



FACULTY OF SCIENCE

DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL MANAGEMENT & ENERGY STUDIES

MODULE ENM3A10
ENVIRONMENTAL ETHICS, ECONOMICS AND ADMINISTRATION

CAMPUS APK

EXAM JUNE 2019

DATE 8 JUNE 2019

SESSION 8:30 – 11:30

**ASSESSOR(S) MRS E.K. BLOCK
MRS L.S. MODLEY**

EXTERNAL MODERATOR

**PROF M.D. SIMATELE
WITS**

DURATION 3 HOURS

MARKS 120

NUMBER OF PAGES: 3 PAGES

INSTRUCTIONS:

- 1.** Answer each section in a separate answer book
- 2.** Answer 4 questions, 2 questions from each section. Note: there are choices in both Sections 1 and 2
- 3.** Number your answers carefully and use the numbers that are used in the question paper.

SECTION 1: ENVIRONMENTAL ETHICS AND ECONOMICS

ANSWER TWO OF THE FOLLOWING QUESTIONS

QUESTION 1.1.

Explain how Green economists rethink the relationship between the economy, the environment and society. Draw diagrams to illustrate your explanation. **(30)**

QUESTION 1.2

Using the headings below, write an essay on the problem of environmental degradation and sustainability:

- a) Invasive alien species
- b) Habitat alteration and loss
- c) Pollution and climate change
- d) Change in hydrological regimes
- e) Lack of property rights

(30)

QUESTION 1.3

In Klare's article (2010) *Clean, Green, Safe and Smart*, he concludes by saying that "adopting an enlightened new philosophy to guide our nation's future energy plans is the single most valuable thing we can do in the wake of the Deepwater Horizon tragedy."

Discuss the energy plan he proposes and analyse what South Africa could learn from this. **(30)**

[60]

SECTION 2: ENVIRONMENTAL ADMINISTRATION

ANSWER ALL OF THE FOLLOWING QUESTIONS

QUESTION 2.1

***Case study 1: Clifton 4th beach: of slaughtered sheep, drowned slaves
and collective rituals***

Marianne Thamm • 30 December 2018 Maverick Insider

Clifton 4th beach is a sun-kissed paradise for moneyed tourists, designer drenched middle-classes and many of the city's ordinary citizens of all colours and classes who have the means to get to this little gleaming cove where the water laps up to the armpit of some of the most expensive real estate in the province.

Ice cream, cool drink and umbrella vendors crunching through the fine sand in the heat can be heard calling out across the beach as they ply their trade.

A private Cape Town security company, Professional Protection Alternatives, PPA, had, by flouting the laws of the country, attempted to close off a public beach after sunset which is exactly when the small strip of soft, gleaming shore at Clifton 4th beach is at its most beguiling.

Clifton 4th beach is currently regarded as one of the world's top ten beaches. Blue Flag and all. It was a unilateral and illegal action that could not and cannot remain unchallenged.

Accusations of "growing criminality" on Clifton and the alleged attempted sexual assault of two teenagers have not been confirmed or proved. Either way, even if there had been a report of a crime, it is not PPA's place to deal with it.

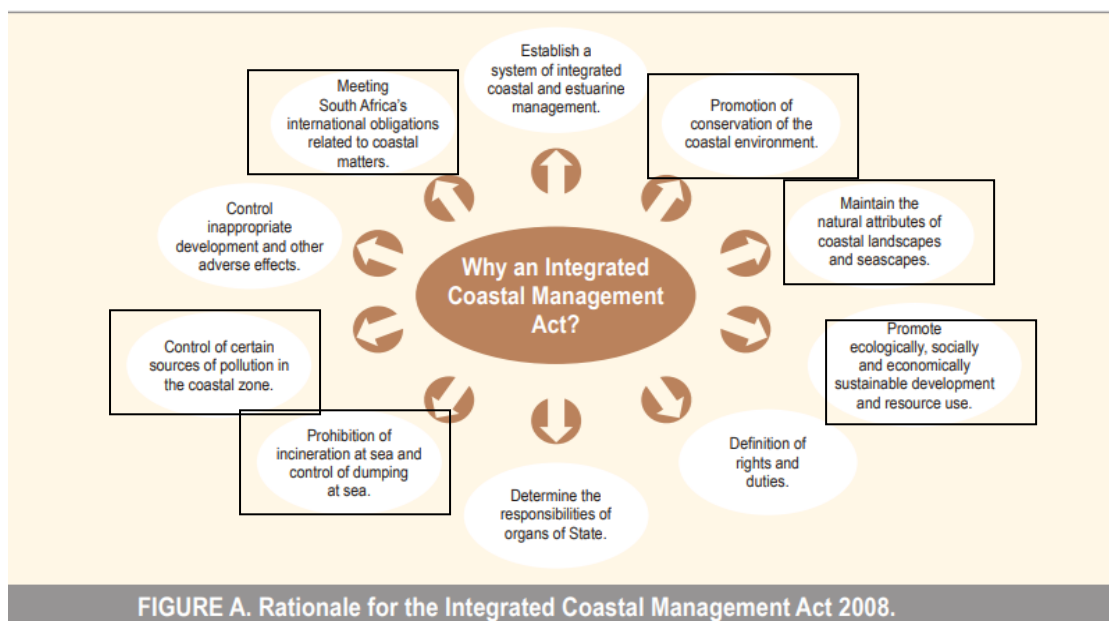
Regardless of how PPA found themselves on the beach that evening, it was their action that triggered the series of events that followed.

The grand irony, of course, is that as it so happened, current ANC Western Cape Secretary-General, Faiez Jacobs, and his friends and family were enjoying their annual twilight picnic on the beach on Sunday 23 December 2018 when PPA struck.

Task: The scenario above occurred during December 2018, and the matter is now being taken to court. Which sections of the Integrated Coastal Management (ICM) Act were contravened and how? Explain how the situation goes against the rationale of the ICM Act and how the coastal management has evolved legally in South Africa by referring to relevant literature. **(20)**

- **In order to promote the conservation of the coastal environment, and maintain the natural attributes of coastal landscapes and seascapes,**

- and to ensure that development and the use of natural resources within the coastal zone is socially and economically justifiable and ecologically sustainable; to define rights and duties in relation to coastal areas;
- to control dumping at sea, pollution in the coastal zone, inappropriate development of the coastal environment and other adverse effects on the coastal environment;
- to give effect to South Africa's international obligations in relation to coastal matters; and to provide for matters connected therewith.



The evolution of coastal management in South Africa



This article makes a contribution to address the overwhelming 'present-

mindfulness' of tourism geography scholarship. Using a range of archival sources an analysis is undertaken of the rise and demise of racial segregation on South Africa's beaches during the period 1953-1989. The division of beach space along racial lines is an aspect of the implementation of what was termed 'petty apartheid'. This analysis reveals that the national government's attempts to legislate the making of beach segregation were uneven and contested in different coastal centres. By the 1980s, however, mounting opposition and resistance to the apartheid state resulted in the crumbling of beach apartheid and the formal desegregation of beach spaces.

QUESTION 2.2

Case Study 2: Joburg waste pickers face routine harassment

By Christopher Clark • 12 March 2019 Maverick Insider

On a humid February afternoon, 40-year-old Michael Machine pulled a trolley laden with large bags of recyclable plastic along a gravel path on the edge of the Braamfontein Spruit, a leafy park in the affluent Johannesburg suburb of Sandton.

Machine is one of about 70 waste pickers, mostly from Lesotho, currently living in a shaded corner of the spruit. Their temporary tarpaulin-covered structures are surrounded by large piles of plastic bottles, broken down cardboard boxes and aluminium cans.

Machine moved to South Africa in 2003, leaving behind a security job in Lesotho that he says paid only R300 per month. Struggling to pin down regular work in Johannesburg, he started reclaiming recyclable waste in 2009. "There were no other jobs available," he says.

Professor Rinie Schenck, who researches waste management at the University of the Western Cape, has previously told GroundUp that waste pickers like Machine recycle as much as 90% of the recyclables collected from South African households, saving up to R750-million in landfill space every year.

But despite this significant contribution, Johannesburg's waste pickers face routine harassment, discrimination and eviction by City officials and Johannesburg Metro Police Department (JMPD), according to local NGOs and pickers interviewed by GroundUp.

“Waste pickers often get evicted from open land or next to complexes, being accused of causing crime in those areas without any evidence,” says Vanessa Pillay, of an NGO called WIEGO that advocates for people in the informal economy. She says that pickers’ materials and belongings, including ID documents, are regularly destroyed during evictions and raids.

You have been given the mammoth task of training the informal waste pickers as an environmental lawyer:

- a) Identify the piece of legislation that you would use for this training and justify why you would use it for the training.

NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT 59 OF 2008

To reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith.

- b) Outline and explain how the waste they collect should be classified according to the legislation in South Africa.

According to origin (domestic, industrial, commercial, nuclear, medical, construction, agricultural, building rubble)

Chemical properties (eg. Inert, toxic, flammable)

Physical properties (eg. Radio-active levels, state, moisture content or biological characteristics)

Extremely high-risk

potentially acute hazard to safety of people

High-risk

potentially acute (or chronic) hazard to the health of people

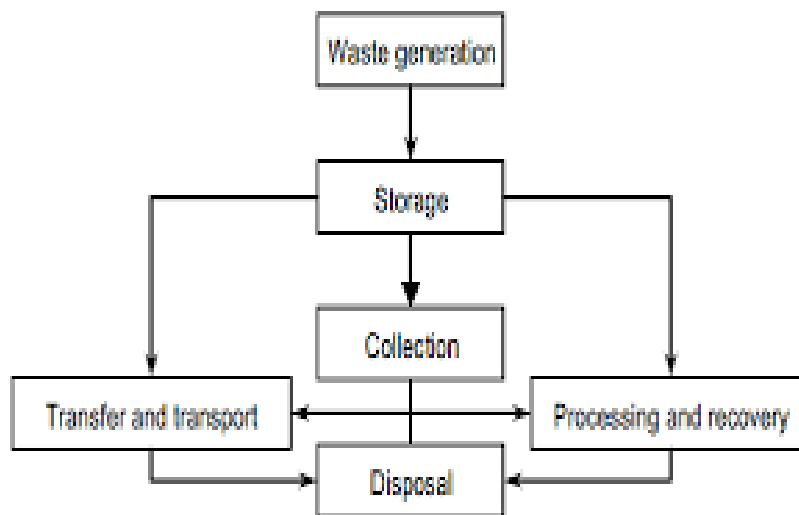
Intermediate risk

Potentially chronic hazard to health of people or environmental systems

Low-risk

No evidence of risk to human beings but potential hazard to environmental systems, and/or property⁷, and/or nuisance

- c) Classify and explain the waste lifecycle and where the waste pickers fit in. (20)



QUESTION 2.3

An excerpt from: “South Africa drops nuclear energy plan”

Bloomberg. 27 August 2018

“Some labour groups have opposed renewable power generated by private developers, arguing that the projects threaten jobs. While coal will decline to less than half of the country’s total installed capacity by 2030, it will still contribute more than 65% of energy production, according to the plan. Gas and wind power will account for more than 30 percent of capacity.

“There is significant change in the energy mix post 2030, which is mainly driven by decommissioning of old coal power plants that reach their end of life,” Radebe said. Close to 30 gigawatts of Eskom’s coal fleet is to reach end-of-life by 2040, according to the draft document.

South Africa’s power demand has declined and is currently at levels last seen more than a decade ago, according to the energy department, and electricity consumed is about 30 percent less than projections used in the 2010 plan. The latest proposals are available for public comment for 60 days.”

Task: If given the opportunity to comment as an interested and affected party would you opt for the use of fossil fuel or nuclear energy? Use your educated opinion to support your decision.

Your answer must also include how your choice contradicts or agrees with the following laws and guidelines pertaining to air quality:

-a) Multilateral Environmental agreements

Multilateral environmental agreements

- **Kyoto Protocol**
 - **Parties to the UNFCCC have been meeting since 1994 to implement and define the UNFCCC, and at the third meeting of the Parties, the Kyoto Protocol was adopted.**
 - **This Protocol sets legally binding GHG reductions for industrialised countries**
- **Montreal Protocol**
 - **The Montreal Protocol is an international agreement designed to protect the stratospheric ozone layer**
 - **The Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere such as CFCs are to be phased out by 2000**

-b) Agenda 21

Agenda 21

- **One of the key outputs was Agenda 21 which provides the options for combating degradation of the land, air and water, conserving forests and the diversity of the various species.**
- **It predominantly focuses on poverty, excessive consumption, health, education and cities**
- **Calls on governments to adopt national strategies for sustainable development which must be developed with**

wide participation, including nongovernment organisations and the public.

-c) Sustainable development goals (previously known as the Millennium Goals development) (20)

Millennium Development Goals (MDGs)

- The MDGs are targets that have been set to eliminate problems such as poverty and gender inequality
- These goals were developed under the Millennium Declaration and are as follows (UNDP, 2005):
 - Eradicate extreme poverty and hunger;
 - Achieve universal primary education;
 - Promote gender equality and empower women; ·
 - Reduce child mortality;
 - Improve maternal health;
 - Combat major disease;
 - Ensure environmental sustainability; and ·
 - Develop a global partnership for development

[60]

TOTAL: 120 marks