

**MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FAUTLY OF COMPUTING AND INFORMATICS.**

**COURSE UNIT: WEB DESIGN AND DEVELOPMENT**

**COURSE CODE: BIT1203**

**LECTURER: MR ROBERT MUGONZA**

**STUDENT: NAKIGANDA FLAVIA**

**REGISTRATION NO: 2024/BIT/009**

**COURSE WORK: WEB DEVELOPMENT AND DESIGN**

**PROBLEM: ENVIRONMENTAL DEGRADATION**

**WEB BASED SOLUTION: CREATING AWARENESS ON ENVIRONMENTAL CONSERVATION.**

**TYPE OF WEBSITE: INFORMATIONAL SITE**

**TARGET AUDIENCE: COMMUNITY**

RAISING AWARENESS ON ENVIRONMENTAL CONSERVATION

**Environmental conservation is all about protecting natural resources, reducing waste, and promoting sustainable practices to ensure a healthier planet for future generations.**

Eco action hub

**Core Features**

* **Action Library**: A collection of simple, impactful eco-friendly actions (e.g., reducing plastic use, planting trees, saving energy).
* **Tracking & Rewards**: A system where users can log completed actions and earn points or badges.
* **Community & Sharing**: A space for users to share experiences, tips, and progress.
* **Resources & News**: Articles, videos, and infographics on sustainability.

**Awareness & Engagement**

* **Social Media Integration**: Encourage users to share their achievements.
* **Partnerships**: Collaborate with environmental organizations.
* **Challenges & Campaigns**: Monthly eco-challenges to keep users engaged.

ENVIRONMENT CONSERVATION CHALLENGES, MEASURES AND SOLUTIONS

**KEY CHALLENGES IN ENVIRONMENTAL CONSERVATION**

* **Deforestation** – Leads to loss of biodiversity and contributes to climate change. This is as a result of expanding agriculture, urbanization and logging.
* **Pollution** – Air pollution from industries and vehicles, water pollution from plastic waste, chemicals and sewage that harm marine life. Also soil pollution from pesticides and industrial waste affects agriculture and food security. These all harm ecosystems and human health.
* **Climate Change** –Rising global temperatures lead to extreme weather patterns, rising temperatures, and natural disasters such as droughts, floods and wildfires.
* **Waste Management** – Plastic pollution and improper disposal of waste leading to pollution and long-term environmental damage.

Some countries lack adequate recycling and waste management systems.

* **Loss of Biodiversity** – Species extinction due to habitat destruction and pollution.
* **Weak environmental policies and enforcement**. Some governments lack strict environmental regulations or they fail to enforce them effectively.

**Also, corruption and illegal activities like poaching and logging make conservation efforts difficult**.

* **Water Scarcity** – Overuse and pollution of freshwater sources.
* **Overconsumption & Unsustainable Practices** – Excessive use of natural resources. Overfishing, deforestation, and excessive water use deplete ecosystems faster than they can recover.

**2. Measures to Address These Challenges**

* **Reforestation & Afforestation** – Planting trees to restore ecosystems to restore biodiversity and wildlife habitats, improve air and water quality, and also prevent soil erosion and desertification.
* **Reducing Pollution** – Implementing stricter regulations and encouraging sustainable alternatives such as adoption of cleaner production technologies by industries.
* **Renewable Energy Use** – Shifting to solar, wind, and other sustainable energy sources.
* **Sustainable waste reduction and recycling** – Encouraging zero-waste lifestyles and proper waste disposal.

**Promoting creative ways to repurpose items instead of discarding them**.

**Educating people on proper recycling practices to minimize landfill waste**.

* **Wildlife Conservation** – Creating protected areas and enforcing anti-poaching laws.
* **Water Conservation** – Promoting water-efficient practices and reducing pollution in water bodies.
* **Sustainable Consumption** – Encouraging eco-friendly products and responsible consumer behavior.

**SOLUTIONS FOR A SUSTAINABLE FUTURE**

**A sustainable future requires a combination of individual actions, policy changes, and technological advancements.**

* **Education & Awareness** – Teaching people about sustainability through platforms like Eco-Action Hub, partnering with organizations that support reforestation projects.
* Renewable energy transition. Investing in solar, wind and hydroelectric power, encouraging energy efficiency in homes and businesses as well as supporting policies that phase out fossil fuel dependency.
* Eco friendly urban planning. Developing green cities with more trees, parks and efficient public transportation.
* **Government Policies & Enforcement** – Strengthening laws on pollution control and conservation. Supporting international agreements like the Paris Climate Accord.
* **Technology & Innovation** – AI for environmental monitoring, biodegradable materials, and green infrastructure.
* **Community Initiatives** – Local clean-up drives, tree-planting campaigns, and conservation programs.
* **Corporate** businesses **Responsibility** – Encouraging to adopt sustainable practices.

**key Areas of Waste Reduction**

* **Plastic Waste** – Promoting reusable alternatives and recycling.
* **Food Waste** – Encouraging composting and mindful consumption.
* **E-Waste** – Raising awareness about proper disposal and recycling.
* **Textile Waste** – Supporting sustainable fashion and upcycling.

WEBSITE WIREFRAME

FOOTER SECTION

ECO TIP

ECO TIP

ECO TIP

SECTION 3

SECTION 2

SECTION 3

SECTION 1

HEADER

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