

Q: Environmental issues can be tackled with environmental management and decision-making. Discuss.

Explicating the Concept of Environmental Management

Environmental Management, as defined by United Nations Environment Programme (UNEP), encompasses the coordinated efforts to address environmental challenges through implementation of policies, regulations, and sustainable practices. It involves the integration of environmental considerations into decision-making process across various sectors, including industry, agriculture, transportation and urban development. Through collaboration among governments, civil society, scientific community and other stakeholders, environmental management seeks to achieve a harmonious relationship between human development and environmental conservation.

Expounding Environmental Issues Needed to be Addressed

Environmental issues are plaguing this planet and demanding urgent attention. From deforestation that are ravaging forests to pollution that is choking air and water, the consequences

are dire. Climate change is getting intensified day by day that is causing extreme weather events. Biodiversity loss is threatening ecosystem. Plastic pollution is suffocating marine life while unsustainable practices are depleting natural resources. Thus the time to act is now and sustainable solutions to mitigate these challenges must be prioritized.



Figure : Environmental challenges needed to be Tackled

Ilucidating Efficient Decision-Making for tackling environmental issues

Implementing effective environmental strategies is paramount in safeguarding this planet from burgeoning environmental issues. By making transitions in energy systems from non-renewable to renewable energy resources and promoting clean energy through environmental awareness in public,

the growing environmental crisis can be mitigated.

2- Transition in Energy Systems

Environmental issues can be mitigated by making transition in energy systems from non-renewable energy sources to renewable energy sources. For instance, Iceland is using the most renewable energy in the world for the purpose of sustainable development. In Iceland, almost 100% of energy production is from renewable sources like 73% electricity coming from hydropower and 27% from geothermal (National power company Iceland, renewable energy production, 2023).

b- Transition in transport systems

Environmental issues can be addressed by making transitions in (en^e) transportation systems. For promoting sustainable transports, the government should implement heavy taxations on vehicle emissions and Electric Vehicles (EVs) should be promoted. Because the efficiency of gasoline vehicle is 17-21% while that of EV is 85-90%. According to International Energy Agency (IEA), in order to achieve the target of zero-carbon emissions of 2050

decided in Cop-26, the carbon emissions from transport should be reduced by 3% per year upto 2030. ✓

c- Increasing Global Forest Cover

Forests are carbon sinks and according to environmental statistics the forest cover of a state should be 25% of total area but their volume is decreasing rapidly, thus causing environmental degradation. By increasing global forest cover, the globe can be protected from environmental crisis like global warming. For this purpose, the governments must launch ^{tree} plantation drives. For instance, Pakistan has launched Billion Tree Tsunami project under which it became successful in regenerating more than 2.5 billion trees.

Promotion of Sustainable Urbanization

Environmental issues like climate change, deforestations, population explosion are directly linked with ^{rapid} urbanization. And this can be tackled by promoting sustainable urbanization in countries. For instance, the ~~growing economies~~ of the world like India and China are focussed on developing **sponge cities** for mitigating Urban Heat Island Effect. China has constructed 30 sponge cities from 2015-2022. As per findings, Auckland stood at top having 35% sponginess; while Singapore, New York and Mumbai stood at 30%. (The Guardian, **sponge cities**, December 2022).

e- Promoting Urban Plantation

By focussing on infrastructure and promoting modern engineering techniques in building, environmental issues can be mitigated. For instance, in ~~sponge cities~~ engineers focus on ~~vertical expansion~~ rather than horizontal expansion. In this way, land is used effectively and open spaces are left for plantation. In this way, cooling effect is produced.

which prevents cities from getting heated.

f- Promoting Sustainable industrialization

Industrialization has given rise to global warming, urbanization, deforestation and pollution. But all these issues can be handled by promoting sustainable industrialization. According to latest pledge of states at IMO for Decarbonization of Shipping Industry, states will ensure 30% reduction in carbon emissions from shipping industry till 2030 and will improve it to 70% till 2040.

g- Promoting Environmental Awareness in Public

This can be done through formal education system and institutions. This can effectively be done by using religious institutions and social media for this purpose.

For example, Sweden is well-known for its environmental education curriculum in schools which emphasizes on sustainable practices and conservation efforts (The Economist, Sweden's Environmental Education Curriculum, August 2022).

Implementation of Environmental Commitments

Environment is a unanimous problem and it can never be solved without cooperation of states on environmental commitments. For instance, Kyoto Protocol mainly failed due to lack of cooperation among states for the sake of environment. But still this terrible environmental chaos can be mitigated by implemental environmental commitments like **Our Common Report, Agenda-21** etc.

i. Improving the role of Environmental Institutions

Although environment is degrading rapidly, but still it is not an irreversible condition. By improving the role of environmental institutions that can strictly implement environmental commitments all these issues can be handled. These institutions should be strengthened to form legislation for conserving non-renewable resources. **For instance,** in Iceland an act is passed that guarantees origin of electricity from renewable energy sources (**Electricity Act 32/48**).

j- Improving International Cooperation among States

Environmental issues can be tackled by improving technical, scientific and financial cooperation among states. IMF, World Bank and other Monetary bodies like ADB should provide financial assistance to developing countries for over-coming their environmental issues. Its recent and best example is of COP-28 that represents a pivotal moment for global (clim^x) cooperation on climate.

CONCLUDING THOUGHTS

Although an unprecedented environmental damage has occurred, but still proper decision making can safeguard this environment for future generations. Each thoughtful decision made by decision-makers of the state contributes to preservation of planet's delicate ecosystem. By embracing environment friendly technologies, the way for clean and brighter future can be paved.

c -
concise your conclusion
try adding flowcharts wherever required
you have analysed it in a really good manner
try to manage your time
you have got potential
good luck!