

DOIs:10.2015/IJIRMF/202401036

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Research Paper / Article / Review

Community participation in wildlife conservation to promote environmental constitutionalism and sustainability in India

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Abstract: Wildlife conservation has gained global attention as a cardinal component of the ecosystem. India performs wildlife conservation through numerous laws and policies. This paper investigates the significance of community participation in protecting and improving wildlife resources under the Wildlife Protection Act-1972 (WPA) and the Panchayat Extension in Scheduled Areas Act-1996 (PESA). This paper has conducted a comparative study of eleven rights granted to PESA Panchayats within 108 PESA-covered districts across ten PESA-implementing Indian States. The significant right of PESA Panchayats to wildlife resources has been denied in all States viz. the right to prepare local plans including tribal sub-plans. Many other valuable rights of the PESA Panchayats have been recognized only in some States viz. right to ownership of MFP, control over Mines-Minerals, management of agro-product market and money-lending. The protected areas (PAs) of those States have done well in wildlife conservation where the PESA has been implemented giving rise to the right of the local community to use and maintain wildlife resources sustainably. The current study makes a valuable empirical contribution to wildlife conservation in India analyzing the managerial role of local communities as wildlife protectors and recommending the introduction of new robust policies to cater to the traditional knowledge (TK) of local communities for the improvement and protection of wildlife resources with the incentives of consequential benefits promoting environmental constitutionalism and sustainability in India.

Keywords: WPA, Protected Area, PESA Panchayats, Wildlife Management, Environmental Constitutionalism and Sustainable Development.

1. INTRODUCTION:

Wildlife has a considerable and significant link with the environment. A rich and diverse wildlife realm makes the environment healthier for life on earth. Wildlife is indispensable chief sources of food chains and determines the equilibrium of the population in a host region (Gentry & Wettach, 1986). Therefore, not only development but also subsistence of the human population invariably depends upon wildlife (Dorst, 1991). As such, there exists an indispensable direct or indirect human-wildlife interaction (HWI) and human-wildlife conflict (HWC). HWCs pose one of the most critical threats to wildlife conservation and human-wildlife coexistence (Larson, et al. 2023) worldwide (Redpath, et al., 2015; Sabuhoro, et al., 2023). Nevertheless, there are certain problematic wildlife species in every wild landscape. These wildlife species are called problematic due to their inability to sustain themselves without human intervention and they are exposed to serious threats of extinction unless legal protection is served (Ralls & Ballou, 2004; Angelici, 2016). This paper discusses the integrated environmental protection domain of two heterogeneous Indian laws, namely the Wildlife (Protection) Act-1972 (hereafter WPA) and the Panchayat Extension in Scheduled Areas Act-1996 (hereafter PESA), inquiring about plausible ethnic profits and deficits in the conservation of natural resources and wildlife protection on account of legal-managerial interrelationships between these two laws.

2. CONCEPTUAL REVIEW AND HYPOTHESES DEVELOPMENT:

2.1. WILDLIFE CONSERVATION PARADIGM UNDER THE AEGIS OF UNITED NATIONS

The United Nations Conference on Human Environment-1972 (UNCHE) is the first seminal international document yielded the environmental principles (Stockholm Declaration) along with action plans and environmental



programmes (UNEP) (UN, 1972; Bowman, et al., 2010; Work, 2022). It recognized and called governments and people to exert common efforts to preserve and improve the human environment for present and future generations through careful planning and management for the sake of intra and intergenerational (UN, 1972, Principle 2) maintenance, improvement and restoration the capacity of earth to produce vital renewable resources (UN, 1972, Principle 3). The UNCHE has emphatically cited the term 'wildlife' under principle 4 and recommendations 24, 29, 30 and 31. Expressing concern about the grave imperilment of wildlife and its habitat by a combination of adverse factors, the UNCHE puts special accountability on individuals to safeguard and prudently manage the heritage of wildlife and its habitat including the responsibility of nations to give importance to conservation of nature, including wildlife, in their planning for economic development (UN, 1972, Principle 4). The UNCHE has recommended that the Food and Agriculture Organization (FAO) advise nations to work in the interest of the biosphere, including the protection of tourist sites and wildlife (UN, 1972, Recommendation 24). Within the action plan for the human environment, the UNCHE has entrusted the Secretary-General of the UN with an accountability to monitor the effects of pollutants on wildlife (UN, 1972, Recommendation 29) by yearly gathering and publishing data to assess the total economic value of wildlife resources to facilitate monitoring of the current situation of animals endangered by their trade value (UN, 1972, Recommendation 30) and to ensure cooperation of UN agencies with governments of developing countries to develop special short-term training courses on wildlife management (UN, 1972, Recommendation 31). At the 20th anniversary of UNCHE, followed by the Brundtland report, the UN convened the Earth Summit deciphering the Rio Declaration on Environment and Development 1992 (Rio Declaration) with a compact set of 27 universal principles: the United Nations Framework Convention on Climate Change (UNFCCC); the Convention on Biological Diversity (CBD); the Declaration on the Principles of Forest Management; and the creation of the Commission on Sustainable Development (UN, 1992).

Principles 10, 20, 21 and 22 of the Rio Declaration (UN, 1992a) are directly concerned with the participation and importance of specific groups in sustainable development. Principle 10 of the Rio Declaration recognizes the participation of citizens in best handling environmental issues. This participatory right spans citizenry access to the environmental information held by public authorities, within or beyond their communities and citizenry participation in governmental decision making including redressal and remedying violation of environmental rights through judicial and administrative proceedings. This principle has, by and large, presented the first internationally agreed upon commitment to the rights of people to hold their governments accountable for environmental laws and policies (UN, 2011). In principle, the soft international environmental law deciphered in principle 10 has gained place in international environmental jurisprudence providing an 'earth-centric' environmental justice promotion mechanism instead of anthropocentric direction hearing rights of nature from local communities (Pring & Pring, 2009). This mechanism has been applied to European soil under the Arhus Convention-1998 (UN, 2011). The Rio Declaration recognizes the vital role of women in the management and development of the environment and calls for their full participation (UN, 1992a, Principle 20). This declaration endorses and calls for mobilizing the creativity, ideals and courage of youth to forge a global partnership to achieve sustainable development ensuring a better future for all (UN, 1992a, Principle 21). This declaration has recognized the vital role of indigenous people and local communities in the management and development of the environment through their knowledge and traditional practices and has led nations to enable their full and effective participation achieving sustainable development by recognizing and fully supporting their identity, culture and interest (UN, 1992a, Principle 22). It has declared peace, development and environmental protection interdependent and indivisible (UN, 1992a, Principle 25). Polluter pay (UN, 1992a, Principle 16) and precautionary principles (UN, 1992a, Principle 15) are other significant features of this declaration that save the environment from unwarranted invasions. These environmental principles have been translated into domestic laws in many countries including India.

The UN Convention on Biological Diversity (CBD)-1992 has adopted three classifications of diversity: habitat diversity (diversity of ecosystem), species diversity (diversity among species) and genetic diversity (diversity within the same species) (CBD, 1992, Article 2; Bowman, et al., 2010). This convention bears the direct relationship of indigenous and local communities with wildlife conservation. This relationship is reflected in the preamble of the CBD recognizing the close and traditional dependence of several indigenous and local communities on biological resources and their desire to obtain an equitable share of the profits generated through of use of traditional knowledge, innovations and practices related to biological diversity. Article 8 (j) of the CBD softly suggests that signatory nations legally respect, preserve and maintain knowledge, innovation, practices and traditional lifestyles of indigenous and local communities suitable for the conservation of biological diversity incentivizing them with an equitable share of the benefits arising from the utilization of such knowledge, innovation and practices. It has also been suggested that nations exchange and improve such traditional knowledge and technologies (CBD, Articles 17 and 18).



The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (Washington Convention)-1973 is one of the most important international agreements among the nations, on the initiation of the International Union for Conservation of Nature (IUCN), to preserve endangered wildlife prohibiting cross -border transportation (Zyambo, et al., 2022). This convention has aimed at monitoring and stopping commercial international trade in endangered species and maintaining the ecological balance of such species assisting countries in the sustainable use of such species in international trade. The CITES categorizes endangered wildlife species into three appendixes. The species of Appendix II require an export permit from the wildlife originating country; while the species of Appendix I require both export and import permits i.e. an export permit from the wildlife originating country as well as an import permit from the wildlife destination country; apart from these permits, there is a need for a re-export permit from the country through which CITES species and 35,000 plant species that were exposed to overexploitation (UNEP, 2020). The UNEP has established a rule of wildlife law across the globe, extending expert support for wildlife legislation and training judges, law enforcement agencies and custom officials to combat wildlife crimes (UNEP, 2020).

The UN has not only asked for governmental support for the conservation of wildlife but also for the inclusion and strengthening of the traditional knowledge, innovations and lifestyles of the indigenous and local communities in the mission of wildlife conservation. The UN has taken numerous measures to increase wildlife awareness among local communities, incentivizing them to share the profits earned from wildlife improvements through their knowledge, innovations and labour.

2.2. WILDLIFE CONSERVATION IN INDIA UNDER THE WPA AND PESA

Despite having distinct basic objectives, both the WPA and the PESA complement each other in terms of wildlife protection with strong mutual relationships. The WPA has taken slightly varied approach from the 'fortress conservation' (Brockington, 2002) of wildlife in India. Although human interventions in Pas have been prohibited, participatory rights have been simultaneously conferred to indigenous and local communities over minor forest produce (MFP) and wildlife through the application of their traditional knowledge for improvements and sustainable uses. The Conserve and Community forests are exclusively managed and maintained by indigenous and local communities. The WPA allows these communities to freely apply their traditional wildlife conservational knowledge acknowledging that they are always at the forefront of nature and very close to the wildlife. The WPA also recognizes that it is first among all people to become engaged with the surroundings of wildlife with a sense of belonging and a positive approach to wildlife biodiversity conservation initiatives (Zen, et al., 2020). The level of community participation in wildlife conservation depends upon demographic factors such as disparities in income and the implementation of socio-economic development projects and programmes in their areas (Tumbaga, 2020). The positive participation of local communities has improved local forests and wildlife (Kobbail, 2012, Zen, et al., 2020). On the other hand, legislative ignorance of indigenous equity and negation of priorities and social approaches of indigenous and local communities depreciates wildlife conservational participation and support (Thompson, et al., 2012; Zen, et al., 2020). Legislative acclamation of the co-existence of indigenous communities and wildlife encourages co-management attitude into them, which is being widely applied worldwide to maintain balanced development and conservation (Zen, et al., 2020; Sabuhoro, et al., 2023). To ensure effective and positive community participation in wildlife conservation, the PESA guarantees the pursuit of community traditional knowledge in the self-rule system.

2.3. HYPOTHESE

This research paper proposes the following hypotheses:

H1: The local community has limited participatory rights under the WPA and PESA in the management of wildlife resources; and

H2: Ineffective participatory rights of the local community have led to deterioration of wildlife resources.

3. METHOD:

The study was carried out by collecting data available on the website of the Ministry of Panchayat Raj-Government of India, the Wildlife Institute of India, and the Department of Wildlife Protection of various States. In addition to these resources, data for this study were also collected from the Newspapers and existing research reports. After reviewing the literatures on the recognition of local community rights to participate in the management, conservation and improvement of wildlife resources, the collected data were analyzed and tabulated.



4. **DISCUSSION:**

The WPA is enforced and extended to the whole region of India. Initially, the extension of the WPA was restricted to the State of Jammu and Kashmir (J&K). Earlier, the J&K had its own wildlife conservation law titled 'The Jammu and Kashmir Wildlife (Protection) Act-1978' for the protection of wildlife, flora and fauna and for the management of protected areas within its territorial limits, which has been repealed by the Jammu and Kashmir Reorganization Act-2019, which extended the enforcement and applicability of the central WPA-1972 over the J&K region along with other regions of India (UT of J&K, 2023). Approximately 5.28% of the land in India, i.e. 1,73,629.52 square kilometer, has been covered by 998 protected areas under the WPA which includes 567 Wildlife Sanctuaries, 106 National Parks, 105 Conservation Reserves and 220 Community Reserves (WII, 2023). Table-I shows the figures of PAs in India. Table-II shows the PESA implementing Indian States. The span of PAs in the PESA-States is shown in Table-III based on the percentage of area covered in the respective States. There are 108 fully and partially PESAcovered districts across all PESA States, as shown in Table-IV. The numbers of PESA covered districts and villages are shown in Table-V. Table-VI is the chart of eleven rights conferred to PESA Panchayats in the PESA implementing States. Table-VII shows the comparative analysis of ownership of PESA Panchayats over the MFP among these States. Same kind of analysis has been performed regarding the ownership of PESA Panchayats over the Mines-Mineral, Agro-Product Market and Money-Lending respectively from Tables-VIII to X. the denial of PESA Panchayat rights to prepare local plans and tribal sub plans in all PESA States is shown in Table-XI.

Many websites of the Government of India and the PESA State Governments, in addition to the Tata Institute of Social Sciences and the Wildlife Institute of India, have been accessed to collect data on access of local communities over natural resources within the PAs, but none of them has reported data on these issues. As such, it can be concluded that government institutions are reluctant to grant co-managerial rights to local communities over wildlife within PAs.

However, the data depicted in Tables-VI to X represent some sort of satisfaction as to ensuring participatory management of wildlife within the PESA States. Himachal Pradesh, Gujarat, Andhra Pradesh, Telangana and Chhattisgarh are among the five PESA States with the highest percentage of land covered with PAs under the WPA. These States have granted authority to the Panchayat Raj Institutions (PRIs) in the Scheduled Areas (under the PESA) over the selection and approval of socio-economic development programmes, pre and informed consent for land acquisition, the management of Water bodies and own MFP. The PESA PRIs of these States have performed excellently in wildlife conservation by strictly declining the implementation of socio-economic development programmes and land acquisition for mining which are obnoxious to the health of wildlife and habitat. Cancellation of the Hasdeo Arand coal mining of Chhattisgarh in 2022 is a recent example of a wildlife conservation effort of the PESA panchayats. Andhra Pradesh, Jharkhand and Teelangana have kept mines and minerals out of the control of PRIs. Only Chhattisgarh, Gujarat and Madhya Pradesh have authorized PRIs to manage and control agro-product marketing. All PESA States have authorized PESA panchayats to control the institutions and functionaries in all social sectors, enabling them to take action toward the conservation of their natural habitat;, however, none of these PESA States have enabled their PESA Panchayats to control local developmental plans through tribal sub plans.

5. ANALYSIS:

5.1. DESCRIPTIVE AND CORRELATIONAL ANALYSIS

This research study explored eleven significant rights of the PESA Panchayats to the wildlife resources in all ten PESA implementing Indian States. It has been found that these States have unanimously granted five rights to their PESA Panchayats and completely denied one right, whereas the remaining five rights have been recognized in some States and denied in other States. The rights recognized to the Panchayats among all PESA implementing Indian States are (1) Selection and Approval of Socio-Economic Development Plans, (2) Gram Panchayat to obtain UC from Gram Sabha, (3) Pre and Informed Consent for Land Acquisition, (4) Control over Water bodies, and (5) Recommendation of Gram Sabha / Gram Panchayat before granting a mining license. None of the PESA implementing Indian States has conferred rights to the Panchayats to control Local Plans including Tribal Sub Plan. It has denied participation of PESA Panchayats to come up with the plans and projects of their choice and *inter alia* controlled scope of PESA Panchayats to exercise their rights to select and approve socio-economic developmental plans presented to them by outsider agencies. Another difficulty is associated with effective community participation in the management of wildlife resources. Tables VII to X represent the variation in the recognition of the community's right to own MFP, Mines and Minerals, Agro-Product Market and Money Lending from one State to other. Several studies have shown that there is a strong correlation between the recognition of these rights and community participation in the conservation of wildlife resources. Chhattisgarh, Gujarat and Madhya Pradesh have performed well in wildlife conservation with the effective participation of local communities compared to other PESA States. These States have incentivized local communities to improve the wildlife resources they bring.



5.2. EVALUATION OF THE SUCCESS AND FAILURE OF THE WPA AND THE PESA IN INDIA

The WPA has been appreciated by all States of India for establishing PAs to conserve the biodiversity of wildlife. Several Indian States have established Tiger projects, Elephant projects and many other projects for the conservation of wild animals and birds exploring provisions of the WPA. This Act has enabled local wildlife authorities to ensure local community participation in wildlife conservation on an incentive basis. Local communities within the National Parks and Wildlife Sanctuaries have been permitted to collect minor wildlife resources to a limited extent for personal uses only and not for commercial purposes. They are obliged to protect wildlife and report damage to wildlife officers, but they are not allowed to bring legal complaints against the offenders without waiting sixty days after serving notice of this effect. Local communities have been endowed with managerial powers over wildlife within Conservation Reserves and Community Reserves; which is meaningless because there are very limited numbers of these reserves. There are no data available on the success or failure of WPA in terms of local community involvement in wildlife conservation. However, the available data on PESA implementations supplement this gap, enabling local communities to apply their traditional knowledge and lifestyle to wildlife conservation through their panchayats. Currently, by and large, local communities have been enabled to sustainably use wildlife. The wildlife status in the PESA States has improved due to the trust of local communities. Nevertheless, there are certain PESA States, such as Jharkhand, Madhya Pradesh, Andhra Pradesh and Telangana, that have failed to respond to the PESA in both letter and spirit.

6. FINDINGS:

India is the homeland of rich wildlife comprising of approximately 8% of the world's species on 2.4% of the world's land share. There are 7.6% mammals, 12.6% avians, 6.2% reptiles, 4.4% amphibians, 11.7% fishes and 6% flowering plant species (Ilyas, 2023:). Approximately 5.32% of Indian soils are covered with PAs spanning over 1,75,169.42 square kilometers. There are 1014 protected areas consisting of 106 National Parks, 573 Wildlife Sanctuaries, 115 Conservation Reserves and 220 Community Reserves. Among these PAs, the Wildlife Sanctuaries have highest geographical coverage (3.73%) and the Community Reserve shares the least geographical coverage (0.04%) (WII, 2023). Table –I presents geographical expansion of these PAs in square kilometers and share percentages.







This study found that ten Indian States have implemented the PESA, sharing 56.816% of the total PAs of India within their 108 districts. Table-II shows results for ten Indian States implanted PESA Act, Table-III shows the percentage of PAs (including National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves) in these PESA implementing Indian States, Table-IV presents number of fully and partially PESA covered districts of these ten PESA implementing Indian States and Table-V shows the number of villages covered under the PESA Act within the districts of the PESA implementing Indian States. This study explored eleven kinds of rights guaranteed to local community members over wildlife resources under the PESA Act. These rights vary from State to State. A right guaranteed in one State has been denied in another State. Table-VI tabulates the enforcement of all eleven rights in all ten PESA implanting States. This study recognizes the rights of the PESA Panchayats to own minor forest produce (MFP) in eight PESA implementing Indian States; only Jharkhand and Madhya Pradesh have denied PESA Panchayat's right to ownership of MFP (see Table VII). Ownership of Mines and Minerals is another important concern of PESA Panchayats. This study finds seven Indian States recognizing PESA Panchayat's right to own Mines and Minerals, whereas Andhra Pradesh, Jharkhand and Telangana have denied this right to the PESA Panchayats within their jurisdiction (see Table VIII). This study explores the denial of PESA Panchayats' right to ownership of Agro-Product Market in majority of PESA implementing Indian States. Seven States have denied this right, only Chhattisgarh, Gujarat and Madhya Pradesh States have recognized PESA Panchayats' right to ownership of Agro-Product Market within their jurisdictions (see Table IX). Money lending is another major issue in villages. This study finds that only the Chhattisgarh, Gujarat and Maharashtra States have granted their PESA Panchayats to manage their Money-Lending business, whereas the remaining seven PESA implementing Indian States have denied this right to their PESA Panchayats (see Table X). Regarding local planning including the tribal sub plan, none of the PESA implementing Indian States has recognized and protected the rights of PESA Panchayats within their jurisdictions to make developmental plans including tribal sub plans (see Table-XI).

7. TEST OF HYPOTHESES :

H1: The local community has limited participatory rights under the WPA and PESA in the management of wildlife resources.

This research study explored and analyzed only eleven rights of the PESA Panchayats to wildlife resources among the PESA States. The research results depicted in Table VI to XI exhibit formal recognition of the rights of PESA Panchayats over the selected wildlife resources by the PESA States. As far as socio-economic development plans are concerned, Panchayats are handed over these plans for formal approval irrespective of their ethnic choice. In the case of land acquisition, informed consent is obtained before acquiring land; however, some PESA implementing States have diluted this consent procedure by negating PESA Panchayat's legal right to mines and mineral resources. None of the PESA Panchayats among all the PESA covered States are authorized to design their local plans or tribal sub plans. The first hypothesis of this research is proven.

H2: Ineffective participatory rights of the local community have lead to deterioration of wildlife resources.

The data presented in Tables VII to X reveal that the Chhattisgarh and Gujarat States have steadily recognized the rights of their PESA Panchayats over the MFP, Mines-Minerals, Agro-Product Market and Money-Lending, which has led to effective local community participation in wildlife conservation and improvement in terms of sustainably utilizing wildlife resources. The growth of tigers in the Gir forest of Gujarat was the result of such local community participation. On the other hand, the data in these tables reveal the ineffective participation of local communities in wildlife conservation due to a lack of statutory rights and wildlife resources. This has resulted in the deterioration of wildlife resources in these States. Accordingly, the second hypothesis of this research is proven.



8. RECOMMENDATIONS:

There are certain suggestions to determine the benefits of WPA and PESA for wildlife conservation-

- a) The local communities residing within the protected areas should be recognized as wildlife protectors across India;
- b) There should be a mechanism for effective pre and informed consultation with these wildlife protectors outside the PESA States before effectuating any socio-economic programmes, plans and projects and acquiring forestlands;
- c) These wildlife protectors should be equally empowered to complain against wildlife criminals as government officials are for the prosecution of offenders, so that they may be kept away from the legal notice serving technicalities;
- d) The PRIs of PESA covered regions should be empowered by the State Government in the letters and spirit of section 4 of the PESA Act-1996 to preserve their ethos, *inter alia, to* conserve wildlife and share benefits arising from the use of their traditional knowledge and innovations;

The panchayat members should be treated equally to government officials to file complaints against wildlife offenders for immediate prosecution.

9. CONCLUSION :

The importance of wildlife conservation through the managerial participation of local communities has received global acknowledgement in recent decades. The WPA and PESA were enacted for wildlife conservation and self-rule, respectively, in the Scheduled Areas. The WPA has successfully created National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves, accounting for 108 protected areas across India. Unauthorized access to wildlife regions criminalizing illegal hunting, collecting, taking or uprooting of wildlife has been restricted. As far as the conservation of problematic wildlife, i.e. the wildlife exposed to self-extinction, is concerned, the WPA runs behind to encourage the participation of local communities in building their trust to obtain incentives in the proceeds arising from the application of their traditional knowledge and innovations in the improvement of wildlife. The PESA came forward to compensate for this deficit in trust in local communities, but its operation is limited to only ten PESA States. However, the local communities of several PESA States not only have received incentives for improving natural resources through their traditional knowledge and innovations but also have been awarded ownership and managerial participatory rights over natural resources. The combined effect of WPA and PESA is reflected in the wildlife conservation within the protected areas spanning over the PESA States.

ACKNOWLEDGEMENT: The author would like to express their gratitude to Prof. Ashok Singh, Hon'ble Vice Chancellor of the Sant Gahira Vishwavidyalaya, Sarguja, Ambikapur (C.G.) for nurturing and providing all necessary logistics to carry out this research. First author is highly obliged to his research guide Dr. Milendra Singh for his continuous supervision over the research of the first author.

CONFLICT OF INTEREST: The authors declare that there is no conflict of interest.

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