CONTENTS

INDEX

Replenishing Indian Knowledge System (IKS) of Sustainable tribal farming practices for Inclusive conservation through National Educational Policy (NEP) 2020

Dr. Swagatam Das

Assistant Professor

Educational Studies, RNIASE, Cuttack, Odisha

ABSTRACT

National Education Policy (NEP) 2020 stresses upon appropriate integration of environmental awareness and sensitivity towards its conservation and sustainable development in school curricula. Some of the recommendations of NEP 2020, to make environment education an integral part of school curricula are, inclusion of environmental awareness including water and resource conservation; introduction of environmental education as a contemporary subject at relevant stages; incorporation of traditional Indian knowledge systems (IKS) and India's future aspirations with regard to environment; inculcation of respect for environment; appropriate integration of environmental awareness and sensitivity towards its conservation and sustainable development in all educational programmes.NEP(Para 4.27):"Knowledge of India" will include knowledge from ancient India and modern India, and a clear sense of India's future aspirations with regard to education, health, environment, etc. These elements will be incorporated in an accurate and scientific manner throughout the school curriculum wherever relevant; in particular, Indian Knowledge Systems, including tribal knowledge and indigenous and traditional ways of learning, will be covered and included in mathematics, astronomy, philosophy, yoga, architecture, medicine, agriculture, engineering, linguistics, literature, sports, games, as well as in governance, polity, conservation. Specific courses in tribal ethno-medicinal practices, forest management, traditional (organic) crop cultivation, natural farming, etc. will also be made available.

For generations, Indigenous Peoples and local communities around the world have cared for much of the world's most valuable forest, grassland,

---

savannah, wetland and ocean. Many of these 'territories of life' face destructive development, while indigenous cultures and traditions are also under threat. Their conservation depends on the recognition of Indigenous Peoples and local communities as their rightful custodians. We have much to learn from the unique knowledge, skills and values of Indigenous Peoples and local communities, as well as how they integrate conservation within their cultural and spiritual traditions. It's critical that they are able to safeguard their rights and to continue to govern their resources in ways that benefit them as well as nature. This is called 'inclusive conservation' – it's not just about supporting conservation by Indigenous Peoples and local communities but also recognizing they have the right to decide how to manage their territories - as well as when, how and if to involve others.

India comprising of 8.6% tribal population, has access to an enormous aggregate of indigenous knowledge which through proper recognition, adoption and mainstreaming has the potential to provide sustainable solutions to concerns related to global environmental problems. The paper demonstrates about the traditional knowledge systems of indigenous people regarding preservation of forests, seeds, water, biodiversity and environment as a whole. The paper also discusses about approaches towards social sustainability of Indigenous people in an inclusive setup.

Keywords: NEP 2020, Indian Knowledge system, Indigenous, Social Sustainability, Indigenous, Climate change, Conservation, Inclusion

INTRODUCTION

In very certain terms, the present human world is more closely integrated and becoming a global village. The process towards a uniform socio-cultural and economic order is simply termed as globalization. Globalization and free market are the basic principles dominant in this era. The issues of environment and sustainable resource management have also become important in the pace of globalization as the fast depletion of biodiversity and climate change have become common today. The issues of environment and sustainable natural resource management are very much linked with the original ethnic groups of the world. The indigenous people of the earth have been practicing the long cultural

traditions with sustainable economic pursuits, social control mechanisms, techniques of production while ensuring their resources for several generations as their livelihood. They do this by using their resources judiciously and ensuring their renewability. Both the culture and nature seem to have played selective and reciprocal roles in the life patterns of tribal people. They have developed a sustainable model in their total life perspective of the environment. Sustainability of environment is an end result of their hard and enduring labour.

But in the pace of globalization and the present economic order, we have disturbed the tribal culture and identity by removing their natural forests and converting it into economic plantation. The tribal people are hardly in a position to take advantage of new opportunities in the current economic patterns as they lack required skills, unaware and untouched with modern science, technology and education. Even though great strides have been made in the eradication of poverty, indigenous peoples are still among the poorest of the poor. Their traditional ways of life, livelihoods and practices are increasingly under threat owing to a range of factors, including lack of recognition and protection of their rights, exclusionary public policies and the impacts of climate change. A combination of such issues such as loss of access to traditional lands and natural resources, discrimination in the world of work, forced migration and poor access to opportunities have rendered them still more vulnerable in social and economic terms.

TRIBAL CULTURE

Tribe is a synonym for a self-reliant community, a tribe is a relatively closed society and its openness is inversely related to the extent of its self-sufficient pursuits. Many tribal communities in India have a strong emphasis on communal living and sharing resources. They live in close-knit communities and often make decisions collectively. Tribals have a strong connection with nature, with traditional beliefs and practices that revolve around the forests and animals. Tribals often have their own unique spiritual beliefs, which may involve the worship of ancestors, nature spirits, or deities. Tribals are known for their unique art forms, including pottery, weaving, and jewellery making. These crafts often have spiritual or cultural significance and are passed down through generations.

Tribal Lifestyle and Sustainable development

- Respect for the natural environment: Tribal traditional practices, such as using natural materials for housing, food, and medicine, and living in harmony with the cycles of nature.

- Conservation of natural resources: Sustainable practices involve limiting the use of resources to ensure their long-term availability, such as rotational farming or allowing forests to regenerate before harvesting timber.

- Community-based decision-making: Collective decision-making takes into account the needs of the community as a whole and ensures that decisions are made in a sustainable and equitable manner.

- Emphasis on intergenerational knowledge sharing: Passing down knowledge to the next generation includes traditional knowledge of the natural environment and sustainable practices for managing resources.

- Promotion of biodiversity: Tribals have developed practices to protect and promote diversity which includes traditional methods of agriculture, such as intercropping and seed-saving, as well as the protection of sacred sites that are important for the preservation of biodiversity.

- Use of renewable energy: Tribal communities have traditionally used renewable energy sources like wind, solar, and hydropower which can be expanded and modernized to provide clean energy for more people.

- Protection of water resources: Tribal communities rely on water resources and have developed practices that can help to ensure that water is available for future generations such as irrigation scheduling, rotational grazing, composting and mulching.

- Regenerative agriculture: tribal communities have been practicing regenerative agriculture for centuries, which involves practices like crop rotation, intercropping, and regenerating soils with organic matter. These practices help to sequester carbon in the soil, which can help to mitigate climate change.

- Vulnerability and challenges

- Land rights: Tribal communities have been displaced from their traditional lands due to industrialization, and mining which has resulted in the loss of

cultural identity, and social and economic marginalization.

- Discrimination: Tribal communities often face discrimination and prejudice from the dominant society, including limited access to education, healthcare, and other basic services.

- Climate change and environmental degradation: Climate Change, such as changes in rainfall patterns, increased frequency of natural disasters, loss of biodiversity, deforestation, pollution, and loss of habitat, has negatively impacted their traditional livelihoods and ways of life. The following graphical data revealed in the Western Odisha Survey Report by MASS NGO, 2020 depict that yearly income of tribal people of Rengali & Attabira block of Sambalpur and Bargargh district of Odisha respectively has fallen from 50% to 15% from the year 1960 to 2000.

Source: Western Odisha Survey Report by MASS NGO, 2020

- Socioeconomic marginalization: Many tribal communities have limited access to education, healthcare, and economic opportunities, which can result in poverty and social exclusion.

- Cultural assimilation: Many tribal communities face pressure to assimilate into the dominant culture, which can lead to the loss of traditional knowledge, language, and cultural practices.

- Lack of political representation: Tribal communities often lack political representation and may not have a voice in decision-making processes that affect their lives.

- Health challenges: Tribal communities often face challenges in accessing quality healthcare, which can result in higher rates of disease, malnutrition, and other health issues.

Transformation & Recognition

The tribals or any other community will have their own social system with the institution and cultural practices as guiding norms to conserve and use the natural resources depending upon the forest ecological structure and availability of the forest produces. The tribals were not accountable or answerable to any

agency for degradation of the forest at the Gram Sabha level. It has been the responsibility of the forest department to protect, conserve, and manage the forests. Any success or failure of the forest management has been owned by the forest department. Of course, the forest departments in many cases have involved the Community as partner, may be in the form of the Joint Forest Management against sharing of the benefit out of net profits or whatever term agreed upon. After the introduction of FRA and given the new responsibility to work under the guidance of Gram Sabha, it is natural that there will be some teething problem at the community level as well at the level of the government functionaries, forest department in particular.

The country, in any case, will have its public policy, Acts, and Rules. Similarly, the Community will have its own social system and regulatory mechanism as social institutions. Interestingly, both the government institutions and the social institution keep on evolving, the way ecosystem evolves. A society like a biological system is Self-Organizing System. If the two systems, Public or the Government Institution System and the Community Institutions, are compatible (Bilateral Matching Institution – Roy 1992) to evolve with the natural ecosystem, there will be "Coherent Governance" for sustainable development. However, we foresee many challenges and possible opportunities also with the advent of the FRA 2006 in the context of changing roles and responsibilities of the government and community institutions.

The government functionaries, forest department, in particular, have new roles to play in implementing the FRA and have to serve the objectives of the state and serve the Community following the guidelines of the Act and its rules, in whatever form prescribed. Changing position and adopting a different role by the forest functionaries requires a kind of "Business Process Re- Engineering (BPR)." The organizational structure, communication channel, and training for the new roles and responsibilities are the key factors for implementing change management for the implementation of FRA The new roles in the changing environment have to be designed in counseling with appropriate social and life skill development and adoption of digital and other relevant technology and built-in incentives for the prime movers. The Gram Sabha has to engage some ecologist

or forester to oversee the forest structure and system's health. In the forest officials' changing role, they have to get prepared for working as an expert with sound knowledge of monitoring of the Forest Ecosystem based on the scientific criteria and indicators. The changing role will demand new life skills and social skills to work as a counselor.

Approach towards Social Sustainability and Inclusion

Social sustainability is about inclusive and resilient societies where citizens have voice and governments respond. Social sustainability is also about expanding opportunities for all people today and tomorrow. Together with economic and environmental sustainability, it is critical for poverty-reduction and shared prosperity. Globalization and industrialization have uprooted villages, disrupted ancient cultures and forced Tribals to give up their traditional occupations. Many have become migrant wage workers in unorganized-sector units, living one meal at a time. Unbridled interaction between tribes and the general population has resulted in indigenous cultures being suppressed. Yet, a largely ameliorative approach of isolation amounts to the promotion of primitivism.

POLICY OF ISOLATION

The policy was given by Hutton and V. Elwin, who suggested that the tribals must be kept at a distance from the rest of the society and allow the tribal people to live their own life with happiness and freedom. They proposed a scheme of 'national park' for the tribal. The tribals would be in a position to maintain their independent identity. They would be free from the exploitation of outsiders. Those who support this approach say that sufficient time must be given to the tribals to assimilate themselves with the rest of the community.

POLICY OF ASSIMILATION

Assimilation is a process of adopting the ways of another culture and fully becoming a part of a different society. Those who adopted this policy wanted the assimilation of tribals into the main stream national life. According to this approach we cannot deal with tribal problems only on the basis of tribal culture

and life but by changing them into a new community with the rest of the people in India. The limitation of this approach is that complete assimilation is a difficult task because the tribals are not prepared to give up their traditional beliefs, practices and ideas.

PANCHSHEEL APPROACH

Panchsheel advocates non-imposition by encouraging self-governance. It affirms that the forest and land rights of Tribals must be protected. Further, it encourages inclusion of Tribals in administration and development. It also mandates that schemes and administrative policies meant for Tribal beneficiaries should not be cumbersome. Lastly, it requires that progress criteria for Tribals be based on life-quality indices, with an aim to strike a balance between isolationism and their assimilation. This is based on a dual approach of integration and development. The following five principles of this approach are:

- People should develop along the lines of their own genius, and the imposition of alien values should be avoided.
- Tribal rights in land and forest should be respected.
- Teams of tribals should be trained in the work of administration and development.
- Tribal areas should not be over-administered or overwhelmed with a multiplicity of schemes.
- Results should be judged not by statistics, or the amount of money spent, but by the human character that has evolved.
- Towards Sustainability: Apatani's Integrated Rice-Fish Cultivation

The Apatani's, one of the major ethnic groups of the eastern Himalayas, practice a distinctive form of agriculture where rice and fish are grown together. They are known for their effective traditional village council called bulyañ, which supervises, guides and have legal oversight over the activities of individuals that affect the community as a whole. Unlike the other tribes, they are non-nomadic in nature. The Apatanis are among the few tribes in the world who continue to worship nature. UNESCO has proposed the Apatani valley for inclusion as a World Heritage Site for its "extremely high productivity" and "unique" way of

preserving the ecology. Their wet rice cultivation system and their agriculture system are extensive even without the use of any farm animals or machines, so is their sustainable social forestry system. The permeability and water-retaining capacity of the clayey, loamy soil favor this unique farming technique. The stocked fish practically depend on the natural food sources of the rice fields and thus, farmers hardly need to use any supplementary fish feeds. The farmers sometimes use household and agricultural wastes and excreta of domestic animals like pigs, cows, and goats to make farming more sustainable and organic.

CONCLUSION

The call for a new humanism in the 21st century roots in the conviction that sustainable and holistic tribal development cannot be achieved by adopting any sectoral or piecemeal approaches of land management by Gram Sabha, ignoring the support of the government functionaries, forest department in particular. It requires an approach of Integrated Landscape Management for the agro forest mosaic landscape of the tribal habitat to understand the inter linkages of different components of the ecosystems and develop strategic actions to strengthen their inter linkages. The tribals generally are either smallholder farmers or landless and have feeble voice at the Gram Sabha where power lobby of vested interest are the decision makers. To ensure the livelihood security of the tribal smallholder farmers, their natural forest resource endowments have to be improved, and their livelihood opportunities need to be diversified. Such diversification provides the safety net to reduce risk from failure of any one of the activities due to various reasons including the erratic climatic conditions, provides opportunities for increasing the work participation rate of both men and women, and creates scope for family farming. Therefore, humanism today needs to be perceived as a collective effort that holds governments, civil society, the private sector and human individuals equally responsible to realize its values and to design creatively and implement a humanist approach to a sustainable society, based on economic, social and environmental development.

REFERENCE

- Bhattacharya, S., Pal, S., Kumar, D., & Sarkar, P. and Ghosh, S.K. (2021). NEO COLONISATION IN DECOLONISED INDIA: THE TRIBALREALITY. Vidyabharati International Interdisciplinary Research Journal (Special Issue), 78–91. https://www.researchgate.net/publication/358877953_NEO_COLONISATION_IN_DECOLONISED_INDIA_THE_TRIBAL_REALITY

- Bhagavatheeswaran L.et. al. (2016) the barrier and enablers to education among scheduled caste and scheduled tribe adolescent girls in northern Karnatka, south India: A Qualitative Study. International Journal of Educational Development. Vol 49, pp 262-270 (DOI: 10.1016/j.ijedudev.2016.04.004).

- Daripa S.K. (2017) tribal education in India: government initiative and challenges. International journal of research in social science. Vol-7, issue-10.

- Girase D. (2016) the problems of Indian tribal communities in current scenario. International journal of development research. Vol 66, issue 05, pp.7924-7927.

- Mondal P. 9 main problems faced by Indian tribals explained. Retrieved from www.yourarticlelibrary.com.

- Purshottam, Dhingra V. (2016) understanding the Indian tribal life and their issue. International journal of advanced research. Article DOI: 10; 21474/JARO/4837.

- Sterling, S.(2016). A Commentary on Education and Sustainable Development Goals. Journal of Education for Sustainable Development, 10(2), 208–213.https://doi.org/10.1177/0973408216661886

- UN Department of Economic and Social Affairs.(2015). Transforming our world: the 2030 Agenda for Sustainable Development. In UNO. https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981

- UNESCO. (2015). Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4. In UNESCO. https://doi.org/10.2307/25094797