

Green Governance-A Stepping stone for Sustainable development

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ABSTRACT

Environmental awareness exists since the inception of this planet, that has always been given significance as seen in the worship and fear of the nature. There is a mention of components of cosmic universe (panch mahabhoots) that is air, water, fire, earth and space in the ancient texts, such as Atharveda, Yajurveda, Ramayana, Buddhist scriptures and Srimad Bhagavad-Gita. These cosmic constituents create and nurtures life, so is worshipped, feared and taken care of, so that there is no harm to the human health. The aim was to preserve the nature for the well being and mental health of the mankind.

The paper brings to the limelight the care and reverence to the environment since ancient times, its massive exploitation since the industrial revolution and the need of green governance, due to ill effects of environmental damage like rise in blood cancer, heart and lung diseases, respiratory problems, complications of child birth and mental illness.

Companies and corporate organizations are now believing that their greed for more money and production has done more harm than benefits, in the form of global warming and environmental issues. The need of the hour is to promote green practices that can preserve natural resources, while production and consumption is taking place. The government in different countries have started policy initiatives since more than a decade to preserve the environment and realized that green gross national income is the difference between gross national income and loss of natural capital.. Although several initiatives have been taken in this direction, things are often easier said than done and many of those initiatives are seen to fail or not make much of a difference. However, some steps do lead to marginal results, but others are counterproductive. All they result is in to lead the green problem from one location to another and final to align with the demanding business goals. Only a systematic approach to manage an organization sustainably and cost-effectively can lead towards a Green Governance in the real sense. The organization should address the key areas in Green Governance and formulate a sound green strategy to manage its green initiatives.

Keywords: Green Governance, Green Initiatives, Sustainable Development

INTRODUCTION

Mankind has been exploiting nonrenewable resources for decades. The adverse impacts of humankind's squandering can be seen now in the contamination and degradation of the environment and its delicate ecosystem. The greenhouse gas emissions are threatening the planet and the very existence of humanity. It is critical to safeguarding the environment at the local, national, regional and global level (Bollier and Weston, 2013). Effective and just governance and control is required at all levels for environmental protection. The final objective is to work towards a clean and healthy environment, and it is known as green governance. The paper discusses the green governance, the different approaches to achieving green governance and the challenges ahead. There is a strong need to spread awareness about Green Governance and the need to drive towards overall sustainability with a systematic approach. Need and Importance of Green Governance.

Globalizations means an increase in the flow of people, good and ideas across international borders. These transnational flows necessitate higher cross-border cooperation (Green, 2013). The global expansions of markets have reorganized the power dynamics. It would be impossible to sustain human life on this planet without sound and stable ecosystems. Uncontrolled economic growths, globalization, continuous population and free markets have become politically acceptable, even if they continue to harm the ecosystems (Vasseur

et al. ,2017). Industrialization and rising consumption are seen to bring unanticipated environmental consequences. The multiplicity of human standpoints plus the complexity of ecosystems further complicate the linear approaches when understanding the interdependence between social and ecological organizations.

'Green governance' is a multidimensional scope of sustainable development that requires a strategic and participatory approach that encourage the sustainable management of natural resources, especially in developing countries (Pesqueux, 2017). Green governance supports global sustainability through the decentralization of both governmental and nongovernmental organizations and businesses through collaborations. Very little progress has been made towards sustainability (Jungah, 2012). Certainly, not all countries or cities have gone green, and this is because of the variation in local sustainability actions and differences in green governance policies. Green governance and related issues are fast gaining importance in the arena of social sciences. The concept of governance can be defined as any collective and purposive activities that ensure safety, prosperity, stability, and continuance of the sustainable development and go traditional hierarchical activity (Janis et al. ,2017). As the environmental issues are strongly connected to sustainability, the social and environmental domains are increasingly crucial to society. Effective green governance can establish corporate governance of common goals and objectives. The concept of green governance is not the responsibility of the states and governments, but require the contribution of public, private and non-governmental actors (Janis et al. ,2017).

It seems that humankind has paid attention to the social and economic needs to raise the quality of life but has ignored the environment altogether or has done little in this direction. The need of the present generation is to base its activities on sustainable development and without compromising on the benefits for future generations. The current generation must ensure that the technological development and the direction of investments are all in harmony and with no exploitation of environmental resources.

Vedic Significance of Environment

The Vedas are the true embodiments of protection and preservation of trees, water and nature. Plants are mothers and Goddesses. (Rig Veda Samhita X – 97 -4). Trees are homes and mansions. (Rig Veda Samhita X -97—5) God delight themselves in plants and waters. (Rig Veda Samhita X-70-4). Water, Plants, traditional medicines, Ayurveda, Yoga, Unani, Siddhi, Naturopathy and herbs existed, since the inception of this planet, that protects human body and soul. The ancient people fully relied on the forests and herbs to treat their illness and meditation or siddhi for mental healing and psychological well being. The Vedas have emphasized that the nature belongs to all the living organisms, so it is each one's responsibility to preserve it. Offerings are dedicated to the waters that flow, that flow around, that flow all about, that flow swiftly, that flow quickly, that flow widely, that flow terribly and to the waters of the earth, atmosphere and sky. (Taittiriya Samhita vii – 4 – 14). The environment consists of biotic (plants, animals) and abiotic (water, sunshine, air) elements. The environment assimilates wastes, provides scenery and aesthetic features that brings joy to life. The natural surroundings, waterfall, mountains, sunshine, air, forests and scenery promotes well being and psychological health. The five mahabhutas of the cosmic universe, that is the earth, water, fire, air and space, creates and nurtures life. The vedic sages feared and worshipped nature. In India, the environmental awareness is centuries old and is witnessed in Jain, Vedic and Buddhist scriptures. According to Warren Buffet, "someone is sitting in a shade today because someone has planted a tree, long time ago". Water cleanse humanity from the evil of pollution committed by it. (Atharveda Samhita –xii-2-40). Intergenerational equity has been emphasized since ancient times. One generation should handover to the next generation, an environment no less than what inherited. When the rate of extraction is more than the rate of regeneration, then the environment may not be able to perform its function of sustenance and so drying up of rivers due to pollution, depletion of ozone layer, loss of natural capital , global warming due to emission of green house gases and the planet comes to a threshold of environmental crisis. The exploitation of environment by excessive human activities like industrialization, deforestation, use of pesticides, etc has resulted in soil, air and water pollution. It affects our food chain. Respect and offerings to the nature is an ethical belief of almost all the religious practices. The Mahabharata, Ramayana, Vedas, Upanishads, Bhagavad Gita, Puranas and Smriti contain the earliest messages for preservation of environment and ecological balance

Different approaches to Green governance

Earth's climate challenges continue to grow at an alarming pace. Paris Agreement in 2016 has drawn the attention of different governments to global warming and how to curb carbon emissions. The focus is on formulating Green governance principles that can help achieve common goals at local, national and global levels (Janis et al. ,2017). There are both consensus and disagreements on the idea of Green governance and its principles. Intellectual debate is a must to dissolve the differences and develop a stronger consensus on green governance. When it comes to shared environmental concerns, it is essential to have joint and agreed goals. A multi-disciplinary approach can help focus on social and economic activities and environmental concerns as stated by Janis et al. (2017). Current lifestyles, over-consumption, rapid globalization, and technological advancements have all contributed to environmental degradation. All nations, both developed and developing need to make significant progress towards sustainability and develop sustainable development goals (Vasseur et al. ,2017). Economic, social, and environmental development are the three pillars of sustainability, and each holds equal importance. However, the environmental pillar has been ignored because of the current culture of consumerism. The environment needs to be understood in regarding sustainable usage of natural resources and the impact on climate change. It is wrong to assume that ecosystems, when disturbed, can take care of themselves.

There are interesting and alternative approaches that have emerged in recent years. The first approach is the intergenerational environmental right and the second is nature's environmental rights (Bollier and Weston, 2013). The first approach depends on the moral conscience while the second relies on playing the procedures together. Both these approaches are autonomous rights and can be asserted at the national and subnational levels. However, economic and political forces will continue to frustrate the environmental advocacy. Thus, there need to be new environmental rights and ecological governance based on those rights to promote Green governance. Only the right decision-making can incorporate the Green governance principles into actual practice and build the relationship between environmental governance and sustainable development. Today, there is a definite tension brewing between the social and economic development and the finite resources of the planet. Human beings continue to exploit and exhaust natural resources, as their developmental needs drive them. However, there is a need to stop and retrospect before going ahead. It is essential to remove undue environmental burdens on the planet to make it secure for future generations.

Environment Control Measures in India

The Constitution under Part IVA (Art 51A-Fundamental Duties) casts a duty on every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures. Further, the Constitution of India under Part IV (Art 48A-Directive Principles of State Policies) stipulates that the State shall endeavor to protect and improve the environment. The NGT was established on October 18, 2010 under the National Green Tribunal Act 2010, passed by the Central Government. The stated objective of the Central Government was to provide a specialized forum for effective and speedy disposal of cases pertaining to environment protection, conservation of forests and to safeguard the forests and wildlife of the country. Tamil Nadu has been a trendsetter in rain water harvesting, making it mandatory for all buildings as far back as 2003. Today, according to the State government website, out of the 23.92 lakh buildings in town Panchayats (government, residential, commercial and industrial), 22.94 lakh have rainwater harvesting facilities.

Principal Investigator of Karnataka State Council for Science and Technology, AR Shivakumar, recently told *The Hindu* that there are 20 lakh properties as per the city tax records, of which less than a lakh have RWH. Rainwater harvesting structures were made mandatory in Bengaluru in 2009. According to the NITI Aayog's water report, most States have a framework in place for rainwater harvesting in private and public buildings. The ones that don't are Odisha and Meghalaya. No data is available for Haryana, Uttarakhand, J&K and some of the north-eastern States.

As part of a unique initiative, all secondary schools—government and private—of five of the worst effected development blocks of the district including Baharia, Bahadurpur, Dhanupur, Pratappur and Chaka would now install rainwater harvesting systems on their campuses, said the officials. Similarly, government-run 56 primary and upper primary schools of Prayagraj city would also install the rainwater harvesting system on their campuses as part of a state education department's initiative, they added.

This initiative is being taken under the aegis of Union Ministry of Water Resources. A senior official in the ministry had recently visited Prayagraj and held a meeting with the district magistrate and other officials here, said District Inspector of Schools (DIOS) RN Vishwakarma.

He said all secondary schools of these five blocks of Prayagraj would be involved to stem the fall of underground water level through rain water harvesting. "Most of these 300-odd secondary schools have large campuses and rainwater harvesting systems here can play a vital role in preventing the rainwater from flowing off and seeping underground to replenish the underground water table," he explained. A special purpose vehicle is being set up jointly by NTPC and other Central Power Sector Undertakings as a Registered Society to take up afforestation and environmental measures to reduce the carbon dioxide in the atmosphere. NTPC organized a plantation drive to plant 1.45 crore trees. It was observed that the temperature around the Ramagundam Station of NTPC has come down by 30 Celsius due to the plantation drive by NTPC, as shown in a study by the National Remote Sensing Agency (NRSA Hyderabad). NTPC's 18 stations have been accredited with ISO: 14001 certifications, for environmental management systems and practices. NTPC is a member of Global Compact, a UN initiative for Corporate social responsibility. The coal-based power stations generate around 90 million tons of fly – ash per annum, so the Ministry of Power is taking steps to make the use of fly- ash products mandatory in road and bridge construction, building government offices etc. India has about 17% of the world's population, but it bears a frightening 20% of the global burden of diseases. (GBD).

Global Burden of Diseases is an indicator used by the experts to gauge the number of people dying prematurely due to a particular disease as well as the number of years spent by them in a state of disability owing to the disease. In India, more than half of Global Burden of Disease is accounted for by communicable diseases like diarrhea, malaria and Tuberculosis. Every year, around 5 lakh children die of water borne diseases in India alone.

Case study - Rotterdam city

A study of the governance capacity in Rotterdam city in Netherland looked into the ecosystem's governance processes and practices in a modern urban city. The aim was to measure the urban sustainability and resilience of the Rotterdam city (Frantzeskaki&Tilie, 2014). Rotterdam, despite being is one of the greenest cities faces climatic pressures. The city follows an adaptive approach to deal with socio-economic uncertainties and climate change pressures. The adaptive policies focus on climate resilience, attractiveness for businesses and energy security. As stated by Frantzeskaki&Tilie (2014), Rotterdam city was aware of the interrelated challenges. For example, there was a lack of an all-inclusive approach towards urban ecosystems and environmental quality. The green and blue areas were looked upon to be separate rather than interrelated and interdependent. There was a lack of connection between long-term and short-term vision, and there were limited ways of engaging with citizens. Over the years, Rotterdam has seen several projects and partnerships to aid the expertise of city planners in dealing with the multifaceted issues of green and blue organization in the urban cities. Strategic, operational, tactical, and reflexive governance levels promote urban sustainability and are interrelated (Frantzeskaki&Tilie, 2014). The adaptive capacity of the governance has protected the city and strengthened its ecosystem. The planning departments of the city are well equipped and involve the citizens to take initiatives to green the city. Sharing information between the different departmental teams has helped to address environmental quality | and exploit synergies between policies and plans. The policies and plans adapt and update with a policy renewal cycle. Green Governance with the right education and effective cooperation

Environmental governance systems require societal cooperation to safeguard the vital ecosystems of the planet. What is needed here is adaptive governance to adapt to the stressors like climate change which is

complex and unpredictable (DeCaro et al., 2017). Social reasoning and decision can strongly impact adaptive governance based on the capacity for cooperation and adaptation. Environmental regulations and governance procedures based on defective assumptions can hinder adaptive governance. UN Environment promotes environmental governance based on robust governance systems and smart environmental laws and policies. The purpose behind is to protect the environment and human rights by partnering with national governments, parliamentarians, and other policymakers. The citizens are allowed greater access to environmental information to enhance environmental cooperation at local, national and global levels (UN Environment, 2018). The development and implementation of environmental policies can promote environmental rights and green governance. For the development of self-organized groups and keep them motivated towards green governance, it is essential to take specific steps. For example, the participants must be made aware of the costs and benefits of actions in immediate and long-term. The individuals should realize the importance of resources over the long-term time horizon and raise the awareness with communications and by building trust (Janis et al., 2017). Social capital, leadership, and informal monitoring can help solve joint problems. Any common action develops stable collective management and builds trust.

Leadership in the general public is essential for giving direction for adaptation. Members of society must be aware of environmental issues, and only frank public education and advocacy can make society members more knowledgeable about adaptive governance. Constructive participation and better tolerance can get rid of the psychological barrier to adaptive governance (DeCaro et al., 2017). Community-based governance involving societal stakeholders can prepare the society and make it more aware of decision-making in social cognitive realm. Widespread education and news media can raise public awareness and create the right social climate supportive of environmental governance and adaptation. Green governance requires serious thoughts and reconsideration of the current political, economic and legal orders that are corrupted and geared towards capitalism. Hence, it will not be easy to make the change as there is a need to rethink and serve both tactical as well as moral commitments (Bollier and Weston, 2013). The fundamental problem is that conventional economics and the price system fail to see the long-term impacts. In order to make a real change, a flexible platform and an adequate legal framework are essential to promote a clean and healthy environment. It is essential to building a new example of ecological governance to save the planet. Human rights and environmental well-being are both important and essential for a safe, healthy and clean environment. Human rights encompass livelihood, culture, habitat, property, dignity, and equality. There is a need to reformulate and expand the current human rights and duties as they are still limited in their jurisdictional reach and legal recognition (Bollier and Weston, 2013). It is essential to reinvigorate the human's rights so that the environment is taken extra seriously. Unless the environmental governance is made free of unregulated capitalism, it would be difficult to gear human rights towards the environment as stated by Bollier and Weston (2013).

According to Janis et al. (2017), local level solutions initiatives by the local government can help shape effective governance principles and implement sustainable development. Local green governance can be more effective in the implementation of energy efficiency and renewable energy measures. Only active involvement of organized groups in collective and proper actions can promote effective involvement and encourage equitable and sustainable use of resources. The principles of human rights and environmental sustainability should be incorporated into the basic rules of governance (Janis et al., 2017). Environmental education is a relatively new field but an important one in green governance as it helps to raise people's knowledge and awareness regarding environmental protection and the related challenges. Thus, it motivates them to develop the necessary skills to address the challenges and remain motivated towards the commitments. Environmental education can help humans to understand how natural environments work and how human activities can disturb the natural environments (Janis et al., 2017). Humans can learn how they can change their behaviors to live sustainably and protect the ecosystems. Environmentalism is often used as an instrument for domination which may not be insightful of green movements as a whole. Thus, the environment can be used as a symbol for liberation or to strengthen democracy or, authoritarianism. It is also used to weaken neoliberalism or support it (Doyle & Doherty, 2006).

As asserted by Janis et al. (2017), environmental education for society situates practical and theoretical knowledge to encourage economic sustainability. Any decision-making process takes place within the environmental values and norms. Another vital component of environmental education is to develop a green infrastructure based on a deliberately planned system of both natural and semi-natural areas. The term “green infrastructure” is used for a system of green features that are unified and organized for added benefits. The focus is on the development and protection of networks of green, natural features with the aim of consolidating the features and their services. Green infrastructure connects different ecosystems and strengthens their relation to the local environment (Janis et al. ,2017). Education in green infrastructure can teach fundamental lessons on sustainability and resilience in cities. It can raise public education and awareness regarding green infrastructure and the related benefits. According to Vasseur et al. (2017), technology and innovation are considered to be a fix for environmental problems. However, new approaches are required to understand environmental problems and human demands on ecosystems. The truth is whiteout understanding and respecting the ecosystems; it is not possible to find practical solutions. Humankind has already exceeded immutable planetary boundaries, and there is little hope of protecting environmental systems.

Challenges for Green governance

It is indeed challenging to make a smooth transition to a green economy and lead to substantial changes. The local, state and global governments need to come together and make a political commitment based on the legal and regulatory foundation for green governance. This would be possible only with human capital formation, technological viability and implementation of financial instruments (Qalyoubi, 2012). As there is a deeper connection between economic, social and environmental aspects, it is essential to take those interconnections into consideration when working towards sustainable development. However, the coordination is too complex to coordinate social actors and make them work towards a joint objective (Padilha et al., 2013). Weak consensus and difficulties in coordinating make it difficult for green governance and sustainable development.

The value of ecosystem services needs to be understood and integrated in a systematic way within the spatial planning of a city. When the green structure of Berlin city was analyzed, it was found that the city faced key challenges in green governance in cities. For example, increasing development pressure and financial restraints, lack of proficiency and lower awareness of green benefits were the significant challenges (Kabisch, 2015). Insufficient communication further damaged the concept of ecosystem services. It is essential now to take immediate steps to make the transition in order to overcome the eco-crisis. According to Bollier and Weston (2013), only green technologies and economic reforms can improve the relationships with nature. However, in order to build green governance which is practical and effective, colossal efforts and cooperation are required at every step. The very first step is to develop respect for nature and share responsibility towards it. Transparency and accountability in all global and local activities can help build the integrity of the environment. There are new thoughts in economics and ecological management that encourage developments within the mainstream political economy. However, these efforts are still disparate and not connected to address the serious deficiencies (Bollier and Weston, 2013). There are still issues like rigidity, lack of transparency and corruption that are a hindrance within the new paradigm of ecological governance. The perceptions of a global green governance traverse with the politics of environmentalism politics. The politics of green concerns are entangled within an innumerable and different collective type. However, despite the diversity of responses, most environmental groups conclude their green concerns in a positive fashion (Doyle & Doherty, 2006). Global entities work to protect ecosystems through the erection of transnational systems of solidarity and thus expand the public sphere of green governance.

It is observed that private rule makers establish their own entrepreneurial authority by building on the existing rules. In a way, this practice diffuses the entrepreneurial authority as the older private standards get embedded with the new. For example, the International Organization for Standardization is the oldest standard-setting organization in the world (Green, 2013). There is no approved third party to verify compliance standards followed by private rule makers. What adds to the issuers is the growing complexity of governance among both public and private actors. The institutional complexity and density impact the

private authority at all times. There is a need for the private authority to move beyond its current boundaries and think more expansively about global public goods and climate change regime as asserted by Green (2013). According to Green (2013), private firms develop greener products based on their own rules and assert that their products are better for the environment. It remains to be seen if these rules conform to the international standards and environmental management schemes. Adaptive and flexible policies with regular renewals can help build stronger green governance.

CONCLUSION

It might seem that green governance may be impossible and seem like a utopian enterprise. However, one cannot ignore the reality of ever-expanding consumption on a global scale through ubiquitous market activity. The demands and pressure on nature are much higher, and it is essential for mankind to recognize those symptoms of an unsustainable cultural, socioeconomic and political systems it is developing. While the shift to green governance is the only answer, there are still significant challenges and many complexities. New energies and commitments need to replace the age-old archaic institutions with a new understanding of the environment and, economics. The global community is crossing planetary boundaries, and there are still no effective governance systems to deal with the current environmental problems. The global green governance is still disjointed and fragmented. There is a strong need for effective and adaptive governance policies to support the societal changes in the coming decades. Education, cooperation and active participation at local, national and global levels can help achieve the objectives towards Green Governance. Humanity cannot survive without a healthy ecosystem and healthy biosphere. The solution lies in Green governance when following social and economic development and without ignoring the environment.

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