



**Essential Readings in Environmental Law**  
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## **EMISSION CONTROL IN NIGERIA AND SOUTH AFRICA**

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### **OVERVIEW OF KEY SCHOLARSHIPS**

1. Okorodudu–Fubara, M. T., *Law of Environmental Protection: Materials and Text* (Ibadan: Caltop Publication, 1998) 387 – 398.
2. Olarenwanju F., *The Law of Oil Pollution and Environmental Restoration: A Comparative Review* (Odade Publishers, 2010).
3. Von Blottnitz, H., C. Fedorsky, and W. Bray, “Air Quality” in Strydom, H. A., and N. D. King, (eds) *Environmental Management in South Africa* (JUTA, 2009).
4. Glasewski, J., *Environmental Law in South Africa* (Lexis Nexis, 2013).
5. Hallowes, D., *Toxic Futures: South Africa in the crisis of Energy, Environment and Capital* (University of KwaZulu-Natal Press, 2011).
6. Kidd, M., *Environmental law* (JUTA, 2011).

### **Background**

Emission is the proverbial burden which runs with the benefits of industrialization and growth in technology. As a major source of air pollution in the environment, emissions are particles and gases which are discharged into the air as by-products of a process by man or nature. Apart from being the most populous sub-Saharan nations, Nigeria and South Africa are emerging economies and investment destinations. This status makes the two countries major and future contributors to global emission. While South Africa occupies the 13th position on the world emitting countries' list, Nigeria competes with Russia for the number one position in global gas flaring. In the case of South Africa, its rising profile as emitting nation is based majorly on the fossil fuel CO<sub>2</sub> industry, and closely followed by emission from the oil industry. Similarly, Nigeria's oil production centres in the Niger Delta are known major sources of emission from gas flaring and refinery operations. Emission from this source, particularly from flared associated gas from some 250 oil wells is estimated at 2.5 billion cubic feet per day. The reviewed works here provide insight into emission as one of the environmental problems in the two countries. Furthermore, the sources, the legal positions and control measures for emission under the legal frameworks of the two countries are highlighted through the reviewed literatures.

Some of the authors of the books and articles have wide experiences in teaching of environmental laws and are contributors at different international meetings on climate change and related issues of emission and carbon control. The books by **Okorodudu-Fubara, Fagbohun, Kidd** and **Glazewski** as general literatures on environmental law in Nigeria and South Africa respectively provide general knowledge about the legal frameworks on control of environmental problems including emission in the two countries. Other literatures address the specific subject of emission control measures in general and the two countries respectively. These books and articles are essential readings in the emerging emission control literatures in the two countries.

1. **T. Okorodudu-Fubara** is one of the pioneers of environmental law in Nigeria. His text ***Law of Environmental Protection: Materials and Text*** provides a broad overview of environmental law in Nigeria. This is backed with substantial reference to developments in the field in the United States. A major part of the text is dedicated to air resources protection in chapter 5. The sources of air pollution, and by implications emission in Nigeria, are identified in the text as Bush burning, waste incineration, vehicular emissions, industrial process, petroleum productions and scientific manipulations of the atmosphere. On control of different emitted substances which are enumerated in the text, the author outlined applicable legislation with the aid of some decided cases both from the courts in Nigeria and the United States. The failures of legislation to address the problem of gas flaring and possible policy options are raised in the text.
2. **F. Olarenwanju's** book ***The Law of Oil Pollution and Environmental Restoration: A Comparative Review*** is on the environmental aspect of oil production in Nigeria. The author compares the position of the laws of some countries on control of pollution from oil operations with the legal regime in Nigeria. In particular it provides an overview of the different legislations on control of environmental pollution in the oil industry in Nigeria. In Pages 175–181, the effects of emission of particulates and gaseous substances from oil production on the atmosphere in Nigeria are discussed. These are identified as: increased concentration of gases into the atmosphere which leads to greenhouse effects; emission of primary elements like sulphur and nitrogen oxide which affect water bodies; damages from acidic gases or substances to properties; emission from flared which leads to destruction of the ozone layer, vegetation and alteration of genes of living organisms among others. The author also highlights the shortcomings of the legal framework for control of pollution, including emission control in the oil industry in Nigeria.
3. **H. Von Blottnitz, C. Fedorsky and W. Bray's** book titled, ***Air Quality***, is a comprehensive literature on environmental protection and management in South Africa. The chapter 16 of the book on air quality introduces the reader to the beginning of a new clean air regime in South Africa. This is premised on the new legislation on air quality management under the ***National Environmental Management: Air Quality Act 2004***. The

authors mirror air quality management against international standards and models from countries like the United States, Sweden and Canada. Issues like the rationale for air quality management, air quality management systems, emission inventories and factors, air quality monitoring and air quality information system are discussed in concise forms. An important dimension in the literature is the section on emission control technologies.

4. **J. Glasewski's *Environmental Law in South Africa*** is the latest major work on environmental law in South Africa. The importance of air quality as a fundamental link to health is emphasized in the work. The work identifies the release of matters (i.e. gas, liquid or solid) from activities like (i) energy generation, (ii) industrial processes, (iii) domestic energy generation, vehicular exhaust emissions and others "...at levels which have undesirable effects on human health, natural and physical environment" as factors in air and atmospheric pollution in South Africa. Unfortunately, this burden, according to the author, is borne by the poor communities. The control measures provided under the general principles for pollution control, and specific international legal frameworks on protection of the atmosphere, the *1996 Constitution of the Republic of South Africa* together with modern legislations like the *National Environmental Management Act* and the *National Environmental Management: Air Quality Act* are outlined in clear language. This is backed up with the latest court decisions on the subject of environment and emission. New regulations and policy directives like ambient air quality and emission standards, vehicle emission tax, and air quality management measures under the new legislations are highlighted in chapter 22 of the book.
5. **D. Hallows's *Toxic Futures: South Africa in the crisis of Energy, Environment and Capital*** provides an overview of the impact of industrialization through emission of particulates, greenhouse gases and other gaseous substances into the atmosphere in South Africa. Written from an environmental justice background, the author links poverty with unsustainable developments and degradation. Emission problem in South Africa is discussed here as environmental injustice to the local people. This is further addressed in line with existing realities on increased global warming, climate change and apocalyptic predictions like increase water stress, short falls in agriculture and food production.
6. In the book titled *Environmental law*, **M. Kidd** provides an insight into environmental protection in general in South Africa. In terms of air quality and emission control, the shortcomings and the transition from the *Atmospheric Pollution Prevention Act (APPA) No. 65 of 1965* is discussed. The author examines in detail the innovations in the new Air quality control regime under the *National Environmental Management Act 107 of 1998*, *National Environmental Management: Air Quality Act 39 of 2004*, and other related legislation in South Africa. On environmental problems in general in South Africa (emission inclusive), the author provides an overview on the innovations in terms of

mechanisms and measures under the constitutionally driven environmental law regime of South Africa. These include: right to environment; state use of criminal sanction; alternatives to criminal sanctions like administrative measures; economic instruments; and self-regulation. Furthermore, the power of individuals to rely on the constitutional and legal framework to control environmental problems and challenges is discussed.