

Disaster Management : Global Warming

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ABSTRACT

Global warming can be termed as the changes in the patterns of global temperature. These changes influence the intensity and the frequency of extreme environmental events, such as rainfalls, forest fires, hurricanes, heat waves, floods, droughts, and storms and in general the intensity of the overall seasons. It may be different for different countries in the world but more or less with the same disastrous impact and after effects. Global warming will not only affect the weather etc. it will also result in ecosystem degradation and reduction in food and water. Disaster can be defined as a sudden, catastrophic, tragic and unfortunate event. Due to the changes in climate in the recent decades it was sought to have a disaster management system. Disaster management is very important for the survival and reduction in the human or property losses due to the unforeseen-unfortunate events relating to the climatic changes. It will give plans and directions to survive in case of natural or man-made disasters and to curtail it in the minimum possible time. Disaster management activities are aimed to minimize loss of life and damage in the event of disaster. The best way for the disaster management to work is it should be coordinated between agencies at the national, regional and international levels.

Keywords : Global Warming, Managing Disasters, Disaster Management, Effects of Climate Change, Environmental Disaster.

INTRODUCTION

Global warming or climatic changes has emerged as one of the most significant global challenges of our time. It is caused by the emission of greenhouse gases (GHGs) into the atmosphere, primarily from human activities such as burning fossil fuels and deforestation. The consequences of climate change are far-reaching, affecting the environment, the economy, and human health and well-being. The most visible effects of global warming are natural disasters such as floods, droughts, and hurricanes, which have become more frequent and intense in recent years. For instance, drought frequently limits Australian wheat production, and the expected future increase in temperatures and rainfall variability will further challenge the productivity. Also, both hydropower

dams and global warming pose threats to freshwater fish diversity. While the extent of global warming may be reduced by a shift towards energy generation by large dams in order to reduce fossil-fuel use, such dams profoundly modify riverine habitats. Furthermore, the threats posed by dams and global warming will interact: for example, dams constrain range adjustments by fishes that might compensate for warming temperatures. Now Disaster management is a critical element in addressing the impact of climate change on the environment and human life. This paper aims to explore the relationship between global warming/ climate change and disaster management and the measures that can be taken to mitigate its effects.

THE ROLE OF DISASTER MANAGEMENT IN ADDRESSING GLOBAL WARMING:

Disaster management has a critical role to play in addressing the impact of global warming. Disaster management organizations can:

1. **Build resilience:** Disaster management organizations can help build resilience by developing early warning systems, emergency response plans, and disaster preparedness measures. These measures can help reduce the impact of natural disasters and improve disaster resilience. Disaster management organizations can work with governments and communities to develop climate-resilient infrastructure that can withstand the impact of natural disasters. This can include strengthening buildings, roads, and bridges, and building seawalls and other coastal defenses to protect against sea level rise and storm surges.
2. **Promote sustainable development:** Disaster management organizations can promote sustainable development practices such as renewable energy, conservation, and reforestation, which can reduce greenhouse gas emissions and mitigate the impact of climate change.
3. **Increase public awareness:** Disaster management organizations can play a vital role in increasing public awareness about the impact of climate change and the need for action. By educating the public about the risks of natural disasters and the importance of sustainable practices, disaster management organizations can encourage individuals and communities to take action to reduce their carbon footprint and build disaster resilience.
4. **Advocate for policy change:** Disaster management organizations can advocate for policy change at the local, national, and international levels to address the impact of climate change on disaster management. This can include advocating for measures to reduce

greenhouse gas emissions, increase funding for disaster management, and support sustainable development practices.

5. **Integrating climate change considerations into risk assessments:** Disaster management organizations can incorporate climate change projections into their risk assessments to better understand the potential impact of future disasters. This can inform decisions about where to invest in disaster preparedness measures and what kind of infrastructure is needed to build resilience to natural disasters.
6. **Promoting sustainable land use practices:** Disaster management organizations can work with governments and communities to promote sustainable land use practices that reduce the risk of natural disasters. This can include promoting reforestation, reducing deforestation, and promoting sustainable agriculture practices that reduce soil erosion and prevent landslides.
7. **Supporting disaster risk reduction:** Disaster management organizations can support disaster risk reduction efforts by working with governments and communities to develop disaster risk reduction strategies that reduce the impact of natural disasters. This can include investing in disaster preparedness measures, promoting community-based disaster risk reduction, and supporting disaster risk financing mechanisms.

IMPACT OF GLOBAL WARMING ON DISASTER MANAGEMENT:

Global warming has had a significant impact on disaster management, making it more challenging to respond to natural disasters effectively. The increase in the frequency and intensity of natural disasters has strained the resources of disaster management organizations and governments worldwide. The impacts of climate change on disaster management include:

1. Increased frequency and intensity of natural disasters: The rise in global temperatures has led to more frequent and severe natural disasters such as floods, droughts, and hurricanes. This has made it more difficult for disaster management organizations to respond effectively to disasters, resulting in greater loss of life and property.
2. Economic costs: The cost of natural disasters has increased significantly due to climate change, leading to a strain on government budgets and resources. The costs of recovery and rebuilding have also increased, putting a burden on local communities and economies.
3. Human health: Climate change has had significant impacts on human health, leading to an increase in respiratory diseases and other illnesses. Natural disasters exacerbate these health impacts by disrupting health services and increasing the risk of infectious diseases.

MEASURES TO MITIGATE THE IMPACT OF GLOBAL WARMING ON DISASTER MANAGEMENT:

To mitigate the impact of climate change on disaster management, several measures can be taken. These include:

1. Strengthening disaster management organizations: Disaster management organizations must be adequately funded and equipped to respond effectively to natural disasters. Governments must also invest in building the capacity of disaster management organizations to respond to the changing climate.
2. Investing in disaster preparedness: Investing in disaster preparedness measures such as early warning systems, emergency shelters, and evacuation plans can save lives and reduce the economic impact of disasters.
3. Promoting sustainable development: Sustainable development practices such as renewable

energy, conservation, and reforestation can reduce greenhouse gas emissions, mitigate the impact of climate change, and improve disaster resilience.

4. International cooperation: International cooperation is critical in addressing the impact of climate change on disaster management. Countries must work together to develop effective disaster management strategies and share best practices to reduce the impact of natural disasters.

WHAT WE CAN DO:

1. Change/ Replace: Replacing one regular light bulb with a compact LED bulb will save several pounds of carbon dioxide a year.
2. Resist Single drives: Walk, bike, carpool or take mass transit more often. One pound of carbon dioxide for every mile will be saved.
3. Always Recycle: Pounds of carbon dioxide per year will be saved by recycling just half of the household waste.
4. Check Tyre Pressures regularly: Keeping tyres inflated properly can improve mileage by more than 5 percent. Every Liter of Petrol or diesel saved keeps several pounds of carbon dioxide out of the atmosphere.
5. Use moderate hot water: It takes a lot of energy to heat water. Use lesser quantities of hot water by taking shorter showers and washing your clothes in cold or warm instead of hot water.
6. Products with excessive packaging: You can save several pounds of carbon dioxide if you reduce your garbage by 50 percent.
7. Air conditioners and Room heaters: Moving your thermostat down just 2 degrees in winter and up 2 degrees in summer could save pounds of carbon dioxide a year.
8. Plant a tree: A single tree may absorb one ton of carbon dioxide over its lifetime.
9. Turn off devices: Simply turning off your television, DVD player, stereo, and computer, when you're not

using them, will save you thousands of pounds of carbon dioxide a year.

10. Ending or limiting our dependency on fossil fuels: The most important thing we can do is to reduce our dependency on consumption of fossil fuels like burning coal, oil and natural gas in our houses and industrial processes. This not only increases pollution it also impacts ecology and human health. We must replace coal, oil, and gas with renewable and efficient energy sources.

11. Renewable energy: Renewable energy, often referred to as clean energy, comes from natural sources or processes that are constantly replenished. For example, sunlight and wind, even if their availability depends on time and weather.

12. Solar energy: Solar energy is produced when light from the sun is absorbed by photovoltaic cells and turned directly into electricity. The solar panels that you may have seen on rooftops or at ground level are made up of many of these cells working together.

13. Wind energy: Unlike solar panels, which convert the sun's energy directly into electricity, wind turbines produce electricity more conventionally: wind turns the blades of a turbine, which spin a generator.

INTERNATIONAL GOVERNANCE

Sendai Framework for Disaster Risk Reduction

The Sendai Framework places the responsibility of reducing disaster risk primarily on federal governments through seven targets divided into two categories: substantial reductions and increases. It aims to reduce disaster mortality, people affected, economic loss, and damage to infrastructure and services. The remaining targets work to increase access to warning systems, aid to developing countries, and the number of countries with disaster risk reduction strategies.

The framework also details four priorities for action to be accomplished by 2030:

1. Understanding disaster risk
2. Strengthening disaster risk governance

3. Investing in disaster risk reduction

4. Enhancing disaster preparedness

These priorities acknowledge current shortcomings of DRR efforts, such as the lack of communication between local and federal governments and private programs, as well inequities faced by women and people with disabilities in the realm of disaster response.

GLOBAL FACILITY FOR DISASTER REDUCTION AND RECOVERY:

The Global Facility for Disaster Reduction and Recovery (GFDRR) is a global partnership program established on September 29, 2006, to support developing countries on disaster risk reduction and climate change adaptation. The facility is administered by the World Bank and governed by a Consultative Group including the World Bank Group, the United Nations Office for Disaster Risk Reduction (UNDRR) and several other international organizations and countries

CONCLUSION

Climate change is a significant global challenge that has had a significant impact on disaster management. The frequency and intensity of natural disasters have increased, putting a strain on disaster management organizations and governments worldwide. Mitigating the impact of climate change on disaster management requires a comprehensive and integrated approach that includes investing in disaster preparedness measures, promoting sustainable development practices, and increasing international cooperation. Disaster management organizations have a critical role to play in addressing the impact of climate change, building disaster resilience, and advocating for policy change to address this global challenge. While disaster management plays a crucial role in addressing the impact of climate change, it is essential to recognize that disaster management alone cannot solve this global challenge. Reducing greenhouse gas emissions is critical to mitigating the impact of climate change.

Governments must take action to reduce their carbon footprint by investing in renewable energy, promoting energy efficiency, and reducing deforestation. The private sector also has a critical role to play in reducing greenhouse gas emissions by investing in sustainable practices and technologies.

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