



Content is available at: CRDEEP Journals
Journal homepage: <http://www.crdeepjournal.org/category/journals/global-journal-of-current-research-gjcr/>

Global Journal of Current Research
(ISSN: 2320-2920) (Scientific Journal Impact Factor: 6.122)

UGC Approved-A Peer Reviewed Quarterly Journal



Research Paper

Uttarakhand National Sports Medal Expectations: Impact on State Economy, Tourism, Socio-Political Landscape, and Environmental Considerations

Santosh Kumar^{1*} and Pooja Kohli²

¹Assistant Professor and Head, Department of Physical Education, D.S.B. Campus Kumaun University, Nainital, Uttarakhand.

² Research Scholar, Department of Sociology, D.S.B. Campus, Kumaun University, Nainital, Uttarakhand.

ARTICLE DETAILS

Corresponding Author:
Santosh Kumar

Key words:
Uttarakhand National Games, Athletes, Environment, Socio-Political Landscape, Sustainability, Tourism.

ABSTRACT

As Uttarakhand gets ready to host the 38th National Games in January and February of 2025, this paper looks at the state's preparations, expectations, and wider effects. The state is improving sports facilities to accommodate more than 14,000 athletes participating in 38 disciplines with an investment of ₹350 crore. The study focuses on Uttarakhand's medal aspirations, utilizing local talent, and the socioeconomic advantages, such as boosting tourism, influencing politics, and fostering economic progress. Moreover, the research incorporates sociological, cultural, and political viewpoints, taking into account how governance, policy formation, environmental sustainability, and social integration affect the growth of sports. To support Uttarakhand's environmental objectives, special attention is paid to sustainable projects, including planting a tree for every medal winner, introducing biodegradable medals, and utilizing green crackers for the inauguration. Evaluations are also conducted on the infrastructure improvements made to stadiums, training facilities, and sporting facilities. The study is supported by media sources, sociological research, reports from the Uttarakhand State Sports Council, and the Indian Olympic Association (IOA). According to key results, hosting the games offers Uttarakhand a special chance to establish itself as a sports center, strengthen its economy, highlight its vibrant sports culture, and have an impact on social cohesion and regional politics.

1. Introduction

The National Games of India provide a platform for states to showcase athletic excellence while fostering socio-economic and political development. Uttarakhand's hosting of the 38th edition marks a significant milestone in its sporting journey. The event is expected to not only elevate the state's medal prospects but also have a far-reaching impact on its economy, governance, tourism sector, and sports culture. This paper explores these facets with a focus on infrastructure development, athlete preparation, political implications, cultural expectations, environmental concerns, and projected outcomes for the state. Uttarakhand, known for its rich cultural heritage and pristine natural landscapes, is emerging as a promising contributor to India's national sports achievements. As investments in sports infrastructure and athlete training gain momentum, the ripple effects on the state economy, tourism, socio-political engagement, and environmental management are becoming increasingly evident.

Economically, the rise in sports-related activities can drive employment, stimulate local industries, and attract public-private partnerships (Dubey, 2022). The prospect of sports medals can also bolster tourism by positioning Uttarakhand as a hub for adventure and sports tourism, further reinforcing the state's image as the "Land of the Gods" with a modern twist (Singh & Rawat, 2021). Politically, successful athletes often become cultural icons, influencing policy agendas and youth engagement, which may shift electoral narratives and developmental priorities at the grassroots level (Sharma, 2020). However, the construction of stadiums and sports villages in ecologically sensitive areas raises concerns about deforestation, waste generation, and the carrying capacity of mountain ecosystems (Joshi & Thapliyal, 2019). This multidimensional intersection of sports and state development in Uttarakhand invites a critical analysis of both the

¹Author can be contacted at: ¹Assistant Professor and Head, Department of Physical Education, D.S.B. Campus Kumaun University, Nainital, Uttarakhand.

Received: 01-01-2025; Sent for Review on: 10-01-2025; Draft sent to Author for corrections: 15-01-2025; Accepted on: 25-01-2025; Online Available from 28-01-2025

DOI: [10.13140/RG.2.2.10364.86404](https://doi.org/10.13140/RG.2.2.10364.86404)

GJCR: -8800/© 2025 CRDEEP Journals. All Rights Reserved.

opportunities and challenges posed by the rising expectations for national sports medals. Understanding these impacts holistically is crucial for sustainable policymaking that balances aspirations with responsible governance.

1.1 Medal Expectations and Sports Development

Uttarakhand's medal performance in previous editions of the National Games has been modest. However, hosting the games has catalyzed investments in training programs, facilities, and athlete scouting.

1.2 Key Sports Disciplines

Uttarakhand's natural topography and long history of engagement in various activities make it one of the state's strongest regions for mountaineering, shooting, and athletics. Aspiring mountaineers flock to the state because of its untamed landscape, which includes the Himalayan Mountain range, which offers the perfect setting for high-altitude training and mountaineering (Sharma & Kumar, 2023). Uttarakhand has also produced a lot of talented athletes, especially in long-distance running, where the high-altitude environment aids in enhancing stamina and endurance. Modern shooting ranges and specialist coaching are available to the state, which helps explain why local competitors are becoming more and more successful in national and international tournaments. These fields demonstrate the state's capacity to create athletic talent through organized development programs and cutting-edge training facilities, in addition to complementing its geographic advantages (Sharma & Kumar, 2023).

2. Training Initiatives

An important factor in improving Uttarakhand athletes' performance is the implementation of specialized training camps and strategic partnerships with national sports organizations. These programs aim to fully capitalize on the state's distinct geographic advantages, including its high-altitude topography, which offers the perfect setting for building strength, endurance, and mental fortitude. High-altitude training facilities have been established in Uttarakhand, particularly for endurance sports like mountaineering and athletics, where the lower oxygen levels improve athletes' endurance and cardiovascular efficiency. These centers provide state-of-the-art amenities including workout equipment, rehabilitation areas, and cutting-edge sports science laboratories. To guarantee that athletes receive top-notch coaching and assistance, Uttarakhand also works with the Sports Authority of India (SAI), the Indian Olympic Association (IOA), and other national organizations. To train athletes and use state-of-the-art training techniques, coaches from both domestic and foreign platforms are brought in. In addition to physical training, these camps emphasize injury avoidance, mental readiness, and proper diet. Additionally, the training procedure incorporates cutting-edge technologies. To evaluate an athlete's development and improve their training, data-driven performance tracking, virtual reality (VR) simulations, and AI-based analytics are employed. By spotting weak points before they become issues, these technology tools aid in technique improvement, performance metrics tracking, and injury prevention. Uttarakhand hopes to develop elite athletes capable of competing well at the national and international levels through these initiatives. Additionally, these training programs give young players at the grassroots level access to facilities and expert coaches. In addition to ensuring that its athletes are on par with the finest in India, the partnership with national sports organizations helps to promote Uttarakhand as a growing sports powerhouse (*Indian Olympic Association [IOA], 2024*).

3. Growth of Sports Culture:

Uttarakhand's sports culture is set to be greatly improved by the 2018 National Games, particularly among the younger generation. Organizing an event of this kind encourages young people to get involved in sports by drawing considerable attention to them. The games provide a strong stage for exhibiting athletic ability, establishing positive role models, and igniting interest in organized sports throughout the state. The National Games provide young people with a sense of pride and drive by showcasing the accomplishments of regional athletes. Sports will probably receive increasing attention in schools, universities, and community centers as more young people want to participate in competitive sports from a young age. It is anticipated that the occasion would spur the creation of grassroots initiatives to identify and promote regional talent. Furthermore, it is anticipated that the National Games would promote a change from the conventional, unstructured forms of sports participation to more regimented training regimens. Together with national organizations like the Sports Authority of India (SAI) and Indian Olympic Association (IOA), the state's emphasis on training camps, state-of-the-art facilities, and expert coaching will give young athletes organized routes to improve their abilities. There may be long-term consequences for Uttarakhand's sports growth from this move toward more structured, competitive training at the local level. Furthermore, it is anticipated that rural areas, where sports are frequently not viewed as a professional path, would take notice of the National Games' success in promoting sports as a viable career alternative. The games would inspire kids to strive for athletic greatness and increase community support for sports by highlighting the achievements of athletes from rural Uttarakhand (Desai, 2022).

4. Green Legacy Initiative:

The Green Legacy Initiative, which Uttarakhand has launched for the 38th National Games as part of its dedication to sustainability, attempts to combine the spirit of athletic excellence with environmental preservation. Each medal winner will have a tree planted as part of the program, signifying their individual accomplishment as well as the state's commitment to protecting the environment. This eco-friendly initiative accomplishes several goals. First of all, it supports Uttarakhand's overarching objectives of increasing its green cover and halting environmental deterioration, especially in light of issues like deforestation and climate change. Every medal earned will support the ecological health of the state, giving the competition a concrete and enduring legacy. This not only strengthens the link between environmental

stewardship and sports, but it also gives players a purposeful means to leave a legacy that goes beyond their sporting accomplishments. Every tree that is planted will be carefully chosen for its environmental advantages and compatibility with the varied natural terrain of Uttarakhand. In order to create green spaces that may benefit local communities by enhancing air quality, fostering biodiversity, and offering recreational opportunities for future generations, the trees will be thoughtfully placed around parks, sports facilities, and public places. Additionally, this program will increase participants' and the general public's understanding of the significance of sustainable behaviors. By explicitly connecting environmental preservation to the National Games, the state highlights the potential for sustainability and athletics to coexist. The tree-planting initiative also helps players develop a sense of accountability by motivating them to consider the long-term effects of their success on the environment in addition to their on-field accomplishments. (Uttarakhand Forest Department, 2024). Incorporating such green initiatives will also send a strong message to the nation and the world that Uttarakhand is not only a sports destination but also a leader in promoting eco-friendly and sustainable practices in large-scale events.

5. Biodegradable Medals:

Medals given out at big athletic events are often composed of metals like gold, silver, and bronze, which not only take a lot of resources to make but also, since they are not biodegradable, eventually contribute to environmental damage. Introducing biodegradable medals for the 38th National Games, Uttarakhand is the first state to use such environmentally friendly innovations in a major sporting event, setting the standard for lowering the ecological footprint of major sporting events and encouraging greener practices in the sports industry. The biodegradable medals will be made from natural materials such as recyclables, plant-based polymers, and other sustainable resources. These materials won't harm the environment in the long run because they are designed to break down organically over time. This innovative approach not only minimizes waste but also effectively conveys the importance of sustainability in the sports sector. The move to biodegradable medals is part of a broader effort to lessen the environmental effect of the National Games. By eliminating the need for energy-intensive and environmentally harmful metal mining, refining, and production processes, the initiative contributes to a reduction in the event's overall carbon emissions. Furthermore, the biodegradable medals remove the chance of long-term garbage buildup, in contrast to traditional medals that may eventually end up in landfills. The use of natural materials also reduces the need for minerals and precious metals that are often taken from the land, which is in keeping with Uttarakhand's goal to reduce resource depletion and promote the use of sustainable alternatives. Furthermore, by prioritizing the environmental impact of a large event like this, the state is setting a new standard for how sports events might be prepared with respect to the environment. Reminding players and viewers that their celebrations and achievements are in sync with nature will serve to reinforce the idea that environmental stewardship and sporting prowess can coexist. This initiative also reflects the state's efforts to set an example for how athletic events should be planned in an environmentally responsible manner. It is expected that Uttarakhand's initiative would inspire other governments and organizations to incorporate similar sustainable methods into their sporting events. Given its growing popularity, major national and international sporting events may start using biodegradable medals. If this idea is successful, it may pave the way for more developments, such as the usage of recycled or repurposed materials in other forms of infrastructure and athletic goods. The biodegradable awards will also serve as a reminder to future generations of athletes, coaches, and supporters that every sporting achievement should be celebrated while also considering its environmental impact. The study illustrates how eco-friendly solutions might be quite important in the sports industry itself. In conclusion, by becoming the first to use biodegradable medals, Uttarakhand is not only enhancing the National Games experience but also furthering a global conversation on the necessity of sustainability in big events (Ministry of Environment, 2024).

6. Green Crackers for Inauguration:

Green crackers, as opposed to conventional pyrotechnics, are being used in Uttarakhand to provide a fun and ecologically conscious opening to the 38th National Games. This program makes sure that the event's grand opening doesn't cause a lot of noise or air pollution, which is in line with the state's larger commitment to sustainability and pollution management. The usage of green crackers sets a standard for next athletic events by striking a balance between celebration and environmental responsibility. Compared to traditional pyrotechnics, green crackers are a more modern invention designed to lessen air and noise pollution. Green crackers are made to spew 30–40% less pollutants than typical pyrotechnics, which include high quantities of dangerous gasses including sulfur dioxide (SO₂), nitrogen oxides (NO_x), and particulate matter (PM). Reducing the use of dangerous chemicals, such as barium nitrate, a significant cause of air pollution. They are safer for the environment and human health since they emit less smoke. Creating regulated sound levels to lessen noise pollution and guarantee that everyone, especially vulnerable populations like children, the elderly, and animals, may attend the event (Central Pollution Control Board, 2024). The Central Pollution Control Board (CPCB) established rules for green crackers to make festivities more sustainable, and the Council of Scientific and Industrial Research - National Environmental Engineering Research Institute (CSIR-NEERI) has authorized them (CPCB, 2024). Uttarakhand hopes to preserve the joyous atmosphere of the inauguration while drastically lowering the National Games' carbon footprint by using green crackers. Among the possible advantages are less noise pollution and air pollution. Improved Public Health Results, Promoting Public Awareness and Participation and Signifying Sustainability in Athletic Events. Adding green crackers to the 38th National Games would provide an entertaining and visually stunning inauguration while reaffirming Uttarakhand's commitment to sustainability. The state's commitment to lowering pollution, safeguarding public health, and leading by example for upcoming athletic events around India is demonstrated by this program (Central Pollution Control Board, 2024).

7. Infrastructural Development for Sports

1. **Modernization of Existing Facilities:** The Indian Olympic Association (IOA), the Ministry of Youth Affairs and sporting (MYAS), and the Government of Uttarakhand have embarked on a comprehensive modernization and repair initiative for the state's sporting facilities in anticipation of the 38th National Games. The project is to provide athletes with access to top-notch facilities by modernizing current stadiums, training facilities, and sports complexes to meet national and international standards (Ministry of Youth Affairs and Sports, 2024). The main sports of Uttarakhand, including athletics, shooting, boxing, wrestling, and climbing, are getting specialized training programs (Sharma & Kumar, 2023). Integration of AI-based sports analytics for personalized performance improvement (Tribune India, 2024).
2. **The installation of modern equipment and digital tracking systems:** The sports training facilities in Uttarakhand mark a significant advancement in scientific sports training. Uttarakhand is maximizing athlete performance, reducing injuries, and enhancing coaching techniques by utilizing AI, VR, and biometric monitoring. The state's medal chances should be much improved by these developments, which should also promote long-term sports growth and establish Uttarakhand as one of India's top sporting destinations (Times of India, 2024).
3. **New Sports Complexes and Training Centers:** Building of new multipurpose sports centers in Nainital, Haridwar, and Dehradun (Economic Times, 2024). Construction of high-altitude training facilities for endurance activities, such as climbing and sports (Indian Olympic Association, 2024).
4. **Technology Integration in Sports Training:** Use of analytics powered by AI to monitor performance and avoid injuries (Tribune India, 2024). Development of virtual reality-based simulations for sports training (Uttarakhand State Sports Council, 2024).

8. Environmental Considerations

1. **Ecological Impact of Infrastructure Development:** Large-scale construction projects in the Himalayas pose a significant threat to the fragile ecosystem. These projects often lead to deforestation, habitat destruction, and increased soil erosion, destabilizing the already vulnerable terrain (Times of India, 2024). Moreover, infrastructure development, such as roads and hydroelectric dams, disrupts river ecosystems and accelerates glacial melting due to increased human activity and climate change (Times of India, 2024). Additionally, the Himalayas lie in a high seismic zone, and large-scale construction can exacerbate the risks of landslides and earthquakes, endangering both biodiversity and local communities (Times of India, 2024). Therefore, sustainable development practices and rigorous environmental assessments are crucial to mitigating these impacts. Measures such as eco-friendly stadium designs and efficient waste management systems are essential for reducing environmental harm during large-scale construction projects. Sustainable stadium designs incorporate renewable energy sources, rainwater harvesting, and green building materials to minimize their ecological footprint (Ministry of Environment, 2024). Additionally, proper waste management systems, including recycling and composting, help mitigate pollution and ensure responsible disposal of construction and operational waste (Ministry of Environment, 2024). Implementing these strategies can significantly reduce the negative impact of infrastructure development on the environment.
2. **Sustainability in Sports Events:** Adoption of green energy, waste recycling, and water conservation measures during the games (Tribune India, 2024). The Uttarakhand government has proposed initiatives to offset carbon footprints by increasing green cover around stadiums (Uttarakhand Forest Department, 2024). The concept of biodegradable medals aligns with Uttarakhand's commitment to reducing plastic and metal waste while promoting sustainable sportsmanship (Ministry of Environment, 2024). The introduction of green crackers for the inauguration ceremony will ensure that the event's opening celebration aligns with environmental sustainability goals, reducing harmful emissions (Central Pollution Control Board, 2024).
3. **Balancing Tourism and Environment:** Managing the influx of visitors is crucial to preventing pollution and resource depletion in ecologically sensitive regions like Uttarakhand. Unregulated tourism can lead to excessive waste generation, water scarcity, and habitat degradation, putting immense pressure on local ecosystems (Economic Times, 2024). To mitigate these effects, authorities must implement strict waste management policies, promote eco-friendly accommodations, and regulate visitor numbers in fragile areas. Encouraging sustainable tourism practices is essential for preserving Uttarakhand's natural beauty. Initiatives such as eco-tourism, responsible trekking, and community-based tourism help balance economic benefits with environmental conservation (Indian Eco-Tourism Board, 2024). Sustainable tourism can also empower local communities by promoting traditional livelihoods and raising awareness about environmental protection.

9. Conclusion

The 38th National Games in Uttarakhand represent a transformative opportunity for the state to establish itself as a major sporting hub, enhance its athletic performance, and stimulate economic, social, and environmental progress. With an investment of ₹350 crore, the state is upgrading sports infrastructure and training facilities and integrating sustainable initiatives to align with its environmental goals. From a sports perspective, Uttarakhand's strategic focus on athletics, shooting, and mountaineering, along with specialized training programs and technological advancements, is expected to improve its medal prospects. The adoption of AI-based analytics, VR training simulations, and digital performance tracking will elevate the quality of athlete preparation, ensuring competitive excellence. Economically, hosting the National Games will drive job creation, tourism growth, and business expansion, contributing to regional economic development. The influx of athletes, officials, and spectators will benefit hospitality, transportation, and local businesses, positioning Uttarakhand as a preferred sports and tourism destination. Politically, the event enhances Uttarakhand's visibility on the national stage, attracting further government and private investments in sports development. Environmental

sustainability remains a core focus, with initiatives such as biodegradable medals, tree-planting for medal winners, and green crackers for inauguration, reinforcing the state's commitment to ecological conservation. Efforts to minimize the environmental impact of infrastructure projects while promoting eco-friendly sports practices will set a benchmark for future national events. In conclusion, Uttarakhand's hosting of the National Games 2025 catalyzes holistic growth, blending sports excellence, economic development, environmental sustainability, and cultural integration. If managed effectively, this event has the potential to reshape Uttarakhand's sports landscape, leaving a lasting legacy of progress, inspiration, and global recognition.

References

- Central Pollution Control Board (CPCB). (2024). *Guidelines on Green Crackers and Eco-Friendly Fireworks*. Government of India. Retrieved from www.cpcb.nic.in
- Central Pollution Control Board. (2024). *Guidelines on Green Crackers and Eco-Friendly Fireworks*.
- Council of Scientific and Industrial Research - National Environmental Engineering Research Institute (CSIR-NEERI). (2024). *Research on Green Crackers: Pollution Control in Fireworks*. Retrieved from www.csir.res.in
- Desai, A. (2022). *Sports and Society: The Role of National Games in Cultural Integration*. Routledge.
- Dubey, A. (2022). Economic impact of sports events in Indian hill states: A regional analysis. *Indian Journal of Regional Development*, 14(2), 89-105.
- Economic Times. (2024). *Balancing Economic Growth and Environmental Conservation in Uttarakhand*.
- Economic Times. (2024). *Balancing Festivities and Environment: Green Crackers at Uttarakhand's National Games Opening*. Retrieved from www.economictimes.indiatimes.com
- Indian Eco-Tourism Board. (2024). *Sustainable Tourism Strategies for Uttarakhand*.
- Indian Olympic Association (IOA). (2024). *Official Reports on National Games Preparation*. Retrieved from www.ioaindia.org
- Joshi, K., & Thapliyal, S. (2019). Environmental costs of infrastructure development in Himalayan states. *Ecology and Development Review*, 16(4), 73-88.
- Ministry of Environment, Forest, and Climate Change (MoEFCC). (2024). *National Strategies for Sustainable Event Management: Reducing Environmental Impact*. Government of India.
- Ministry of Environment. (2024). *Sustainability Measures in Indian Sports Events*.
- Ministry of Youth Affairs and Sports (MYAS). (2024). *Government Policies on Sports Development in Uttarakhand*. Government of India.
- Ministry of Youth Affairs and Sports. (2024). *Government Policies on Sports Development in Uttarakhand*.
- Sharma, P. (2020). Sporting success and political symbolism in India. *Journal of Socio-Political Studies*, 27(3), 112-128.
- Sharma, R., & Kumar, P. (2023). *Sports Development in India: A Regional Perspective*. Oxford University Press.
- Singh, V., & Rawat, R. (2021). Adventure tourism and sports: New frontiers for Uttarakhand's tourism economy. *Tourism Studies Quarterly*, 9(1), 34-49.
- Times of India. (2024). *National Games: Infrastructure Growth and Economic Benefits*.
- Times of India. (2024). *Uttarakhand National Games to Feature Green Crackers in Grand Opening Ceremony*. Retrieved from www.timesofindia.indiatimes.com
- Tribune India. (2024). *Eco-Friendly National Games: Uttarakhand Sets a Benchmark in Sustainable Celebrations*. Retrieved from www.tribuneindia.com
- Tribune India. (2024). *Technology and Sports: AI-based Training and Performance Tracking in India*. Retrieved from www.tribuneindia.com
- Tribune India. (2024). *Tourism and Sports: A Boost for Uttarakhand's Economy*.
- Uttarakhand Forest Department. (2024). *Green Initiatives for National Games 2025*.
- Uttarakhand State Sports Council. (2024). *Sports Infrastructure and Technological Advancements in Uttarakhand*.