set out how government is organised and defines how power should be shared and wielded. Like a contract between those in power and those who are subjected to this power, a Constitution defines the rights and duties of citizens, and outlines the mechanisms to keep those in power in check. (South African Constitutional Court, 2009)

The South African Constitution was developed in 1996. As the supreme law of South Africa it may not be superseded and government and other parties may not violate provisions within this. It contains a Bill of Rights that enshrines the rights of all people in South African and affirms the democratic values of human dignity, equality and freedom. The Bill has sections covering equality, human dignity, privacy, freedom of religion belief and opinion, environment, property, housing, healthcare, food, water and social security, children, education, language and culture. Through a section on equality, the Bill requires that all people have full and equal enjoyment of these rights and freedoms:

Everyone is equal before the law and has the right to equal protection and benefit of the law.

Equality includes the full and equal enjoyment of all rights and freedoms. To promote the achievement of equality, legislative and other measures designed to protect or advance persons, or categories of persons, disadvantaged by unfair discrimination may be taken.²

Rights in the Bill are however subject to limitations. These are outlined in Section 36 of the Bill:

The rights in the Bill of Rights may be limited only in terms of law of general application to the extent that the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom, taking into account all relevant factors, including –

- a. the nature of the right;*
- b. the importance of the purpose of the limitation;*
- c. the nature and extent of the limitation;*
- d. the relation between the limitation and its purpose; and*
- e. less restrictive means to achieve the purpose.³*

² Section 9 of the South African Constitution

³ Section 36 of the South African Constitution

The role and responsibility of government is also outlined in the Bill. This specifically requires government to achieve the rights outlined in the Bill:

The state must respect, protect, promote and fulfil the rights in the Bill of Rights. ⁴

Environmental rights in the Bill of Rights include the right to an environment that supports health and well being. It also requires legislation to be developed to ensure that the environment is protected and that development that does occur is both sustainable and justifiable:

24. Environment

Everyone has the right

- a. to an environment that is not harmful to their health or well-being; and*
- b. to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that*
 - i. prevent pollution and ecological degradation;*
 - ii. promote conservation; and*
 - iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development* ⁵

2.1 Implications of Section 24 of the Constitution for the Built Environment

There are a range of implications for the built environment of Section 24 outlined above. This requires some interpretation of the Section and for the following questions to be answered:

- What is defined as an environment?
- How is health and well being defined?
- What does ecologically sustainable development mean?
- What is meant by justifiable economic and social development?

2.2 The Environment

There is no comprehensive international treaty on human rights and environment that can be used to understand how the environment should be defined in the Bill of Rights (South African Human Rights Commission, 1996a). The 1972 Stockholm Declaration on the Human Environment adopted by the UN Conference on the Human Environment however begins to define rights and obligations of man in regard to the environment:

Man has the fundamental right to freedom. Equality and adequate conditions of life, in an environment of quality that permits a life of dignity and well being, and he bears the solemn responsibility to protect and improve the environment for present and future ⁶

⁴ Section 7 of the South African Constitution

⁵ Section 24 of the South African Constitution

⁶ UNEP <http://www.unep.org> viewed: 06/06/2009

The African Charter on Human and People's Rights adopted by Heads of States of the Organisation for African Unity in 1981 sets out how the environment should be interpreted in terms of human rights within an African context:

*All peoples shall have the right to a general satisfactory environment favourable to their development.*⁷

Section 24 of the Bill of Rights indicates that the environment can be defined both as natural and man-made environments. De Waal suggests that this definition includes 'man made objects and cultural and historical heritage' (De Waal 1999). Feris argues therefore that in interpreting Section 24, traditional rights, needs and values and the dignity of indigenous people should be taken into account (South African Human Rights Commission, 1996b).

2.2.1 Implications for the built environment

Therefore the following implications of the South African Constitution can be inferred for the built environment:

- The built environment should create environments favourable for the development of people.
- Built environments should take into account the traditional rights, needs and values of indigenous peoples.

2.3 Health and Well Being

The World Health Organisation (WHO) defines health in the following way:

*Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.*⁸

Given this broad definition it is clear that environments conducive to health and well being are likely to be described in different ways by different people and socio-economic groups. Wealthy people may wish to protect the environment in order to avoid mental or aesthetic discomfort. Poor rural people, on the other hand, would want to protect the environment because they rely on this directly for clean water and food. (South African Human Rights Commission, 1996a)

2.3.1 Implications for the built environment

Therefore the following implications of the South African Constitution can be inferred for the built environment:

- The built environment should ensure that built environments support physical, mental and social well being.

⁷African Commission on Human and People's Rights. <http://www.achpr.org> viewed: 06/06/2009

⁸Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948. <http://www.who.int/suggestions/faq/en/index.html> viewed: 06/06/2009

- Criteria used to define physical, mental and social well being in built environment must take into account, and respond to, the particular situation of the people who occupy and use these built environments.

2.4 Ecologically Sustainable Development

Principles from the Rio Declaration on the Environment and Development can be used to define the sustainable development. The principles below from the Declaration indicate that development must be equitable and that environmental protection must be integrated into development:

Principle 3

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Principle 4

*In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.*⁹

2.4.1 *Implications for the built environment*

The following implications of this definition for the built environment can be inferred:

- Development of the built environment should ensure that developmental and environmental needs of present and future generations are achieved in an equitable way.
- Conservation and protection of the environment should be integrated in to any built environment development process.

2.5 Justifiable Economic and Social Development

Justifiable economic and social development can be interpreted through reference to other sections of the Bill of Rights. These sections include rights to housing, healthcare, food, water and social security and education:

26. *Housing*

*Everyone has the right to have access to adequate housing.*¹⁰

27. *Health care, food, water and social security*

Everyone has the right to have access to ∩

- health care services, including reproductive health care;*¹¹

29. *Education*

Everyone has the right ∩

- to a basic education, including adult basic education; and*

⁹ UNEP <http://www.unep.org> viewed: 06/06/2009

¹⁰ Section 26 of the South African Constitution

¹¹ Section 27 of the South African Constitution

- c. *to further education, which the state, through reasonable measures, must make progressively available and accessible.*
- d. *sufficient food and water;*¹²

It can be argued that development that helps to ensure that these rights are achieved can be classified as *justifiable economic and social development*. Conversely, development that does not directly contribute to the achievement of these rights may not be deemed justifiable.

2.5.1 *Implications for the built environment*

Therefore the following implications of the South African Constitution can be inferred for the built environment:

- Development of built environments that directly contribute to the achievement of rights outlined in the Bill of Rights may be deemed to be justifiable
- Development of built environments that do not contribute to the rights defined in the Bill of Rights may be deemed not to be justifiable.

2.6 Discussion

Given the above interpretation of Section 24 of the Bill of Rights, it is possible to review current building related legislation in order to ascertain whether this is effective in upholding the Constitution. Legislation used to control building development in South Africa include the Building Regulations (South African Bureau of Standards 1990), the Occupational Safety and Health Act (Department of Labour 1987, 1988, 1983), and the National Environmental Management Act (Department of Environment and Tourism 1998). This legislation is reviewed below to ascertain its alignment with the environmental and sustainability building implications of the South African Constitution.

2.7 Health and Well Being

Legislation on health and well being in built environments can be found in the Building Regulations and in the Occupational Health and Safety Act. The Building Regulations set out minimum requirements for lighting and ventilation (South African Bureau of Standards, 1990). Other aspects such as thermal and acoustic performance are not dealt with, because it is argued, these can only be judged in a subjective manner:

*There are other aspects to a building which may affect only the comfort or convenience of people but many of these, such as acoustic or thermal performance, are judged in a subjective way and are not readily amenable to control in a sensible manner by regulation. It is also obvious that the market will limit the degree to which these matters can be considered in the design of a building.*¹³

¹² Section 29 of the South African Constitution

¹² Section 24 of the South African Constitution

¹³ SABS (1990), *Code of Practice for the Application of the National Building Regulations*. South African Bureau of Standards, Pretoria. pp 101-115

The Occupational Health and Safety Act addresses health and well being through the Facilities Regulations and the Environmental Regulations for Workplaces. The Facilities Regulations require minimum standards for sanitation, changing rooms, dining rooms, drinking water and seating. The Environment Regulations for Workplaces sets out requirements for hot and cold working environments, lighting, windows, ventilation, space and noise.

The legislation does not address thermal conditions in working or living environments where temperatures are between 0 and 30°C. Temperatures between this range, for instance 2°C, and 29 °C, are therefore deemed acceptable, even though these may not be conducive to health and well being.¹⁴ This gap in legislation has resulted in many buildings such as housing, offices and classrooms being built without insulation and passive or active cooling or heating systems.

The legislation is not responsive to different requirements of sections of the population in terms of health and wellbeing. For instance, babies, children and sick people who are more sensitive to heat and cold are not catered for, and temperatures in school environments can reach 45°C. (Dolley and Hermanus, 2009)

Similarly, legislation allows poorly constructed housing with no insulation to be built. This is often occupied by people with few resources to counter, through heating or cooling, discomfort and ill health caused by high or low temperatures (Mathews et al 1995). Open fires are also used to heat housing, leading to suspended particulates being found to be between 3 to 12 times higher than those prescribed by the World Health Organisation (Terblanche 1992).

It can therefore be argued that building related legislation does not sufficiently uphold the right to health and wellbeing outlined in Section 24 of the Bill of Rights. In particular, building legislation does not prescribe any minimum thermal or acoustic standards in building. The lack of legislation in this area can lead to thermal and acoustic environments in buildings which are damaging to health and well being. In addition, the legislation does not address other issues such as the presence of volatile organic compounds in air, as a result of off gassing from carpets, adhesive or paint which have also been shown to have a harmful effect on health (Wieslander et al 1996).

2.8 Indigenous Construction

The Building Regulations are performance-based and aim to avoid prescriptive requirements.¹⁵ Theoretically this approach should allow, and encourage, alternative and indigenous construction materials and designs that are more affordable and supportive of health and well being. In reality however, local authorities have been wary of approving anything considered 'alternative construction' without further information, as outlined below.

¹⁴ For instance, human comfort is indicated as being between 20°C and 27°C on the comfort chart used in American Society of Heating, Refrigerating and Air-Conditioning Engineers, 1992. *ANSI/ASHRAE Standard 55-92 Thermal environmental conditions for human occupancy.*, Atlanta, GA, 1992.

¹⁵ SABS (1990), *Code of Practice for the Application of the National Building Regulations*. South African Bureau of Standards SABS, Pretoria. pp 40.

Where there is doubt as to the efficiency of any design or method of construction proposed the local authority may call for further information which normally would take the form of one or more of the following -

- (i) a test report from the SABS;*
- (ii) a test report from the CSIR;*
- (iii) an Agreement certificate;*
- (iv) verification of a design by an independent Professional Engineer.¹⁶*

This clause can be used by local authorities to prevent any construction other than standard 'European' type construction. This has resulted in most buildings in South African towns being constructed of brick and corrugated steel, even though in rural, unregulated areas, mud brick and thatch are traditionally used as building materials.

It therefore could be argued that building related legislation does not sufficiently uphold traditional rights, needs and values and the dignity of indigenous people, if this included in the definition of 'well being' outlined in Section 24 of the Constitution. It does this by making it more difficult, and more expensive, for alternative and indigenous building methods to be used by requiring test reports, certificates or verification from a professional engineer.

2.9 Ecologically Sustainable Development

The Building Regulations and the Occupation Health and Safety Act do not include any reference to sustainable development or conservation and protection of the environment. This however is addressed by the National Environment and Management Act (NEMA) (Department of Environment and Tourism 1998). This states that:

(3) Development must be socially, environmentally and economically sustainable.

(4) (a) Sustainable development requires the consideration of all relevant factors including the following:

- i. That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;*
- ii. that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;*
- iii. that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;*
- iv. that waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner;*
- v. that the use and exploitation of non renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;*

¹⁶ SABS (1990), *Code of Practice for the Application of the National Building Regulations*. South African Bureau of Standards SABS, Pretoria. pp 43.

- vi. *that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;*
- vii. *that a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and*
- viii. *that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.*¹⁷

In order to implement these principles NEMA uses a number of mechanisms including the application of environmental management tools. These are required to:

- a. *promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment;*
- b. *identify, predict and evaluate the actual and potential impact on the environment, socioeconomic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2;*
- c. *ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them;*
- d. *ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment;*
- e. *ensure the consideration of environmental attributes in management and decision making which may have a significant effect on the environment; and*
- f. *identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2.*¹⁸

In addition, NEMA allows the Minister to identify activities which may not be commenced without prior authorisation. It can also be used to identify areas in which specified activities may not be commenced without prior authorisation:

- (a) identify activities which may not be commenced without prior authorisation from the Minister or MEC;*
- (b) identify geographical areas in which specified activities may not be commenced without prior authorisation from the Minister or MEC and specify such activities;*¹⁹

¹⁷DEAT (1998), National Environmental Management Act. Department of Environment and Tourism, Pretoria. Chapter 1

¹⁸ DEAT (1998), National Environmental Management Act. Department of Environment and Tourism, Pretoria. Chapter 5

¹⁹ DEAT (1998), National Environmental Management Act. Department of Environment and Tourism, Pretoria. Chapter 5

This legislation is used to control the development of activities such as billboards, large water reservoirs, masts (over 15m), roads (wider than 15m), hospitality facilities and landing strips in sensitive areas identified by provinces. Sensitive areas identified include conservancies, indigenous state forests, protected areas and areas zoned for public open spaces in urban areas.

While this legislation is a clear attempt to support the Section 24 of the Constitution there is a gap between the principles espoused in the Act and how this implemented. Chapter 1 of NEMA (see above) states that development must socially, environmentally and economically sustainable. This however is never fully defined or followed through in the Act, which instead dwells at some length on defining development activities and geographical areas where legislative control may be exerted. The legislation is not explicit on what types of development would be considered sustainable and therefore high density urban housing, which may be seen as more socially, environmentally and economically sustainable is not given preference or support over development that may be seen as being less sustainable such as golf courses or casinos.

It can therefore be argued that current legislation does not adequately define or describe sustainable development, or ensure that this achieved. Existing legislation tends to be used to limit particular types of development in specified geographical areas. It can be argued that sustainable development, as defined in the Constitution, has broader and more far reaching implications.

2.10 Justifiable Economic and Social Development

Building related legislation does not define justifiable economic and social development. This however is alluded to in Chapter 5 from NEMA (see above) which suggests that development should 'maximise benefits'. This could be interpreted to mean maximising social and economic benefits.

Legislation, therefore, does not provide guidance on whether development can, or cannot be deemed justifiable. Without this, it is difficult to promote 'justifiable' development such as schools, housing and health facilities that ensure that rights in the South African Constitution are fulfilled, in preference to other development which does not.

Chan and Yung argue that greater flexibility should be used in the way building legislation is applied to ensure that there is greater flexibility and support for land uses that are beneficial to communities or which can be 'justified' in this way. In their review of building related legislation for Hong Kong they show that legislation tends to hamper innovation and can produce unsustainable infrastructure (Chan and Yung 2003).

2.11 Conclusions and Recommendations

This paper suggests that building related legislation does not adequately uphold and support Section 24 of South African Constitution. It suggests that the rights outlined in Section 24 have not been sufficiently translated into clearly defined minimum built environment requirements, or recognised and supported, through enabling legislation. A number of recommendations are outlined below which could be explored to ensure that building related legislation was more effective in meeting Constitutional obligations.

- **Health and well being:** Minimum thermal performance requirements could be prescribed for building. In particular, prescribing minimum R-values in roofs of buildings which is a low cost measure could be used to significantly improve health and well being in many buildings (Mathews et al, 1995).
- **Indigenous and sustainable construction:** Indigenous and more sustainable alternative construction should be recognised and supported through deemed-to-satisfy clauses in the building regulations. This would enable buildings with this type of construction to readily achieve approval from local authorities without additional expense.²⁰
- **Sustainable development:** Sustainable development must be translated into mandatory requirements for the built environment. This could include mandatory energy and water efficiency measures as well as prescribed labour intensity, health and education performance requirements.²¹
- **Justifiable development:** Justifiable development could be defined in legislation and steps taken to promote this over development that was less justifiable or unjustifiable. This legislation could be used to ensure that development that fulfilled Constitutional rights such as rights to housing, education and health were supported and achieved in preference to development that did not.

While these recommendations could improve building standards and equity, the law is still likely to be seen as a rule based system dictated by government. Building related legislation will continue to be used to define only minimum standards and may be seen as largely irrelevant to the design process (Patlis, 2005).

In order for sustainability and Constitutional requirements to be more effectively integrated into buildings, a more explicit and practical understanding of their implications for the built environment needs to be developed. This should be used to inform built environment decision-making processes in order to achieve built environments that were more sustainable and reflected the South African Constitution better. The law from this perspective would enable and support a process of integrated decision-making guided by practical norms based on human rights and sustainability (Reisman and Aaron, 1987)

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