

Implementation of Ethical Echo System to Prevent and Overcome Crisis like Covid-19

Dr. Giriraj Kiradoo

Associate Professor-Department of Management & Technology
Govt. Engineering College, Bikaner, Bikaner, Rajasthan, India

ABSTRACT

Background -The main purpose of this paper is to focus on identifying the significance of ethical ecosystem in ensuring that crisis like Covid-19 could be effectively dealt or prevented in future. An ethical ecosystem is formed with the contribution of different individuals, groups, organisations and institutions that collaboratively work to protect the environment and promote sustainable use of resources.

Materials and methods-The qualitative research of the scientists, doctors and other knowledgeable persons has been used which provides reliable source of information about the disease and its link with the management of ecology over the globe.

Results-Findings of this research helped in identifying the significant role is being played by different national and international industries and organisations for overcoming the Corona pandemic. Findings of this paper informed that ethical ecosystem management is an important approach that ensures the appropriate and sustainable use of the ecosystem and environment.

Conclusion-The problem of Corona pandemic that started from China, spread throughout the world and raised various questions about the ethics of humans actions towards nature and environment. This paper concludes that different industries, sectors and institutions that work within the wider society have their own ethical responsibilities towards the broader ecosystem. Therefore, the ethical actions that are currently being taken by different organisations around the world could be a significant example for future approaches of ethical ecosystem management.

Keywords- Covid-19, Ecological balance, human disease, WHO, IHR, ethical practices

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1. INTRODUCTION

1.1 Rationale-

Indian philosophy and thinking are the wonderful science of human welfare and the art of peaceful living. Indian Vedas, Puranas and Upanishads mention the oldest ecosystem model of the world with an emphasis on harmonious coordination of men, nature and animals. These researches and recommendations of Indian mystics are very relevant in the present context. This concept is a proponent of the principle that development should always be meaningful so that peace prevails in the world. The development that will eventually result in disasters or epidemics is not appreciable. The Indian culture, which considers the whole world to be a single family, always prays for all to be happy, healthy and stay away from sorrows. A number of sources for

spiritual peace and external peace are found here, whose essence is a lifestyle based on moral values.

In order to establish peace, it has been imposed on human beings to discharge moral relations with the five elements of nature i.e. earth, water, fire, sky and air, as well as tree plants and animals. Nature has given generous reserves of various resources for the peaceful discharge of humans and animals. But the so-called civilized and scientific lifestyle of mankind has heavily exploited and polluted the natural resources, and also tortured animals. Today's human society itself is getting disturbed by neglecting and hating nature and animals.

The Indian Ecosystem Model believes that the main causes of disasters are conflicts in the mutual interests of men, nature and animals. The corona virus disease (COVID-19), which took the form of a global pandemic, is also the cause of this imbalance somewhere. Human beings in the race to get ahead of nature, today have been forced to sit in hiding in the house. The existence of the entire human society is in danger. This review paper does not use any information and data related to the emergence, development and spread of corona virus disease which are unsubstantiated and indefinite. But in order to control the catastrophic situation arising out of this pandemic and not to be recursive in future, an ecosystem model which is full of morality is being described. This paper will focus on discussing the various aspects of ethics that were important for ecosystem management in order to prevent such pandemics.

1.2 Research questions-

- Is it possible to cure the spread of Covid-19 by maintaining an ethical ecosystem?
- What are the ethical steps that can be taken by various institutions and bodies to curb the growth of disease?

1.3 Objectives of the Study

- To determine the role of ecological balance in the growth of Covid-19 disease.
- To list out the importance of ecological balance and ethics in a country
- To enumerate the roles of government, hospitals and the other authorities in managing healthy environment.

2. RESEARCH METHODOLOGY

The qualitative research is based on the study of data collected through the secondary sources of data collection. The use of existing literature provides proper survey of information and determining the area of link between spread of disease and the ecological balance of environment. The researcher uses the books and journal of the existing literature to find out more on the research topic.

LITERATURE REVIEW

3. THE CONCEPT, ROLE OF ECOSYSTEM AND MANAGEMENT OF BALANCE IN THE GLOBAL ENVIRONMENT

3.1 Concept of Ecosystem

Over the period of last few decades, scholars have placed a significant focus on developing a new grammar for studying, understanding and managing the ecosystem. The term 'ecology' was developed in the 19th century by the British biologist Sir Arthur Tansley. That was the time when ecology developed as the science and as a separate discipline, which was specifically based on

the natural history. The present report focuses on the role of ecology in the spread of Covid-19 disease. Study of ecosystem and ecology soon moved beyond observing plants and animals. Ecologists began to use different approaches, such as modelling, experimentation and developing scientific theories that could be used for explaining different interactions between environment and organisms.

Humans are also the part of the natural world and their existence completely dependence on the ecosystem and ecological processes. Such ecological process involve the cycle of elements and water, maintenance of a stable climate, atmosphere and hydrological conditions, and a continuous focus on production of food products and many other services and products that allow the continuous existence of the humans and contribute towards maintaining their well-being. Functions of the Ecosystem are considered as the result of accumulations between plants and animals that interact with each other and with various other physical mechanisms of the environment.

3.2 Ecosystem management

Ecosystem management is the process of maintaining and preserving the natural function of the Ecosystem. It can be referred as the attempt to regulate the use of ecosystem and using it for the benefits of all organisms. Till the time essential functions of the ecosystem are maintained and managed, their use would be sustainable for the humans and in absence of such approach continuous development of human functions will be hampered. One of the most significant examples of unsustainable use of ecosystem is COVID 19 (Corona Virus Disease 2019). Spread of this pandemic is the most recent example of unregulated and unethical human activities and failure of the various ethical approaches to protect the natural ecosystem.

Ecosystem management has been identified as a different approach which varies from traditional natural resource management in three different ways (Folke et al, 2004). Firstly ecosystem management is based on the assumption that all the components that form the ecosystem have their own value, rather than focusing on the protection or conservation of few or single species (Burton, 2005). Secondly, it places priority on inter-generational sustainability of the entire functions of ecosystem, rather than just focusing on the management goals. For example, rather than just focusing on the management goals of harvesting and using natural resources, ecosystem management places focus all processes (Burton, 2005). Thirdly, humans are also identified as the significant part of the entire ecosystem and they have an active role to play “in regulating disturbance and restoring ecosystem composition and function” (Burton, 2005). Therefore, Ecosystem management is an active process, and not a passive process.

3.3 The process of ecosystem management

Ecosystem management consists of all the policies, regulations, legislations and practices that are applied for managing structure, composition, productivity and integrity of the ecosystem (Grumbine, 1994). A holistic ecosystem management approach is based on considering various aspects that could have considerable influence on the ecosystem, rather than focusing on a single component that is affecting ecosystem (Burton, 2005). Studies have also informed that the term ‘ecosystem management’ is associated with recognising the need of caring for the land and land resources, focusing on long term conservation of natural resources, valuing the biodiversity on earth and having a clear perspective towards what includes a healthy and sustainable ecosystem (Burton, 2005; Grumbine, 1994).

Ecosystem management is not a new concept as in past decades various studies have been conducted for understanding such form of management approach for protecting environment from the negative human activities (Hourdequin, 2017). For this form of management, different policies, regulations and legislations have been developed to protect the environment from degradation and in last 20 years number of attempts have been made for promoting sustainable development practices for ecosystem management (Hourdequin, 2017; DeFries&Nagendra, 2017). For example, one of the earliest policies implemented for sustainable ecosystem management was World Conservation Strategy 1980 (IUCN, 2017).

3.4 The role of sustainable ecosystem management

The attempt for sustainable management was done through the World Commission on Environment and Development in its Agenda 21 (1992), which focused on defining the essential element of the environment, constraints of using different aspects of ecosystem and also proposed an approach that required to identification and use of alternatives “*to determine how ecosystem products and services may benefit people without jeopardizing the functional integrity of the systems concerned*” (Pirot, Meynell, & Elder, 2000, p. 2). The United Nations Convention on Biological Diversity (1992) also focused on ecosystem-based management approach that informed about the ecosystem and natural habitat management. This approach also identified that richness and sustainability of ecosystem is very important for the sustainable existence of the human race.

4. THE ROLE OF GOVERNMENT AND THE ETHICAL STANDARDS FOLLOWED TO ENSURE STOP OF SPREADING DISEASE

4.1 Role of government

The government is responsible for providing necessary directions on the improvement of health facilities and ethical practices by the doctors and other responsible people to fight the situation and bring improvement to the health infrastructure. The government is coordinating activities at the global level to bring necessary set of actions that allow effectiveness in the lives of public (Lin et.al, 2020). The government has taken strong measures to contain the spread of disease through a restriction on the modes of transpiration and observation on the movement of people from place to another (Stoecklin et al., 2020). The strategies have been made in relation to the process of managing risk through proper communication and handling of complexity of the situation.

4.2 Role of WHO authorities

It was on the 22nd of January 2020 that proper steps were taken to fight against the pandemic. The legal department of the WHO provided a brief structure of the legal compliances, ethical standards and the procedure for managing the situation of risk. The member countries were asked to follow the ethical standard of confidentiality and provide detail of the professional, financial and other connection so that interest could be ascertained for effective decisions. The government has been directed to properly communicate with the World Health Organization through International Health Regulation (IHR) so that any new report supports in taking ethical measures of containment.

5. MANAGING THE SPREAD OF DISEASE BY VARIOUS INSTITUTIONS AND AUTHORITIES OVER THE GLOBE

5.1 Role of health care institutions

The origin of virus is directly associated with the changes in the ecological balance between human and animal life. The spreading of the diseases is to be contained through a restriction on the Human to human transmission by ensuring a reduction in the close contact between the workers and healthcare officials so that transmission can be prevented. The health care and medical institutions have taken proper measures to control the spread of disease and its impact on the social and economic development of countries. The ethical practices adopted by the medical health institutions for the containment of the virus spread involve a series of measures (Sohrabi et.al, 2020).

The countries have prepared proper isolation centres and wards that are responsible for speedy disposal of cases of patients dealing with this virus. This is done in regards to the ethical steps of preventing the spread. The animal sources of transmission have been identified through proper research activity so that the spread can be minimized. The medical institutions and high scholar doctors are continuously taking proper measures to develop necessary vaccines for fighting the disease (Chen et.al, 2020). There is proper communication taking place between the health institutions to communicate necessary details so that many complex problems are solved. The medical houses are trying to curb the social and economic impact of the problem through partnership at various levels and sectors.

5.2 Role of transport industry

The transport industry and the supply chain department are also taking proper measures according to the instructions of WHO to contain the spread of disease. The international traffic has been slowed down after collecting necessary passenger information so that no foreign spread of disease can be traced. This was done to restrict the spread of disease to the non affected parts of the country. This is an ethical step taken by the WHO and the transport department to ensure that there is no spread of the COVID-19 (Sohrabi et.al, 2020). This is done to ensure that public risk is eliminated through proper set of restrictions. The supply chain department is working effectively to ensure that no person is affected in terms of health due to lack of supply of necessities.

Transport industry also has a crucial role to play in the supply of goods, sanitizers, medicines and medical devices which are being required in higher number, due to Covid-19 crisis. European Sea Ports Organisation had also developed the Slogan “Transport keeps us going” for emphasising on the significant role transport is playing in the Corona crisis (ESPO, 2020). Transport and logistics around the world are critical supply of goods by enhancing and expanding the transport infrastructure. Logistics and transport measures are also taken on European Union (EU) -level and member state governments are being coordinated on the basis European Commission’s guidelines on border management. EU member states also enabled smoother border crossing for enabling freight transport (ESPO, 2020).

5.3 Role of supply chain department

The supply chain department has planned a series of significant steps to influence many companies to bring a restructuring on the modes of supply chain and its ethical practices. The

spread of disease in China has led to a disruption of major industries due to lack of supply of raw materials. The companies have initiated with some ethical practices of proper training and communication with the employees in many organizations about the different methods of conducting business activities. The employees have been trained about the various symptoms that will help in identifying the spread of disease and are provided with instructions to ensure that there is no further spread (Nakazawa et.al, 2020).

5.4 The role of IT department and technology

The IT systems have been effectively updated and revised to ensure that supply chain can be well managed even in situations of worse conditions. These are the set of ethical codes practiced by the organizations in order to ensure survival in this situation of spread of deadly virus (Van Bavel et.al, 2020). In this situation of spread of disease, proper steps are taken by the use of robotics, high technology, 5G networking to minimize the spread and also ensure proper supply among the communities. There is an optimization of supply chain so that proper planning about the global scenario ensures safety and fulfilment of public needs even in this worse situation of pandemic.

The transport department and the supply chain are playing an integral role in ensuring ethical practices of supplying material among the communities to meet their daily requirements. There are proper channels of communication to ensure availability of materials among the customers (O'Sullivan, 2020). IT companies have significantly focused on developing an ethical framework of their working environment in order to support people around the world. Google has also been supporting its remote workers and other workers to remain safe and productive, by encouraging 'at-home' workforce (Kurian, 2020). Google is also supporting many other companies all over the world, for example, The MACIF Group, which is a French mutual insurance provider is using different Google tools, for online meetings and developing collaborative virtual rooms. Therefore, companies are doing their part in ensuring an ethical approach to remain safe and responsive for their service users (Kurian, 2020).

6. THE ETHICAL STEPS TAKEN BY THE SOCIAL MEDIA AND MEDIA HOUSES IN MANAGING THE SPREAD OF DISEASE

6.1 The ethical steps taken by social media

The social platforms people are getting to know about the disease such as information about from where this disease came from, what is the current situation now and how people are fighting against this disease. In the middle of this increasing corona disease, the most important role is played by social media. Through twitter, Facebook and other sites people are getting relevant about their everyday lives and it also works as a source of entertainment between friends, families and other people (Picard et.al, 2014). As of now people have become fully isolated physically, web, social media, and media houses are only the ones which are providing valuable information around the globe from time to time. Information through social media gains the most of the review at this time.

6.2 Role played by social media

Social media is one of the major sources of technology in this crisis. Not physically but through such platforms public can get the knowledge about the current situation of this nation and how we can curb this disease. Tweets and Facebook posts provide all the necessary sequence about every shot detail about this pandemic. By providing reliable information through these media,

panic and fear is being removed from the minds of the people and they are being calm in this situation. The social media is adopting ethical measures to provide reliable information among the public through various online channel. It is also focusing on sharing of supportive remedies to restrict the contamination and impact of spread of COVID -19. This is among one of the most ethical practices undertaken by the social media to ensure safety of people and community (Soulé et.al, 2005).

The most popular social media platform being used for real-time information is Twitter, which is leaving no stone unturned to fulfil their part in the time of crisis. Twitter is using different hash tags, such as '#coronavirus' to provide the Covid-19 related news or update in every 45 millisecond (Josephson & Lambe, 2020). Twitter is working as the powerful through which people and organisations are communicating with their customers, employees and to the wider ecosystem in order to continue with their services, while ensuring everyone's safety (Josephson & Lambe, 2020). Another significant example of the social media efforts is Facebook, which is making significant efforts by displaying the safety message on their front page and by making efforts for curbing misinformation. For example, "anyone who searches for information related to the virus on Facebook is shown educational pop-ups on top of search results connecting them to expert health organisations, including the World Health Organization (WHO)"

6.3 Increasing role of media houses

Media house is playing a major role in curbing this disease by providing reliable information through various news channels and reporters. Fake information from various areas and site create panic and fear in the mind of the people. Media house like various channels provides accurate and correct information about the ongoing disease and helps to curb this disease as well (Barthel et.al, 2010). Collection of date on large scale through media also plays an essential role in curbing this pandemic. TV is the most reliable way in gathering information from all over the world about this disease. Such platforms help people in collecting information and providing those opportunities to curb this disease by using various methods and doing what is best for the nation.

7. THE ETHICAL STEPS TAKEN BY THE CITIZENS OF COUNTRY IN ENSURING SAFETY AND SECURITY TO ENSURE ECOLOGICAL BALANCE

The citizens of every country are trying to maintain safety and security in nation during this crucial time of this ongoing pandemic. The society abides by the norms and decisions of and creating the government playing their important role in restricting the spread of this disease. The major role played by the citizens in curbing this disease is managing the protocols formulated by the government to stay indoors. It is the ethical responsibility of the citizens to abide by the norms stipulated by the government so that the objective of preventing spread can be attained effectively (O'Sullivan, 2010).

Government has issued directives my making everyone aware of not spreading fake information through various media houses. By taking such actions, they are performing their role in getting rid of such a deadly disease. From various countries media gather information and make it to the knowledge of the people and make them aware about the ongoing sequence about this disease. By throwing light on such situation, media is making aware and asking them to take correct measures and action to get relieve from this contagious disease (Knight et.al, 1998).

8. THE CHANGING ROLE OF SOCIAL ENTREPRENEUR IN MANAGING THE ECOLOGICAL BALANCE AND CREATING SUSTAINABLE ENVIRONMENT

The social entrepreneurs acts as a catalyst in bringing change in the society and ensuring ethical preparedness among the people to get cured from the impact of spreading virus. The non profit organizations have been taking necessary steps of educating public and tailoring their skills to fight with the situation. They are investing huge capital in order to ensure proper supply of water and other resources to the deprived section of the society. The social entrepreneurs are also investing essential requirements for the growth of agricultural sector so that the society is not deprived of basic necessities to life (Zahra et.al, 2009).

This practice is done to ensure ethical disciple in society so that the tough situation can be well managed. The entrepreneurs are also making necessary amount of investment of funds to ensure proper facilities in the country and infrastructure to provide proper facilities and care to the already infected individuals. The social entrepreneurs are striving hard to meet the pace of terror caused in the society due to the problem (Van Bavel et.al, 2020). They ensure that the resources are used in setting up proper channels of communication so that the people dealing with the issue can easily call up for emergency and their voices can be heard.

9. RESULTS

In this world, the harmonious coordination between nature, mankind and animals and a sense of compassion towards each other are very important. These three components are very sensitive about their jurisdiction and existence. The mutual coordination between them is nothing less than a boon. Conversely, if there is an imbalance between these components, then any component becomes an instrument of disaster to save its existence. As a result there is turbulence all around.

Many such instances come in experience in which we find that natural disasters and epidemics have made many civilizations and species extinct. The unethical conduct of a few people and organizations today has put the entire human race on the sacrificial path to fight a mysterious disease. The man who reached the planet Moon and Mars, has hidden himself in his house. Huge armies, advanced combat aircraft and modern weapons are losing their importance. Traffic is closed. Ships have stood at ports. Long queues of airplanes are seen on land. Advanced institutes of science and technology have failed to find a cure. Virology scientists are unable to find a concrete solution. Physicians from all over the world are compelled to treat with the trial and error method. Life is turbulent and every moment is afraid of death. The system of development has stalled. Poor humans have become dependent on begging for their daily needs. The people of middle income group are facing fear of unemployment. The capital formation cycle has stopped. New start-up entrepreneurs are feeling depressed due to the financial crisis. The world's powerful economies are suffocating. The huge pile of corpses has forced the human society to rethink, what progress and scientific achievements were they claiming?

However, once again some warriors have come forward, who are trying their best to handle the situation using force, intelligence and knowledge. Rising above personal selfishness, these Corona warriors are risking their lives to save humanity. Governments, World Health Organization, Physicians, Pharma Companies, Virology Lab, NGOs, Police, Army, Social Entrepreneurs, Donors, Supply Chain Management Companies, Social Media, Print Media, Citizen Organizations, Industrial Houses, Cinema Artists, Singers, Players, Professors etc. have become Corona warriors. In the war against Corona, the first attempt is to break its transition chain, for which people are being strictly adhered to Stay Home Stay Safe. Organized efforts are

being made by creating a strategy on the principle of Triple T i.e. Trace, Test and Treat. Good results are being seen in Asian countries whose experiences are being shared with European countries. All these Corona warriors have not lost courage even after not getting authentic treatment. There are also cases in many countries where doctors, health workers, social workers, police personnel and attendants have died due to infection while saving the lives of people. Some such cases have also come to light in India in which some people have committed suicide due to fear of corona and some people are hiding due to fear. As a result, governments and NGOs are motivating people through effective methods of rescue rather than fear.

The testing labs have been continuously involved in surveying from the data collected about the pandemic and determining the features and characteristics of the spread of disease. They are working hard to retain back the ecological balance through proper surveillance, research on its impact on the community, and forming protocols for health institutions to ensure that the disease is not spread further more. Different sectors that contributed towards the economy have also played their role in managing and supporting the ethical ecosystem. However, the most significant role that IT companies have played is by bringing a balance between their practice and service delivery. IT companies are providing work-from-home to their employees, in order to contribute towards continuing the service system even during the time of unprecedented crisis. This had been a significant step in providing a continuous support to the economy of the country and the home schedules still stand the chance of being the active part of the gig economy.

This is the reason that despite of the national and local transports in most of the countries are closed, yet the Governments have not completely closed the national and international cargos, so the important and necessary medications and other things could be transported to the countries in need. Therefore, collaborative efforts are being done by the government and entire transport industry. Other sectors, such as the banking and insurance companies also contributed towards displaying an ethical approach in ensuring that their users are not affected by the lockdown.

The social media and media houses are continuously involved in ensuring proper stages of communication at various levels through ethical means to deliver right information among the public. This study identified different examples of Twitter and Facebook about how they displaying their ethical duty towards the wider ecosystem and ensuring the safety and well-being of all. This is done with respect to being a responsible citizen and playing a major part in preventing the spread of COVID -19 by communicating reliable information at each level of the society. It acts as a bureaucrat between the government and public to provide valuable information about this disease (Barthel et.al, 2020). This COVID -19 intends the decision making by ensuring that there is huge support given to the ethical values while showing care towards the adults. Social media on a big pace is helping the nation in getting all the information about this pandemic and also helping to take correct action at correct time without any delay.

Government by taking accurate decisions on the current scenario and providing measures through media is at its best. By performing all such roles, creating a sense of security among the nations, media had played an important role (Ethical issues in ecosystem, 2020). The companies are directed to plan for labour development and planning and reducing the range of supply of material so that speed can be ensured. A global planning is being conducted to provide regular supply of materials to various locations so that shortage is not faced by the countries (Sustainable development, 2020). The main resources in the situation of spread of disease is the availability for necessary medicines, mask and other equipment of sanitation at cost effective rates so that all the public can be protected with proper safety measures. It is the duty of major producing

industries to ensure proper production and sale at cost effective rates to ensure help in this situation of pandemic and global outbreak of disease.

CONCLUSION

There is no other way than to follow the high moral ethics so that we can manage the corona pandemic that has arisen due to unethical practices. The scientific achievements and inventions of the so-called civilized and advanced society seem to be dwarfed. Most of the countries of the world are coming together and emphasizing on organized efforts, following the Indian thinking of treating the world as one family. Corona warriors of various fields are making every effort to save human beings by acting in a spirit of benevolence. New protocols will have to be set to deal with the post-corona situation and to ensure that such epidemics do not recur in future. All the nations of the world will have to be determined that they will follow high ethics and give importance to world welfare and peace. Ethics-based ecosystem between humans, nature and animals will have to be re-established. The lock down decision is proving to be an effective effort to break the corona infection chain. Implementation of trace, test and treat concept is getting positive results. The news of a decrease in the death rate of people dying due to the corona is an indication that our ethics-based efforts are succeeding and we are on the path of victory.

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