



**2024 ENGINEERING INSTITUTION OF ZAMBIA  
SYMPOSIUM**

**THE ROLE OF ENGINEERING PROFESSION IN  
ENHANCING ETHICS AND SOCIAL RESPONSIBILITY**

**Avani Victoria Falls Resort, Livingstone, Zambia**

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# Presentation outline



1. Introduction
2. The concept of Ethics and Ethical issues
3. Ethical Issues
4. Social Responsibility in Engineering
5. Benefits of Ethics and Social Responsibilities
6. Challenges
7. Recommendations
8. Conclusion

# 1.0 INTRODUCTION

1. Engineering is a **profession** that plays a **crucial role in shaping the world** we live in.
2. Therefore, it is essential for engineers to **prioritize ethics and social responsibility** in their practices to ensure the safety and well-being of the society.
3. Based on literature review , the presentation discusses the **benefits of incorporating ethics and social responsibilities into engineering practices**, as well as the **challenges that engineers may face in following ethical guidelines.**



# ETHICS AND SOCIAL RESPONSIBILITY

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## ETHICS

*Beliefs about  
right and wrong.*

## SOCIAL RESPONSIBILITY

*The obligation of a business  
to contribute to society.*

**A Close Relationship, but Not the Same**

## 2.0 THE CONCEPT OF ETHICS AND ETHICAL ISSUES

1. The word "ethic," derived from the **Greek term "ethos,"** refers to **a set of principles or moral values that govern behavior or actions** within a particular profession or society.
2. Ethics encompasses **beliefs about what is right or wrong, good or bad.** Ethics in engineering is also referred to as a set of principles and values that guide the conduct of engineers in their professional (Ethan-Han, 2023).
3. Ethical behavior in engineering extends beyond technical competence to encompass **honesty, integrity, and responsibility** in all aspects of work.
4. Engineering Institution of Zambia (EIZ) support engineering ethics through **Code of Ethics** which sets out the ethical standards that all Engineers in Zambia are expected to adhere in their professional practice

## 3.0 ETHICAL ISSUES

Ethical issues in engineering refer to **concerns and dilemmas** that **arise from the ethical implications of engineering practices, decisions,** and technologies (Khan, 2022). Figures below show figurative expressions showing concerns and dilemmas arising from ethical issues





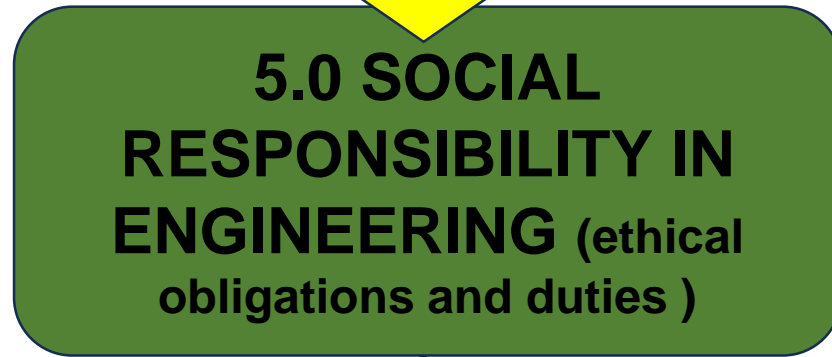
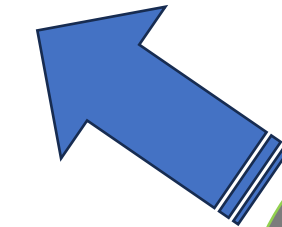
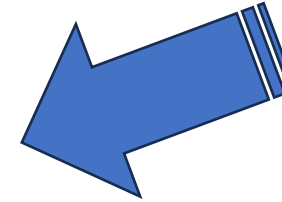
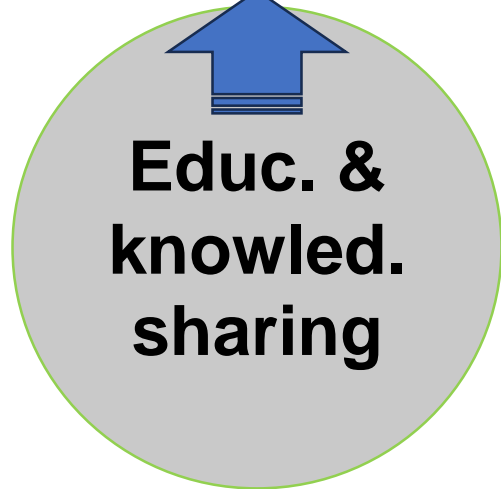
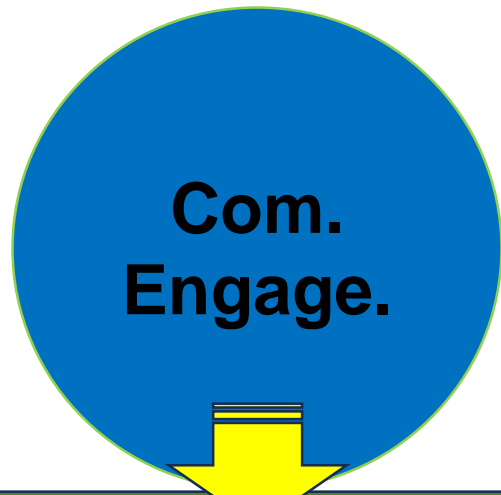
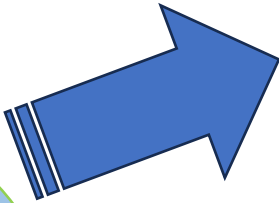
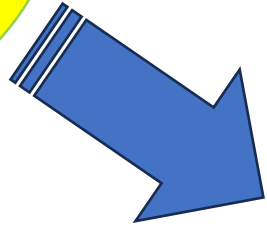
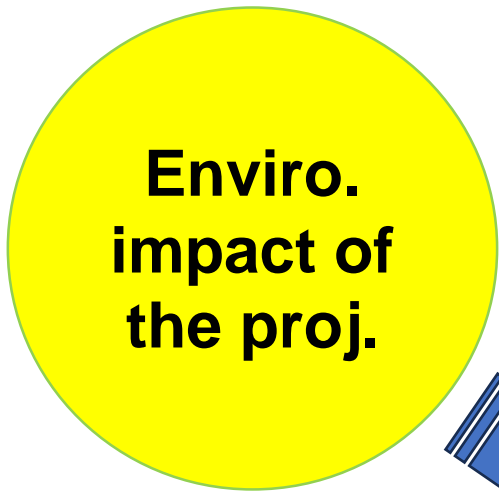
# 4.0 SOCIAL RESPONSIBILITY IN ENGINEERING

## Social Responsibility and Ethics in Business



Social responsibilities refer to the **ethical obligations and duties that individuals** and organizations have toward society (Ajayi, 2016).

Social responsibilities **guide ethical behavior and encourage actions** that positively impact society, these include.....

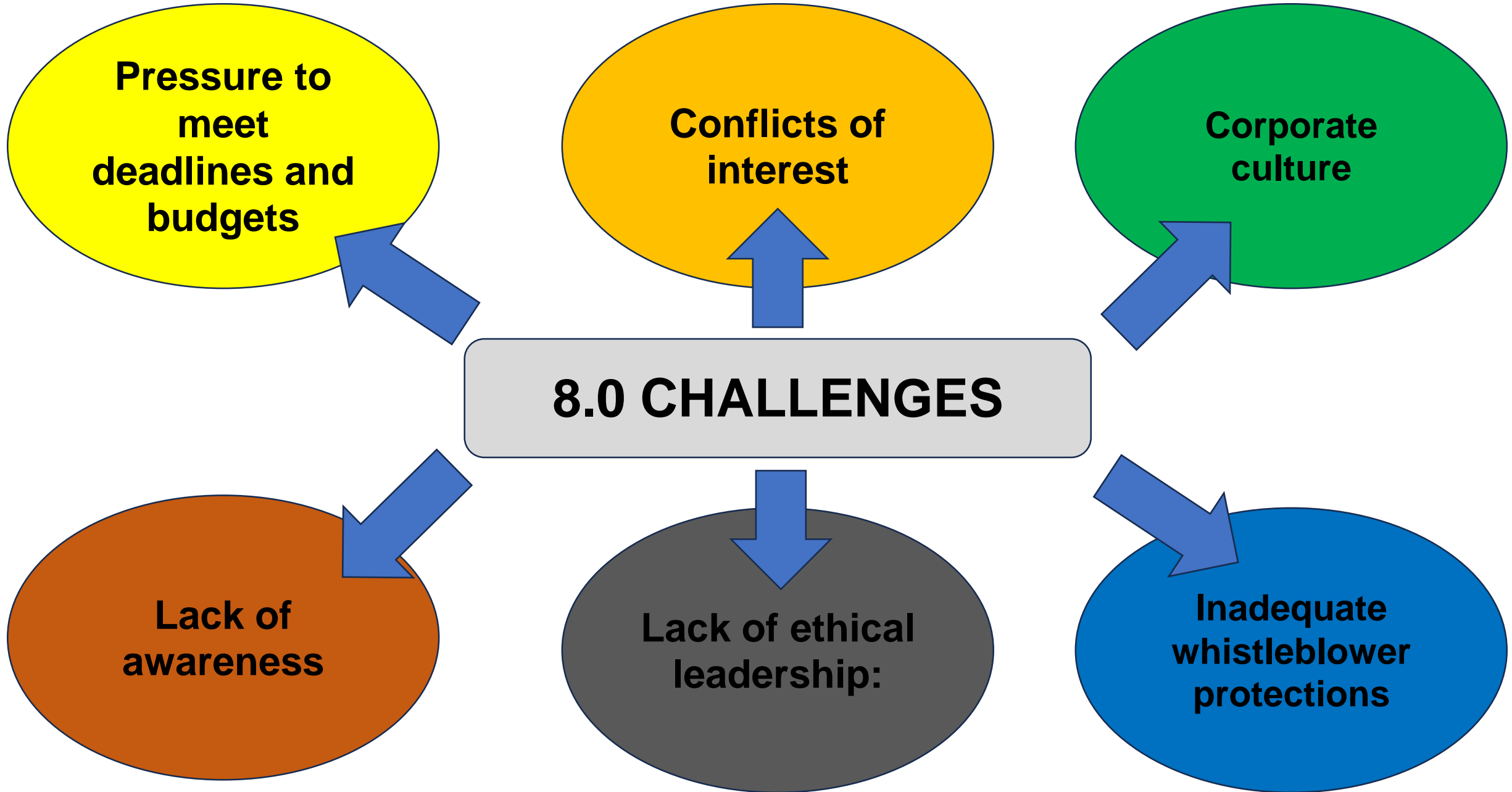




## 7.0 BENEFITS OF ETHICS AND SOCIAL RESPONSIBILITIES

1. **Enhanced public trust:** Embracing ethical practices and social responsibilities **builds trust between engineers and the public.**
2. **Risk mitigation:** Adhering to ethical guidelines helps **identify and mitigate potential risks in engineering projects.**
3. **Long-term sustainability:** Integrating social and environmental considerations into engineering decisions promotes **sustainable practices.**
4. **Positive corporate image:** Companies and organizations that prioritize ethics and social responsibilities in engineering **enhance their corporate image.**
5. **Legal compliance:** Adhering to ethical standards and social responsibilities ensures compliance with legal requirements.
6. **Employee morale and retention:** Employees working in an ethical and socially responsible environment are likely to experience higher morale.



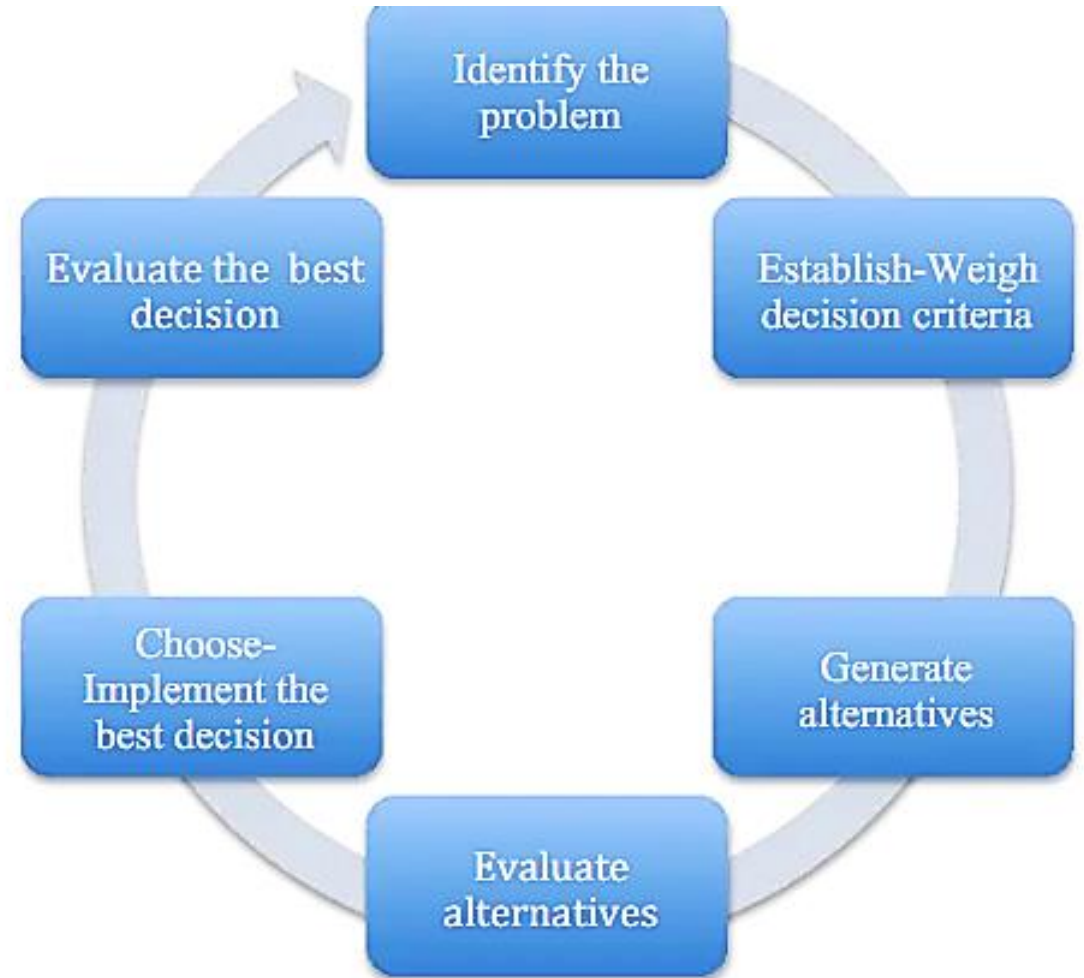


## 9.0 RECOMMENDATION TO THE CRISIS OF ETHICS AND SOCIAL RESPONSIBILITY

- a. **Scrutinize the engineering decision at hand comprehensively.** Assess both the positive and negative consequences associated with each option. What outcomes are likely with each choice, and how will users interact with the engineering product or service?
- b. **Evaluate how well your actions align with moral values** and engineering codes of ethics. Contemplate the possibility that, in the presence of conflicting principles, one principle may outweigh others in importance.

3. After analyzing the **consequences and aligning actions with ethical standards** and engineering norms, arrive at a decision based on what you deem to be the **most ethically sound**.

4. According to (Shanker, 2014), the **Ethical decision-making framework** can also be implemented when addressing ethical dilemmas.



# 10.0 CONCLUSION

1. Engineers will undoubtedly **encounter ethical challenges and social responsibility** as they develop new technology, engineering methods, and goods.
2. Ethical issues and social responsibility are **integral aspects of the engineering profession**, shaping the conduct of engineers and influencing the impact of their work on individuals and communities.
3. It is necessary that **engineers learn to implement the ethical decision-making framework** which could in turn improve the quality and respect of engineers in the field.





**Q&E**