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وضعیت محیط زیست در افغانستان به دلیل رشد سریع نفوس، گسترش شهرنشینی و استفاده ناپایدار از منابع طبیعی رو به وخامت است. در دهه‌های اخیر این فشارها تشدید گردیده و چالش‌های عمده‌ای چون کمبود آگاهی محیط‌زیستی، قطع جنگلات، فرسایش خاک، بیابان‌زایی، کمبود آب، گرمای شدید، طوفان‌های گرد و خاک، خشکسالی، عقب‌نشینی یخچال‌ها و افزایش آلودگی آب و هوا ناشی از تغییرات اقلیمی را به‌وجود آورده است. این مرور، نقش مشارکت جامعه در بهبود وضعیت محیط‌زیستی افغانستان را با تمرکز بر چالش‌ها و فرصت‌ها بررسی

می‌کند. مرور نظام‌مند مطالعات ملی و بین‌المللی در زمینه مشکلات محیط‌زیستی و رویکردهای اجتماع‌محور در افغانستان و مناطق مشابه نشان می‌دهد که مشارکت جامعه نقش کلیدی در پاک‌ی محیط، حفاظت از منابع طبیعی، بهبود معیشت و تقویت تاب‌آوری در برابر تغییر اقلیم دارد. فرصت‌های موفقیت زمانی پدید می‌آید که مشارکت محلی با برنامه‌های آگاهی‌دهی، حمایت نهادی، پالیسی‌های فراگیر و ابتکارات جامعه‌محور همراه گردد. با این حال، در افغانستان مشارکت عمومی هنوز نهادینه نشده و سهم شهروندان در مدیریت محیط‌زیست محدود است. تقویت مشارکت جامعه از طریق ارتقای آگاهی، ظرفیت‌سازی و حضور فراگیر به‌ویژه زنان و جوانان، یک فرصت مهم محسوب می‌شود. همچنان، همسویی پالیسی‌ها، تأمین منابع مالی پایدار و ادغام روش‌های سنتی مانند بسیج جمعی جامعه می‌تواند کارایی را افزایش دهد. دستیابی به مدیریت پایدار محیط‌زیست در افغانستان مستلزم تلاش هماهنگ نهاد‌های دولتی، مؤسسات غیر دولتی، سازمان‌های بین‌المللی و جوامع محلی است.

کلیمات کلیدی: ارتقای آگاهی؛ تخریب محیط‌زیست؛ تغییرات اقلیمی؛ توسعه پایدار؛ مشارکت عامه

Introduction

Afghanistan, due to its unique geographical location and the population's heavy reliance on agriculture and rangelands, is highly vulnerable to the impacts of climate change and the degradation of vegetation cover. Despite significant scientific and cultural advancements, humans continue to pollute the environment, and many environmental experts identify them as the primary drivers of Earth's degradation (NUPI, 2023). In recent years, Afghanistan's environmental situation has become increasingly critical, marked by deforestation, rangeland degradation, soil erosion, recurrent droughts, extreme heat, frequent dust storms, contamination of drinking water sources, water scarcity, glacier retreat, climate change and rising air pollution linked to fossil fuel consumption. Additional pressures, such as rapid population growth, increasing waste generation and the mismanagement of natural resources and waste have further aggravated the crisis. These challenges not only undermine the country's fragile ecosystems but also pose serious threats to food security and rural livelihoods (The New Humanitarian, 2007; Ghulami et al., 2025). Under such circumstances, reliance solely on centralized governmental approaches is insufficient, and active participation of local communities is recognized as the key to the success of environmental policies (FAO, 2024).

Although humankind has long been aware of the importance of the environment, it was not until the late twentieth century that the protection of nature and the prevention of its degradation became a serious global priority. In Afghanistan, with the growing urban population density, various types of environmental pollution such as air pollution, waste accumulation and noise pollution have increasingly emerged (WHO EMRO, 2024). These problems not only disrupt the peace and security of human life but also endanger human existence. Challenges such as air and water pollution, Losses of 12ediment12s12a, excessive deforestation, and noise pollution have both national and global dimensions (CEOBS, 2021; Guardian, 2024).

Under these circumstances, the participation of local communities is regarded as a key approach to addressing environmental challenges. Global and national evidence indicates that the protection and restoration of natural resources are more sustainable and successful in communities where people play an active role in decision making and implementation. Public participation not only strengthens the sense of ownership and responsibility but also enables the use of indigenous knowledge, improves natural resource governance, and enhances social cohesion (UNDP, 2021).

Successful domestic examples of this approach in Afghanistan include the ecosystem restoration project in the districts of Tagab, Kishim, and Faizabad, implemented by the RGEO organization through a "nature-based solutions" approach. This project managed to plant more than 200,000 saplings, construct 125 small water reservoirs, establish 120,000 meters of terracing and set up a network of forest protection patrols (RGEO, 2025). Furthermore, the joint project of the Food and Agriculture Organiza-

tion of the United Nations and the Global Environment Facility (GEF), entitled Community-Based Sustainable Land and Forest Management, successfully restored vegetation cover in more than 10,000 hectares of forest and 200,000 hectares of rangeland, while simultaneously creating new economic opportunities for rural communities (FAO & GEF, 2018).

The role of women and youth in this process is highly significant. As household managers and transmitters of cultural values and environmental literacy to future generations, women can directly influence community behavior. Therefore, comprehensive public participation from the family level to workplaces and social settings is an undeniable necessity and should be regarded as the social responsibility of every individual (UNEP, 2022).

However, obstacles such as limited financial resources, weak policymaking, the absence of a coherent information system and restricted access to data continue to hinder the full utilization of community participation (NEPA, 2023). To overcome these challenges, policies must be designed in a way that ensures the inclusion of marginalized groups, women, youth in decision-making processes and also providing the necessary institutional and legal support (UNEP, 2022). Accordingly, the role of community participation in improving Afghanistan's environmental situation is not only vital for the protection and restoration of ecosystems but also indispensable for enhancing socio-economic resilience and strengthening communities' capacity to adapt to climate change.

Although the establishment of the National Environmental Protection Agency and the introduction of academic programs such as the Department of Environmental Protection, Water Resources and Environmental Engineering, Mining and Environmental Engineering are positive governmental initiatives in recent years, the growing urban population density, excessive extraction of groundwater, poor quality of fossil fuels, and other challenges highlight the urgent need for comprehensive programs tailored to citizens' economic conditions to protect the environment. At present, policymakers and researchers face the dilemma of determining how to fully and effectively engage the public. This paper aims to propose an approach that awakens environmental conscience, enabling ordinary citizens to become effectively involved and to participate more actively in environmental management.

Methodology

This narrative review draws on a comprehensive analysis of existing literature related to community role in addressing environmental challenges and opportunity to improve environmental management in Afghanistan. The review incorporates evidence from peer-reviewed journals, research articles, Google Scholar sources, and studies focusing on the sensory properties of apricots.

Results and Discussion

Community Participation Strategies Addressing Environmental Opportunities and Challenges

Public participation is a relatively new approach in environmental management that can enhance the quality of environmental decision-making and sustainable development. The rationale behind broad public involvement in environmental management has been widely documented. It facilitates better communication, raises environmental awareness and capacity among people, helps identify and resolve social conflicts, and fosters trust. Policies that incorporate public values and concerns are more likely to gain approval and support during implementation, while reducing hostility and confrontational attitudes, thereby ensuring the successful achievement of the intended goals (Al-Kodmany, 1999).

During the twentieth century, researchers conducted studies on meaningful and effective public participation in environmental protection. As a result, many efforts were made to incorporate public values and integrate people's perspectives into the management process. Much of this research focused on improving the effectiveness of public participation, which included designing and applying more proactive approaches to engage the public in environmental issues. Consequently, various forms of public

participation have been designed and examined. Public participation encompasses a set of methods intended to inform, consult and involve people, including referendums, public hearings, surveys, consensus conferences and citizens' advisory committees (Cleaver, 2001).

In comparison, conventional participatory methods such as public comments and hearings are often characterized by a lack of in-depth dialogue and the involvement of only a small number of people, whereas innovative participatory processes in the United States such as study circles, citizens' juries, roundtables, and collaborative watershed management efforts offer benefits that are more valuable. Accordingly, more appropriate and innovative approaches have been designed and examined. For example, in the state of Minnesota, community–industry dialogues were implemented to enhance pollution prevention through direct negotiations between the community and local factories (Guardian, 2024). In China, the most common methods of engaging and involving the public include public meetings, questionnaires, hotlines, suggestion boxes and public hearings. However, many of these methods have thus far been employed within a top-down approach to collect public opinions, which unfortunately does not guarantee broader public participation (Johnson, 2010).

In India, the Gond community in Pachgaon village, Maharashtra, secured forestry rights under the Forest Rights Act, enabling them to establish a bamboo business that boosted incomes and supported local development (Guardian, 2024). In Bangladesh, participatory water management under the Guidelines for Participatory Water Management (GPWM) sought to involve farmers and rural communities, but institutional duplication and top-down approaches limited its effectiveness (Cleaver, 2001). Similarly, in Tanzania, Community-Based Natural Resource Management (CBNRM) initiatives adjacent to the Ikongoro–Grumeti Game Reserves generated livelihood benefits such as employment, entrepreneurship, and infrastructure improvements while reducing reliance on illegal activities (Chachage, 2017). In India's Meghalaya state, the MegLIFE project supported by JICA established community centers in 500 villages to enhance forest restoration, water management, and rural livelihoods. Likewise, in the Kenya–Tanzania Mara River Basin, a cross-border project documented and strengthened CBNRM groups through inventories and SWOT analyses, offering best-practice guidelines for wildlife, forest, and water governance (East African Community, 2010).

In recent decades, the increase in urban population density, recurring wars, and successive droughts have posed serious threats to Afghanistan's environment and natural resources across the country. Particularly in major cities, environmental pollution has expanded at unprecedented levels, and neglecting these issues could endanger human health and survival. Living in a healthy environment is considered a fundamental human right, and safeguarding this right requires the active participation of citizens alongside governmental and private institutions. The "right to a healthy environment" has been recognized in numerous national and international documents over the past two decades (UN, 1992; UNEP, 2020).

In Afghanistan's traditional society, women, due to their central role in family management and the upbringing of future generations, can institutionalize a culture of efficient consumption and environmental protection. This includes reducing the use of water and electricity, avoiding excessive reliance on plastics and chemicals, saving paper, and using detergents properly (Kabeer, 2017). Increasing women's literacy and awareness in health and environmental matters paves the way for effectively transferring these values to children and the broader community. Although women play a significant role in environmental protection, their participation in related decision-making and planning processes remains limited. Expanding their involvement could have substantial positive effects on improving environmental conditions (UN Women, 2019).

Combating various types of pollution: air, water, noise, and waste require the all-encompassing cooperation of society. The first step in this direction is raising public awareness through education and cultural promotion (UNEP, 2020). Every individual can play an effective role in protecting the environment by optimizing resource consumption and reducing waste generation (Smith & Jones, 2019).

Close collaboration with governmental institutions, non-governmental organizations, and environmental projects in implementing laws and policies is also essential (World Bank, 2018). Ultimately, achieving sustainable development requires coordinated efforts at all levels of society from individual to institutional and the pursuit of comprehensive environmental policies (IPCC, 2022). Below, the strategies for community participation in addressing Afghanistan's environmental opportunities and challenges are presented in bullet points.

Opportunities

- ❖ **Community awareness and education:** Community participation is one of the fundamental pillars in addressing environmental challenges in Afghanistan. The first step in this process is continuous awareness-raising and education of community members about the importance of environmental protection and the consequences of its degradation. Organizing training workshops in villages by environmental experts and activists, using local media such as radio, television, and mobile text messages for information dissemination, and placing special emphasis on the education of urban and rural women can help transmit environmental culture within families (FAO, 2024).
- ❖ **Establishment of local groups:** Strengthening public participation through the formation of local groups dedicated to protecting the environment and natural resources—particularly in provinces such as Bamyan, Nuristan, and Badakhshan—plays an effective role in preserving vegetation cover and ensuring the sustainable management of rangelands. With support from local and international organizations, these groups can pursue activities such as tree planting and environmental stewardship (RGE0, 2025; UNDP, 2021).
- ❖ **Timely access to environmental information:** Ensuring communities have access to accurate and timely environmental information is essential. Installing information boards in rural areas, printing and distributing simple brochures in local languages, and organizing Q&A sessions on environmental issues can help people participate in natural resource protection with greater knowledge and confidence (NEPA, 2023).
- ❖ **Utilization of indigenous and traditional knowledge:** Local communities possess valuable indigenous knowledge accumulated through generations of managing natural resources. Consulting tribal elders and experienced farmers on practices such as controlled grazing and soil conservation can lead to more context-appropriate and sustainable solutions (Pretty, 2003).
- ❖ **Environmentally friendly economic opportunities:** Promoting green livelihoods—such as cultivating local medicinal plants, developing ecotourism, and expanding the use of renewable energies—can reduce pressure on forests, rangelands, and water resources while providing alternative income sources. These initiatives not only improve livelihoods but also incentivize communities to take a more active role in environmental protection (FAO & GEF, 2018; Ghulam, 2025).
- ❖ **Legal and institutional support:** Strengthening the role of district councils in decision-making related to natural resources and providing training for local officials on environmental laws are key measures for ensuring successful community participation in conservation efforts (UNEP, 2022).
- ❖ **Monitoring and evaluation:** Continuous monitoring and evaluation of environmental activities by local committees—including diverse representatives, particularly women and youth—can enhance transparency and accountability. Using simple technologies such as mobile phones for reporting violations, especially in remote areas, is an effective strategy (WHO EMRO, 2024).

- ❖ **Cross-sectoral collaboration:** Enhancing collaboration among government institutions, NGOs, and local communities, while mobilizing financial and technical support from international organizations such as UNDP and UNEP, provides the necessary infrastructure for successful participatory environmental projects (UNDP, 2021; UNEP, 2022).
- ❖ **Integration of traditional collective practices:** Addressing environmental challenges in Afghanistan is achievable through active and responsible community participation, particularly of women and youth. A notable example is Hesar-e Omumi (public voluntary work), a deeply rooted social tradition that mobilizes citizens for collective activities such as cleaning the environment, collecting waste, planting trees, and improving public spaces. This practice not only improves environmental quality but also enhances public awareness, strengthens social cooperation, and reduces pressure on government institutions—ultimately contributing to sustainable development and a healthier environment for future generations (MedCrave, 2018; Ghulam, 2018).

Challenges

- ❖ Limited literacy levels, inadequate media penetration in remote areas, and cultural barriers may hinder effective outreach and long-term behavior change (FAO, 2024).
- ❖ Insufficient funding, weak organizational structures, and lack of training can reduce the effectiveness and sustainability of local groups (UNDP, 2021; RGEO, 2025).
- ❖ Limited access to digital tools, low literacy, and uneven distribution of information can restrict engagement, particularly in rural and remote regions (NEPA, 2023; FAO, 2024).
- ❖ Generational knowledge loss, reluctance of elders to engage formally, and the undervaluing of traditional practices in policymaking may limit their adoption (Pretty, 2003; FAO & GEF, 2018).
- ❖ Lack of market access, inadequate technical support, and limited awareness of sustainable practices can impede adoption and scaling (FAO & GEF, 2018).
- ❖ Weak governance, corruption, and inconsistent enforcement of laws may undermine community-led initiatives (WHO EMRO, 2024; NEPA, 2023).
- ❖ Limited technical capacity, insufficient monitoring tools, and delayed reporting can reduce the impact of these efforts (UNDP, 2021; UNEP, 2022).
- ❖ Coordination issues, overlapping mandates, and limited communication can hinder collaborative efforts (UNDP, 2021; UNEP, 2022).
- ❖ Urbanization, changing social norms, and lack of institutional support may reduce participation and limit the effectiveness of these traditional practices (MedCrave, 2018).

Conclusion

Community participation is one of the fundamental pillars in improving the environmental situation in Afghanistan. Such participation not only yields positive environmental outcomes but also strengthens economic and social capacities, enhancing the resilience of communities against climate change and other shocks. Achieving this goal requires coherent policymaking, sustainable financial resources, and special attention to social inclusion, particularly the active involvement of women. Nevertheless, extensive challenges such as the degradation of forests and rangelands, the loss of rare plant and animal species, water, soil, air pollution, excessive consumption of fossil fuels and improper use of chemicals and pesticides indicate that the current human environment relationship is on an unsustainable and threatening path. This trajectory poses serious risks to the health and survival of humans and other living beings.

In this context, raising public awareness serves as a key tool for effective citizen participation. Organizing educational and awareness-raising programs through media, brochures and seminars can provide open access to environmental information, foster greater responsibility among the public and relevant institutions. Reviewing existing strategies indicates that environmental education and literacy, the use of indigenous knowledge, strengthening local natural resource protection groups, creating sustainable economic opportunities, and providing legal and institutional support are fundamental prerequisites for success in this regard. Additionally, leveraging traditional mechanisms such as Hesar-e Omumi (public voluntary work) can serve as a low-cost, indigenous tool to enhance collective participation in environmental activities.

Therefore, achieving environmental objectives in Afghanistan requires a comprehensive and coordinated approach among the government, non-governmental organizations, international agencies, and local communities. Only through such multi-level and sustainable collaboration can improvements in environmental quality, reductions in pressure on natural resources and the assurance of sustainable development for current and future generations be realized.

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