

**Name: Wasif Ahmed Alvi**  
**College: Dow College Of Pharmacy**  
**Year Of Study: 4<sup>th</sup> Year Pharm-d**  
**Roll no: 014 (Morning)**

## Proposal with the name "Clean & Green Karachi"

### Introduction:

The "Clean & Green Karachi" initiative seeks to address the environmental issues Pakistan's largest city, Karachi, is now facing and make it a clean, green, and sustainable metropolitan center. This proposal offers a thorough strategy for addressing the issues of waste management, pollution, a lack of green space, and subpar cleaning and hygiene procedures. By putting strategic measures into place, working with stakeholders, and increasing public awareness, we hope to give Karachi people access to a better and more sustainable environment.

### What is the problem:

Karachi experiences several environmental issues that negatively affect its citizens' quality of life. The following are some of the main issues that the people of Karachi are now experiencing, along with the potential outcomes if they are not resolved:

#### **1. Ineffective Waste Management:**

**Problem:** Karachi now suffers from an inefficient waste management system, which causes unchecked dumping, littering, and pollution. If the problem is not fixed, there will be increased pollution and health risks as a result of incorrect garbage disposal.

- Degradation of the quality of the land, the water, and the air.
- Affects investment, tourism, and the appearance of the city as a whole negatively.
- Growing hazards to the public's health and the spread of illnesses.

#### **2. Inadequate Green Spaces and Parks**

**Problem:** Karachi lacks sufficient green spaces and parks, which leads to a dearth of leisure opportunities and insufficient biodiversity preservation. The result if the issue is not resolved:

- A lower quality of life for locals due to their restricted access to parks and other natural areas.
- The extinction of species and ecological imbalance.
- A worsening of the urban heat island effect raises temperatures and deteriorates air quality.

- A detrimental effect on one's mental and physical health because green spaces are essential for stress relief and relaxation.

### **3. Lack of Cleanliness and Hygiene:**

**Problem:** Karachi has issues with cleanliness and hygiene due to limited trash disposal facilities and a lack of knowledge about ethical waste management procedures. The result if the issue is not resolved:

- A deterioration in the state of the public's health, including the spread of illnesses and infections.
- Negative effects on tourism and prospective investment because attracting tourists and businesses depend on a clean and healthy environment.
- Deterioration of the city's reputation and perception, which has an impact on Karachi's overall appearance and livability.
- A decrease in people's general health and quality of life as a result of an unhealthy living environment.

### **4. Unsustainable Transportation:**

**Problem:** Karachi's reliance on private vehicles and poor public transportation networks results in significant traffic jams and high air pollution levels. If the issue is not fixed, there will be:

- More traffic congestion, which will increase travel times and diminish productivity.
- Negative effects on the environment as a result of increased carbon emissions, which contribute to climate change;
- Health hazards brought on by poor air quality and high levels of air pollution, which result in respiratory disorders and other health problems.
- A decline in the city's viability due to the negative effects of traffic-related stress and pollution on locals' health.

### **5. Water Scarcity and Mismanagement:**

**Problem:** Karachi experiences water shortages as a result of population increase, climate change, and poor water management practices. 5. Water Scarcity and Mismanagement. If the issue is not fixed, the following consequences will occur:

- Water rationing and reduced access to clean water for locals.
- An increase in the use of groundwater extraction, which causes the depletion of water supplies and land subsidence.
- Increased susceptibility to drought and other water-related climate problems.
- The detrimental effects of a lack of water on industry, agriculture, and overall economic growth.

These problems must be addressed right away because they cumulatively lower Karachi residents' quality of life.

# How will we resolve these problems:

We suggest a comprehensive strategy incorporating the following actions to address Karachi's environmental issues. Here are some tactics and projects that can be used in Karachi to address the aforementioned issues:

## **1. Waste Management:**

- Establish an integrated waste management system that includes recycling facilities, waste segregation at the source, and appropriate disposal methods.
- Run awareness programs to inform locals of the value of recycling and safe waste management procedures.
- Work together with neighborhood associations, non-profit organizations, and waste management businesses to ensure effective waste collection and disposal.
- Enforce laws and impose hefty fines for littering to discourage careless garbage

## **2. Green Spaces and Parks:**

- Begin a city-wide tree-planting initiative with a focus on placing trees in open spaces, on highways, and in common places.
- Create and preserve urban forests, botanical gardens, and parks to promote biodiversity and give locals access to recreational areas.
- Work together to create community gardens and green spaces with nearby communities and environmental organizations.
- Use sustainable landscaping techniques that emphasize native plant species and water conservation.

## **3. Hygiene and cleanliness:**

- Promote a culture of cleanliness among the populace by conducting cleanliness programs to increase awareness.
- Ensure that there are more public garbage cans and that they are regularly emptied and maintained.
- Enforce cleaning laws and levy fines for inappropriate garbage disposal and littering.
- Encourage the teaching of cleanliness and hygiene in community centers, colleges, and schools.

## **4. Sustainable Transportation:**

- Enhance current infrastructure, boost bus and rail frequency, and broaden the network to improve public transportation systems.
- Encourage the usage of electric cars by putting up charging stations all across the city.
- Create designated bike lanes and pedestrian-friendly walkways to promote environmentally friendly transportation choices.
- Use traffic control techniques to ease congestion and enhance traffic flow.

## **5. Water Conservation:**

- Install rainwater harvesting systems in homes and businesses to gather and use rainwater for non-potable uses.
- Spread awareness of water-saving techniques and products, such as low-flow plumbing fixtures and irrigation systems.
- Launch awareness programs to inform locals about efficient water use and conservation practices.
- Keep an eye on and control water bodies to ensure their cleanliness and put protection measures in place for water resources.

## **Estimated Cost for Resolving These Problems:**

A staged approach and sufficient financial resources are required to successfully implement the "Clean & Green Karachi" plan. It will be necessary to carefully evaluate and distribute the costs for waste management infrastructure, tree planting campaigns, cleanliness campaigns, transportation enhancements, water conservation measures, and educational initiatives. Both capital expenditures and ongoing costs will be taken into consideration in the development of a thorough cost analysis and budget plan. The implementation period will last for several years, with regular reviews and modifications made to ensure goal progress. Costs and Schedule for Karachi's Environmental Problems:

### **1. Waste Management:**

Building infrastructure like waste segregation centers, recycling facilities, and trash disposal sites will require investment to establish an integrated waste management system. This program is expected to cost somewhere around 7 billion Rupees.

- Funding will be needed for materials, seminars, and community involvement initiatives to carry out awareness campaigns and educational programs that encourage appropriate waste management practices. This endeavor is expected to cost somewhere about 1 billion Rupees.

- More money will be needed to pay for extra enforcement officers, monitoring systems, and public awareness campaigns if harsher penalties for littering are put into place and legislation is enforced. This program is expected to cost about a billion Rupees.

### **2. Green Spaces and Parks:**

- Funding will be needed for the purchase of tree seedlings, manpower costs for planting, and maintenance to start a citywide tree planting initiative. This program will probably cost around 5 million to complete.

- Costs associated with land acquisition, infrastructure construction, landscaping, and continuing maintenance will be incurred throughout the development and upkeep of urban forests, botanical gardens, and parks. This program will probably cost around 10 billion to complete.

### **3. Cleaning and Hygiene:**

Funding will be needed for promotional materials, adverts, community outreach, and awareness programs to carry out cleaning campaigns. This endeavor is expected to cost somewhere about 10 million.

- Purchase costs for the trash cans and ongoing operational costs for waste collection will be necessary to increase the number of public trash cans and ensure their regular emptying and upkeep. This program is expected to cost around 3.5 billion Rupees.

- Funding will be needed for public awareness programs, monitoring systems, and enforcement officers to enforce cleaning requirements and impose penalties. This endeavor is expected to cost somewhere about 10 million Rupees.

### **4. Sustainable Transportation:**

- Investing in new infrastructure, buying more buses or trains, and putting smart transportation technologies into place will all add to the cost of improving public transportation systems. This program will probably cost around 2 billion Rupees to complete.

- Funding will be needed for the construction of the infrastructure needed for charging stations as well as incentives to encourage the use of electric vehicles. This program will probably cost around 8 million Rupees to complete.

- The construction of designated bicycle lanes and pedestrian-friendly routes will require money for infrastructure and sign-posting. This program will probably cost around 5 million to complete.

### **5. Water Conservation:**

Installing rainwater harvesting systems in homes and businesses will cost money for the systems' setup, upkeep, and public awareness campaigns. This project will probably cost around 20 million to complete.

- Funding for awareness campaigns, subsidies for water-efficient appliances, and financial incentives for adopting sustainable irrigation systems are all necessary for promoting water-efficient technology and practices. This program will probably cost around 30 million to complete.

- The expense of water quality tests, surveillance equipment, and enforcement personnel will be incurred during the monitoring and regulation of water bodies. This program will probably cost around 18 million to complete.

These efforts will need to be implemented over several years in stages. The timetable will outline milestones for each project, such as purchasing, building, awareness campaigns, etc.

It is crucial to remember that the cost projections offered are just estimates and could alter depending on variables like inflation, scope changes, and market conditions. To assist these projects,

financing can also be sought from a variety of governmental sources, public-private partnerships, foreign grants, and community contributions.

## **Executive Summary:**

The "Clean & Green Karachi" concept lays out a comprehensive plan to make Karachi a clean, green, and sustainable metropolis. We can resolve the environmental issues facing the city by tackling trash management, increasing green spaces, boosting cleanliness and hygiene standards, improving transportation, saving water resources, and encouraging education and collaboration. To accomplish the desired results, the proposal emphasizes the necessity of strategic planning, stakeholder participation, public awareness, and enough financial resources. By putting this plan into action, Karachi will become a healthier and more livable city, which will benefit both the present and future generations.

The "Clean & Green Karachi" initiative offers a road map for thorough environmental reform, to sum up. Karachi can overcome its environmental issues and turn into a shining example of a sustainable and prospering metropolis with concerted efforts, collaboration, and a shared commitment from all stakeholders.