



## Assessment Of Demand For Recreational Sports Personnel In Baturraden Tourism Area Banyumas

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### ABSTRACT

**Purpose of the study:** This study aims to identify the composition and needs of recreational sports personnel in Lokawisata Baturraden to support service quality and operational safety in recreational facilities.

**Methodology:** This research applied a descriptive qualitative method using the Miles and Huberman model for data analysis. Data were collected through observation, interviews, documentation, and literature review. Tools included structured interview guides and dichotomous questionnaires analyzed manually.

**Main Findings:** There were 17 recreational sports personnel managing four main facilities: slide pool, paddle boat, flying fox, and water boom. Only flying fox personnel held relevant certificates. Other facilities lacked certified or appropriately gender-diverse staff. Female personnel were notably absent where needed for safety and visitor support. Educational qualifications were mostly limited to senior high school.

**Novelty/Originality of this study:** This study provides a practical workforce needs analysis for recreational sports tourism in a natural tourism setting. It identifies competency gaps and safety risks, offering recommendations for recruitment and certification strategies to improve visitor service and safety in recreational destinations.

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## 1. INTRODUCTION

Tourism is one of the key sectors in national and regional economic development, providing not only entertainment and recreation for visitors but also employment opportunities and cultural promotion. In Indonesia, the abundance of natural attractions spread across 17,000 islands has positioned tourism as a strategic pillar of development [1]-[3]. One such destination is *Lokawisata Baturraden*, located in Banyumas Regency, Central Java. Positioned at the foot of Mount Slamet, this site is known for its natural beauty and variety of recreational attractions, including water slides, paddle boats, flying fox rides, and water parks [4], [5]. With an annual average of over 300,000 visitors, and surges up to 25,000 people during holidays, proper human resource management in recreational services becomes crucial [6], [7].

Despite the growing demand, Lokawisata Baturraden is reportedly lacking in adequate and qualified personnel in the field of recreational sports management [8], [9]. From a total workforce of 65 employees, only 17 are assigned to recreational facilities far below what is needed for effective supervision and service. Moreover, a mismatch exists between the quantity, quality, and competence of the available personnel [10]-[12]. Many staff

members do not hold formal certifications or training relevant to recreational sports operations, such as life guarding, equipment handling, and emergency response. Some facilities, such as the water slide and water boom, are also missing female staff needed to appropriately handle gender-specific safety concerns [13], [14]. These gaps can lead to significant risks in operational safety, reduce visitor satisfaction, and compromise the professional image of the destination.

Literature supports that recreation and physical activity tourism require not only quality infrastructure but also trained and certified human resources to ensure service excellence [15], [16]. According to Watt [17], competent recreational sport personnel are essential for selecting and delivering appropriate physical activities to participants. When managed well, these activities provide physical renewal and psychological relaxation, key objectives of recreational tourism. However, as shown in previous research by Saputra [18] and Hidayat et al. [19], many tourism sites in Indonesia still lack a professional system for workforce planning in the recreational sector. This study contributes by addressing that gap specifically within the context of a natural tourism site.

Therefore, this research aims to examine the current composition and adequacy of recreational sports personnel at Lokawisata Baturraden. It identifies which areas are understaffed, evaluates the competencies of the existing workforce, and provides recommendations for future recruitment and development based on national standards and visitor safety requirements. The novelty of this research lies in its contextualized human resource analysis within a tourism setting, offering insights that intersect sport science, tourism management, and public service delivery.

The gap between this study and previous studies lies in the differences in scope, focus area, and underlying objectives. This study is based in a localized applied context, examining the specific demand for recreational sport professionals in a leading tourism destination [20]. It aims to identify workforce needs that can support tourism development and enhance visitor experiences through sport-based recreation. Meanwhile, previous studies have focused on evaluating sport management curricula from an academic and institutional perspective, aiming to align educational programs with broader industry expectations and professional competencies [21]-[23]. While both address “needs assessment” in sport, this study is demand-driven and detached from regional tourism development, whereas previous studies are supply-driven, focusing on the adequacy of educational readiness. This represents a significant research gap: there is limited integration between the real-world demand for sport professionals in the tourism context and how academic programs are designed to meet those needs. Bridging this gap is critical to ensuring that sport education is responsive to the evolving demands of the industry, particularly in tourism regions that rely heavily on recreation-based services [24], [25].

The novelty of this study lies in its localized and sector-specific focus on assessing the demand for recreational sports personnel within a tourism destination Baturraden, Banyumas an area that is often overlooked in national tourism and sports labor planning [26]-[28]. Unlike broader studies on sport management or workforce development, this research specifically targets the intersection of tourism and recreational sport services, identifying the unique human resource needs required to enhance visitor experience and diversify tourism offerings. By anchoring the analysis within a real-world, high-potential tourist area, the study introduces an original contribution to both tourism development and sport labor research, offering insights that are practical, contextually grounded, and immediately applicable for regional planning and workforce alignment [29], [30].

The findings of this research have direct implications for regional tourism authorities, local government, and educational institutions. By identifying the specific competencies and personnel gaps within the recreational sports sector, the study provides a strategic foundation for workforce development initiatives tailored to Baturraden's tourism growth. It suggests that aligning vocational training, recruitment, and sport management education with localized demand can significantly enhance the quality and appeal of tourism services [31]. Furthermore, the study informs curriculum developers and policymakers on the types of skills and professional profiles most urgently needed in emerging tourism hubs, enabling a more effective match between supply (graduates) and demand (industry needs) in the regional labor market.

This study is urgently needed in light of the increasing importance of experience-based tourism and the rising demand for active, wellness-oriented travel activities in post-pandemic recovery [32]. Baturraden, as one of Central Java's prominent tourist destinations, holds great potential for recreational sports development, yet lacks sufficient professional human resources to support such offerings. Without proper assessment and strategic workforce planning, the region risks underutilizing its natural assets and losing competitiveness to more prepared destinations. Therefore, this research is critical for guiding immediate policy action and investment in human capital, ensuring that Baturraden can meet visitor expectations, stimulate local employment, and contribute sustainably to regional tourism advancement.

## 2. RESEARCH METHOD

This study employed a descriptive qualitative research design. The purpose of this design was to systematically describe and interpret the current condition of human resource availability in the recreational sports sector at *Lokawisata Baturraden*. The study focused on analyzing staff composition, qualification, and alignment

with the operational needs of the recreational facilities such as water slides, paddle boats, flying fox, and water boom.

The population in this research included all staff members working at *Lokawisata Baturraden*, especially those involved in recreational sports services. The study specifically focused on personnel within the productive age range of 30 to 60 years. This group was selected because it represents middle adulthood, a stage associated with mature cognitive, emotional, and professional competencies.

Data collection was conducted using four primary techniques: observation, semi-structured interviews, document analysis, and literature review. Observations were conducted directly at the recreational activity zones. Interviews involved the Head of UPT Baturraden, administrative heads, and relevant personnel. Document analysis included organizational charts, staffing records, and official visitor reports. Literature review supported the theoretical and contextual understanding of workforce requirements in recreation management.

The research utilized dichotomous questionnaires and structured interview guides as its primary instruments. These instruments were designed to capture respondent profiles, including age, gender, education, length of service, certification, and assigned duties. The indicators used in the instruments were based on national standards for recreational facility management and adjusted to the local operational context.

Table 1. Research Instrumens

Indicator	Measurement Criteria
Age	Productive range (30–60 years)
Gender	Male/Female
Educational level	SD, SMP, SMA, S1 (Elementary to Bachelor)
Length of service	<10 years, 11–20 years, >20 years
Certificate/license	Available/Not Available

The study used the Miles and Huberman interactive model for qualitative data analysis. The analysis process involved three core steps: (1) data reduction by categorizing key observations and responses, (2) data display using matrices, pie charts, and tabulations for clarity, and (3) conclusion drawing and verification to identify patterns, relationships, and staffing gaps. This approach ensured data integrity and facilitated systematic interpretation of the findings.

The research procedure was conducted in several stages. It began with preliminary observations and literature review to refine the research focus. The next phase involved fieldwork, including visits to the site, conducting interviews, distributing questionnaires, and collecting documentation. This was followed by data coding, tabulation, and qualitative interpretation. The final phase was verification and report writing, where findings were cross-checked against operational standards for recreational sports personnel.

Table 2. Schedule of the research activities is summarized

Research Phase	Time Period
Proposal development	April – Early May
Field permit arrangement	Mid May
Site survey & data taking	Mid to Late May
Data processing & analysis	Late May – June

### 3. RESULTS AND DISCUSSION

This section presents the findings of the study conducted at *Lokawisata Baturraden* and discusses the adequacy, qualifications, and composition of recreational sports personnel in four primary recreational facilities: water slide, paddle boat, flying fox, and water boom. The results are presented using tables and diagrams, followed by a comprehensive interpretation of the implications.

#### 3.1. Composition and Competency of Personnel in Recreational Facilities

The overall composition of personnel assigned to recreational sports at *Lokawisata Baturraden* in 2016 includes 17 staff members. The distribution and qualifications vary across facilities, with some areas meeting operational needs while others fall short of both personnel quantity and certification standards.

Table 3. Recreational Sports Personnel Composition by Facility

Facility	Total Staff	Certified Staff	Female Staff	Fully Staffed
Water Slide	3	0	0	No
Paddle Boat	7	0	1	Yes
Flying Fox	3	3	0	Partially
Water Boom	3	0	1	No

As shown in Table 1, the flying fox is the only facility where all staff members possess relevant certifications. However, the absence of female staff for visitor safety protocols leaves this facility only partially compliant. The water slide and water boom facilities are critically understaffed in terms of certified personnel, and both lack female staff altogether.

### 3.2. Analysis of Staff Certification and Education

The results indicate a systemic gap in staff training and certification. Most staff members hold only a senior high school diploma (SMA), and except for those managing the flying fox, no other staff members possess formal licenses or certificates relevant to their respective facility.

Table 4. Staff Qualification Summary

Facility	SMA Graduates	Certified Staff
Water Slide	3	0
Paddle Boat	5	0
Flying Fox	2	3
Water Boom	2	0

The flying fox facility demonstrates a best practice case where certification aligns with operational standards. In contrast, the water slide and water boom areas have critical gaps, especially since these are water-based attractions requiring life-saving competencies.

### 3.3. Discussion of Gender and Safety Considerations

One of the central findings in this study is the lack of gender diversity in the staffing composition. In facilities like the water slide and water boom, the absence of female staff poses safety and service challenges when responding to incidents involving female visitors. As Ref [3] emphasizes, inclusive staffing policies are essential in public recreational settings to ensure appropriate and responsive care.

Furthermore, the mismatch between operational needs and staff profiles highlights the necessity for human resource planning based on both technical and demographic criteria. Ref stresses that a well-trained, gender-inclusive team improves both safety and visitor satisfaction in active tourism environments. Based on the findings of the study, several key recommendations are proposed to enhance the quality and safety of recreational tourism services at Lokawisata Baturraden. Firstly, it is essential to prioritize the recruitment of certified personnel, particularly for facilities with high-risk activities such as the water slide and water boom. These areas should be staffed with lifeguards and operators who possess valid certifications and have undergone relevant training in water safety and emergency response. Secondly, ensuring a gender-balanced workforce is crucial in fostering visitor trust and comfort, especially in water-based attractions. Management should make deliberate efforts to recruit more female staff to meet these expectations. Thirdly, there is a strong need for ongoing training programs that align with established Standard Operating Procedures (SOPs) in recreational management, ensuring that staff maintain a high level of competence and preparedness. In addition, the formalization of qualification requirements must be implemented, making certification and licensing mandatory for staff assigned to facilities with higher safety risks. Overall, the study highlights that while some operational zones at Lokawisata Baturraden are sufficiently staffed in terms of quantity, there are notable shortcomings in terms of staff qualifications and safety preparedness. Addressing these gaps through structured policies and continuous training will significantly contribute to improving the standard and safety of recreational tourism in this prominent national destination.

The difference between this study and previous studies lies in the differences in research findings related to tourism planning and development. This study focuses on identifying human resource needs specific to sports recreation in the context of local tourism, highlighting gaps in qualified personnel, training systems, and local workforce readiness in Baturraden. Its findings emphasize the alignment of practical workforce and improvement of service delivery to meet increasing tourist expectations [33], [34]. In contrast, the previous study offers a macro-level spatial analysis of eco-sports tourism development, examining the integration of environment, land use patterns, and regional strategic planning within large-scale cultural and ecological corridors. While this second study addresses sports tourism, it focuses on demand-driven personnel needs within a micro-regional environment, whereas the previous study explored spatial and ecological planning within a broad territorial scope. This creates a clear research gap: there is limited dialogue between human capital planning and spatial-environmental development in sports tourism [35], [36]. Bridging this gap could lead to a more comprehensive strategy that aligns ecological ecosystems with service capacities, ensuring that infrastructure and human resources develop together to support integrated and long-term tourism development.

The novelty of this study lies in its targeted assessment of human resource demands specific to recreational sports within a localized tourism setting Baturraden, Banyumas. Unlike broader research that focuses on spatial planning, eco-tourism development, or general tourism infrastructure, this study uniquely concentrates on identifying the specific qualifications, competencies, and service roles needed to support recreational sports in a popular but underdeveloped tourist destination [37], [38]. By addressing workforce readiness and employment

alignment in the context of regional tourism growth, the study offers a new layer of insight into how human capital can be strategically developed to complement and enhance destination competitiveness, especially in rural or secondary tourism areas.

The findings have significant implications for local tourism planners, sport and recreation managers, vocational institutions, and policymakers. The research underscores a clear disconnect between current tourism development efforts and the availability of qualified personnel to deliver quality recreational sports services. This insight calls for the integration of workforce development into regional tourism planning strategies. It also suggests that vocational training programs should be tailored to the specific demands of growing tourist destinations like Baturraden, ensuring that educational outputs align with real industry needs. Additionally, the study provides a framework that other local governments can adopt to assess and fulfill similar labor gaps in tourism-related sectors across different regions.

Despite its practical relevance, the study has some limitations. It is geographically limited to the Baturraden area, making its findings context-specific and potentially less applicable to other tourism destinations with different profiles or economic structures. The study also focuses primarily on current demand without fully exploring long-term projections, spatial planning integration, or environmental considerations that may influence the growth of recreational sports tourism. Moreover, while it assesses personnel needs, it does not evaluate the institutional readiness—such as funding availability, policy support, or training infrastructure—to address these gaps. Future studies should expand the geographical scope, incorporate spatial and environmental planning dimensions, and examine systemic barriers to workforce development for a more holistic understanding.

#### 4. CONCLUSION

The study concludes that although certain operational areas in Lokawisata Baturraden are adequately staffed in terms of quantity, there are significant gaps in staff qualifications and safety preparedness, particularly in high-risk facilities. Therefore, improving service quality through the recruitment of certified personnel, continuous training, and standardized qualification requirements is essential to ensure safety and enhance the overall quality of recreational tourism services.

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