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Infrastructure and Facilities for Para Sports in Eastern India: A Framework towards Mission Paralympic 2036

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Abstract

Background: Para sport in India has developed considerably since winning its first medal in the Paralympics in 1972. In Paris 2024, India won a record number of medals (29). With 'Mission Paralympic 2036' on the horizon, it is important to understand how para sport has developed within the country. There are 21 categories of disability recognised under the Rights of Persons with Disabilities (RPwD) Act (2016), and there are responsibilities placed upon Governments and sporting authorities to ensure individuals with disabilities have access to sport.

Objective: Understand the evolution of Para sports in relation to the global Paralympic movement and current administrative structures, policy support and facilities in place within India. Identify key priorities for Mission Paralympic 2036, by focusing on Eastern regions (West Bengal, Bihar, Jharkhand, Odisha).

Methods: Documentary analysis using data from the International Paralympic Committee, Paralympic Committee of India, Sports Authority of India, RPwD Act 2016, and published literature.

Findings: With support from the PCI, Government initiatives and standardized classification systems, athlete numbers in India have increased significantly from 10 in 1968 to 84 in Paris 2024. However, specialist facilities remain limited to a few locations in the country, including Gandhinagar, Gwalior, Bengaluru, Sonepat and New Delhi. While each state in Eastern India has an association linked to the PCI, facilities within them seem limited and unequal. Issues around lack of funding, and poor understanding of rights amongst athletes, particularly in rural regions, were common.

Conclusion: To achieve Mission Paralympic 2036, greater infrastructure is required in eastern Indian region, more appropriate training and support in coaching and classification and primary information about the availability and suitability of facilities to inform policy.

Keywords: Para sports; Paralympic; Mission Paralympic 2036; Infrastructure; Facility; Eastern India

1. Introduction

Sport is very popular in society. It can improve physical health, mental wellbeing, can be entertaining, reduce stress, aid recovery and create inclusivity in society to improve overall societal development. It

can be played by any age, and of any gender, and can give athletes confidence, leadership skills and team work. Para athletes taking part in para sports are just as significant (if not more so) within society. This article will focus on mission paralympic 2036 in Eastern India. Para sport is becoming increasingly popular, and has developed substantially. At the highest level, para sport takes place at the Paralympics (Brittain, 2025). More people are taking part in para sports. Within para sport, classification systems, selection processes, facilities, and equipment are all improving (Mauerberg-deCastro et al, 2016; Tweedy & Vanlandewijck, 2011). Originally, para sport was simply used for recovery and entertainment within patients, however, para sports have progressed to become very competitive (Guttmann, 1976; McCann, 1996; Scruton, 1998; Brittain, 2012). Since para sport has increased in popularity within countries and globally, many centres have been created to train para-athletes. These facilities allow people of all abilities to participate in sport and have inspired people within the non-disabled community. With increasing success in Paralympics in recent times (more medals won in the past 2 decades as compared to all preceding decades), the Indian government places greater importance on para sports. As per the RPwD Act, 2016, there are 21 categories of disability acknowledged by the Indian government. People belonging to any of the 21 categories mentioned above can take part in para sports if they satisfy certain requirements. Through sport, people with disabilities can benefit in various ways including; education, funding, awards/acknowledgement and employment. In this study, infrastructure and resources provided for people with disabilities to participate in para-sports have been examined. The support given by the government internationally, nationally (in India) and specifically within the Eastern regions of India has been explored in order to enable people with disabilities to gain physical empowerment, social inclusion and competitive excellence. People with disabilities are given an opportunity to showcase what they are capable of, become well known within the world and alter the perception society has towards disability. It is evident that the ability of para-athletes has significantly increased over time (Ghosh and Chatterjee, 2023; Jaarsma et al., 2014). Para-sports should be supported with the appropriate provision of specific trained staff and facilities to allow for a positive environment. Injury prevention techniques, safe equipment and support for rehabilitation should also be provided.

2. Background

2.1 The Rights of Persons with Disabilities (RPwD) Act, 2016

Although there is no specific section on sports in the RPwD Act (2016) (Government of India, 2016), there are multiple relevant sections. For example,

section 16 states that schools and colleges with public funding or recognition must not discriminate against people with disabilities. In order to allow students with disabilities equal opportunities in education, sport and leisure, these schools or colleges must be made accessible. Reasonable adjustments, and assistance with transport, must also be provided.

Section 29 asks governments to ensure equal access to culture and recreation. This includes providing support in recreational facilities, outdoor activity and assistive technology.

Section 30. Governments and sporting bodies must allow disabled people to participate in sport. Schemes must be put in place to provide talent development opportunities for disabled people. Changes must be made to infrastructure. Funding must be provided to allow modern training environments; there should be specific competitions and awards for disabled people.This provides a legal representation of the United Nations Convention on the Rights of Persons with Disability within Indian Law. The most relevant sections of the act relating to para sport are summarised in table 1.

Table 1. Provisions of the RPwD Act, 2016 relevant to para sport (summarised from Government of India, 2016).

Section	Subject	Requirement relevant to sport
16	Schools and colleges receiving government funding or recognition	Admit children with disabilities without discrimination; give equal chances in education, sport and recreation; make campuses accessible; provide reasonable accommodation and transport.
29	Cultural and recreational life	Governments to protect equal participation, including support for recreation centres, outdoor activities and assistive devices.
30	Sports	Governments and sports authorities to ensure participation and inclusion in talent-development schemes; adapt infrastructure, fund modern training facilities, and organise disability-specific events and awards.

2.2 Concept of Para-Athletes and Para-Sports Infrastructure

A person who has a mental, visual or physical impairment and meets the classification requirements set by the Paralympics can be regarded as a para-athlete (Tweedy & Vanlandewijck, 2011). Challenges faced by people with disabilities are more extensive than those faced by people without disabilities. It is still common for people with disabilities to be perceived in society as having little to offer and not being able to contribute to progression within society. As a result, people with disabilities may be excluded from social events. In society people with disabilities are still referred to using derogatory terms such as ‘cripple’ or ‘handicapped’. Sometimes people with disabilities are blamed for previous sins in life, due to cultural or religious beliefs. This causes huge damage to people with impairments.

Due to increased awareness of para sport in recent years, para-athletes have come to be seen as talented individuals, rather than pitiable. Investments by public and private sectors have been made in para sport. Many para-athletes are supported by private sponsors. Investment by the public sector includes the SAI National Centre of Excellence Scheme (2019) in Gandhinagar. This has now been identified as the Nodal Centre for Para Sports. The aim of this project was to provide funding, good facilities, elite training, better rehabilitation and accommodation, assistance with classification, access to coaches and athlete development for Paralympic athletes. To participate in and excel in para sport, it is important that access to suitable sporting facilities, such as wheelchair friendly roads, facilities, modified equipment, trained coaches, medical support and inclusive policies is present. Whether this is the case in India will be investigated in this study.

3. Findings

3.1 Infrastructure and Facilities Available for Para-Athletes in India

Compared with able-bodied sport, para-sports infrastructure in India remains limited. The key national facilities are listed in Table 2.

Table 2. Key national facilities for para sport in India.

Centre and location	Description of facilities and use
SAI National Centre of Excellence (NCOE), Gandhinagar, Gujarat	Currently the nodal centre for para sports in India, offering excellent infrastructure and facilities for para-athletics, para-badminton, para-swimming, para-fencing, para-powerlifting, and para-table tennis, together with a strength and conditioning hall, a multipurpose training hall, and athlete accommodation.
Atal Bihari Vajpayee Training Centre for Disability Sports (ABVT-CDS), Gwalior, Madhya Pradesh	India's first high-tech sports training centre dedicated specifically to athletes with disabilities. According to government announcements, para-athletes from across India may train and reside here. Facilities include an outdoor athletics stadium, an indoor sports complex, two swimming pools (one covered, one outdoor), a high-performance centre, a sports science centre, medical facilities, an athlete hostel, accessible lockers and support facilities, classrooms, research facilities, and venues for national and international competitions.
SAI Netaji Subhas Southern Regional Centre (NSRC), Bengaluru, Karnataka	An important inclusive training venue offering an athletics track, basketball courts, football and hockey grounds, tennis courts, volleyball courts, and a 50m swimming pool.
SAI National Centre of Excellence (NCE), Sonepat, Haryana	Offers archery, athletics, hockey, kabaddi, and wrestling facilities, together with coaching camps for para-athletes.
Multi-SAI Centre, New Delhi	Provides a broad para-sports training and competition ecosystem, including stadiums and facilities for swimming, shooting, and cycling.

3.2 Para-Sports Facilities in the Eastern Region of India

Table 3 lists the main para-sports facilities identified in the Eastern region.

Table 3. Para-sports facilities in the Eastern region of India.

Facility and location	Description of facilities and use
Kalinga Stadium, Bhubaneswar (Odisha)	Offers excellent facilities for para-athletes with visual, intellectual, and physical disabilities, including training, coaching camps, competitions, and talent-identification programmes.
SAI Netaji Subhas Eastern Regional Centre (NSEC), Kolkata (West Bengal)	Hosts competitions and training camps for para-athletes across selected sports. Facilities include an athletics track, a swimming pool, football grounds, hockey fields, basketball courts, an archery field, and indoor facilities. Originally built for able-bodied athletes, the centre is now also used for para-sports training.

Facility and location	Description of facilities and use
Patna, Bihar	Unlike other states, Bihar does not have a single centralised facility; instead, various districts — including Araria, Arwal, Aurangabad, Banka, Begusarai, and Bhojpur — host individual sports centres. These districts primarily support para-athletics, powerlifting, para-badminton, table tennis, and archery, while Bhagalpur is notable for its chess training centre.

3.3 State-Level Para-Sport Organisation and Athletes in Eastern India

Each Eastern state has a state-level para-sport body. Table 4 summarises the bodies, their sports and the athletes named in the sections that follow.

Table 4. State para-sport bodies, sports and athletes named in the text, Eastern India.

State	State body	Structure and sports	Athletes named in the text
West Bengal	Bengal Paralympic Association / Bengal Para Sports Association	Sport-specific associations: wheelchair fencing (joined 2015), para-badminton, para-swimming (discontinued 2017), para-powerlifting, para-athletics	Sakina Khatun, Saheb Hussain, Rubia Chatterjee Das, Ali Imam, Bulti Roy and other PCI-classified athletes
Bihar	Bihar Para Sports Association (BPSA), Government of Bihar	38 district associations and 9 regional units; athletics, powerlifting, badminton, table tennis, archery	Sharad Kumar, Shailesh Kumar, Jhandu Kumar
Odisha	Para Sports Association of Odisha (PSAO)	Para-badminton, para-athletics, para-archery, para-powerlifting	Pramod Bhagat, Payal Nag
Jharkhand	Para Sports Association of Jharkhand (PSAJ)	Younger body with a formal structure; para-athletics, para-badminton, para-powerlifting, para-swimming, para-archery	Kajal Kumari, Mahima Oraon, Anand Mahato

3.3.1 West Bengal

As part of the national progression within para sports, West Bengal has formed. There are currently 26 state associations within the Paralympic Committee of India (PCI) (Paralympic Committee of India, n.d.), in addition to many sport specific and national para sport federations. West Bengal has a recognized state association in the form of the Bengal Paralympic Association/Bengal Para Sports Association. However, West Bengal does not have a large contribution to para sport success in comparison to other states, for example Haryana. There is no reliable official source to give an exact date on when West Bengal started para sports. However, it appears that progression has been slow within West Bengal since the creation of the PCI. West Bengal appear to have joined para sports around the year 2000. In 2004 the 5 th National Para Swimming Championships were held in Kolkata. In 2005 the 1st National Para Water Polo Championships took place. Paralympic Committee of India, followed

by a state level organization (West Bengal), then specific sports associations within the state, and finally clubs, coaches and athletes at the district level. Specific sports associations in West Bengal are, such as (i) West Bengal Wheelchair Fencing Association (joined wheelchair fencing movement in 2015). (ii) Bengal Para Badminton Organization. (iii) Para swimming (established 25 years ago, but was ceased in 2017). (iv) Para power lifting. (v) Para athletics. This structure can be seen in Figure 1.

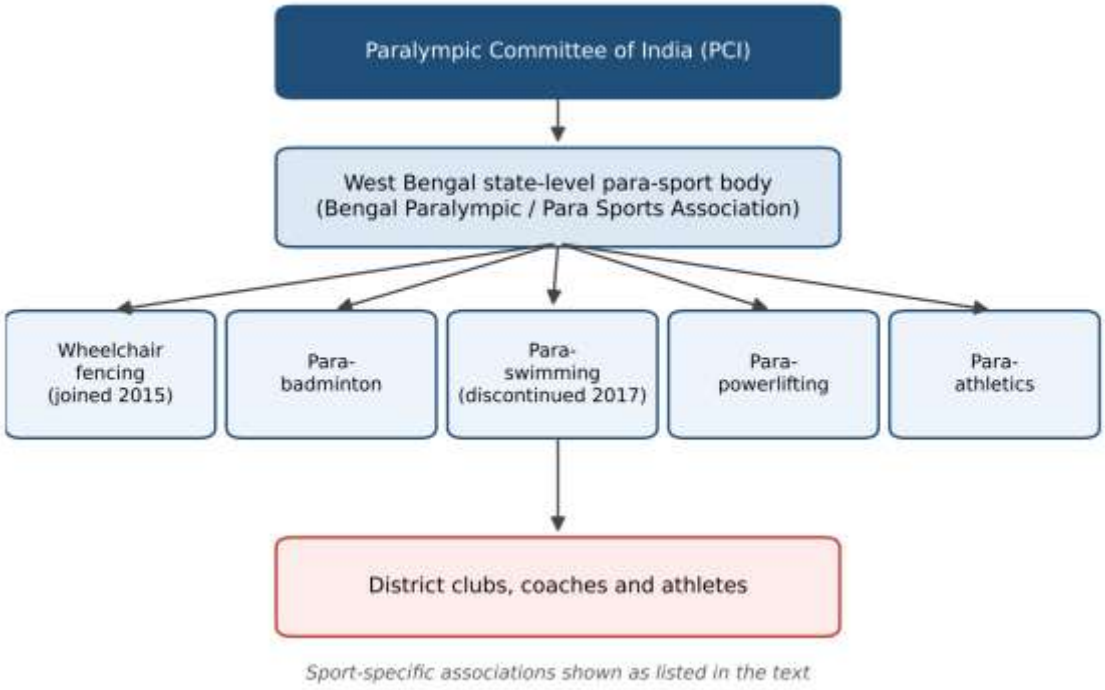

Figure 1. Organisational hierarchy of para sport in West Bengal, (PCI)

Various non-governmental organizations operate within the para-sports scene in West Bengal. The Civilian Welfare Foundation (CWF) in Kolkata has organized wheelchair cricket, multi disability football and blind football. The Para Sports Foundation (PSF), also based in Kolkata, also volunteers in promoting and organizing para sport events. These include wheelchair cricket. Christian Blind Mission (CBM) India Trust support para-athletes in para-badminton, wheelchair tennis, para-shooting, para-athletics and para swimming. The Indian Blind Sports Association (IBSA) hosts an East Region coaching programme for blind para-athletes in Kolkata. Sakina Khatun (women's 50kg class) is a para powerlifter from West Bengal who competed at Tokyo 2020 Paralympic games for India, finishing in 6th places. Saheb Hussain and Rubia Chatterjee Das are both highly competitive international para-athletes from Bengal in classes T12 and F44 respectively. While there are many para-athletes from Bengal that compete on an international level, many have fallen just short of the podium due to a lack of funding. Ali Imam (S12) participated in the men's S13 100m freestyle race in the 2026 Commonwealth Games in Glasgow, placing 7 th (ANI, 2026; The Bridge, 2026). Bulti Roy, another Para Athlete from West Bengal, has competed for India and has won medals. Other Para Athletes from West Bengal who fall under the categories of PCI are Ramesh Hembram (T44/F44), Souvik Kar (T54/F54), Sumanta Murmu (F57), Dolly Kayal (F53), Soumita Saha Dey (F56), Gabinda Roy (T46/F46), Manti Mahanta (T46/F46), Ranjit Garai (T46/F46), Samir Biswas (T36/F36), Shubhajit Chowdhury (T13/F13), and S.K. Asmaul

Hoque (T42/F42). Tashkura Khatun, an international Para Swimmer, is known to have represented West Bengal. However, records could not be found to verify this fact.

3.3.2 Bihar

There is a Para-Sports organisation in Bihar called Bihar Para Sports Association (BPSA). This organisation has been set up within the Government of Bihar and aims to develop Paralympic sports in the region. There are now Paralympic sporting opportunities across Bihar. The association includes 38 district level associations, and 9 regional units. The sports being developed in Bihar are Athletics, Powerlifting, Badminton, Table Tennis and Archery. Shard Kumar, from Bihar has won Bronze in Tokyo (2020) and Silver in Paris (2024). Shailesh Kumar (High Jump) took part in Paris 2024 and came 4 th in T42/T63. Jhandu Kumar won Bronze in Men's Heavyweight Para-Powerlifting at the 2026 Commonwealth Games in Glasgow on 24 th July. He scored 130.9 points. (The Bridge, 2026; The Bridge Desk, 2026a). Bihar have a more developed structure, infrastructure and achievements in para sports than West Bengal.

3.3.3 Odisha

Para sports are conducted by the Para Sports Association of Odisha. In Odisha, great success has been achieved in para badminton, para-athletics, para-archery and para powerlifting. In para badminton, Pramod Bhagat won a gold medal at the Tokyo 2020 Paralympics, making him the first Indian para-athlete to win a gold medal in para badminton in Men's Singles SL3. Payal Nag, a para-archer from Balangi , Odisha, who trains in Katra, won a gold medal in the Women's Compound Open Individual event at the World Archery Para Series in Bangkok on the 4 th April 2026. In the final she defeated Sheetal Devi in a score of 139-136. (The Bridge Desk, 2026b). The 24 th National Para Athletics Championship were held in Kalinga Stadium, Bhubaneswar. These events took place between 19 th March and 21 st March 2026. (Paralympic Committee of India, 2026). Overall, Haryana received the most medals (95), followed by Tamil Nadu (51) and Gujarat (30). (IANS, 2026).

3.3.4 Jharkhand

Para sport is still in its infancy stage in Jharkhand; however, a structure has been established allowing athletes to flourish. Para sport organizations in Jharkhand are run under the Para Sports Association of Jharkhand (PSAJ). In Jharkhand, para sports include Para Athletics, Para Badminton, Para Powerlifting, Para Swimming and Para Archery. Athletes competing at national level in Jharkhand (as per the PCI classification system) include Kajal Kumari (T46), Mahima Oraon (T44/F44) and Anand Mahato (T12/F12).

3.4 Eastern India within the national and international picture

India's Paralympic medals by Games and region are given in Table 5 and plotted in Figure 2. Of the 60 medals won between 1972 and 2024, 55 (91.7%) were won from 2004 onwards and 48 (80.0%) at the 2020 and 2024 Games alone. The 29 medals at Paris 2024 are India's largest tally to date (International Paralympic Committee, 2024a).

Table 5. Regional distribution of India's Paralympic medals by Games

Year	Northern	Southern	Western	Eastern	Total
1972	0	0	1	0	1
1984	3	0	1	0	4
2004	1	0	1	0	2

Year	Northern	Southern	Western	Eastern	Total
2012	0	1	0	0	1
2016	2	1	1	0	4
2020	10	1	6	2	19
2024	15	5	7	2	29
Total	**31 (51.7%)**	**8 (13.3%)**	**17 (28.3%)**	**4 (6.7%)**	**60**

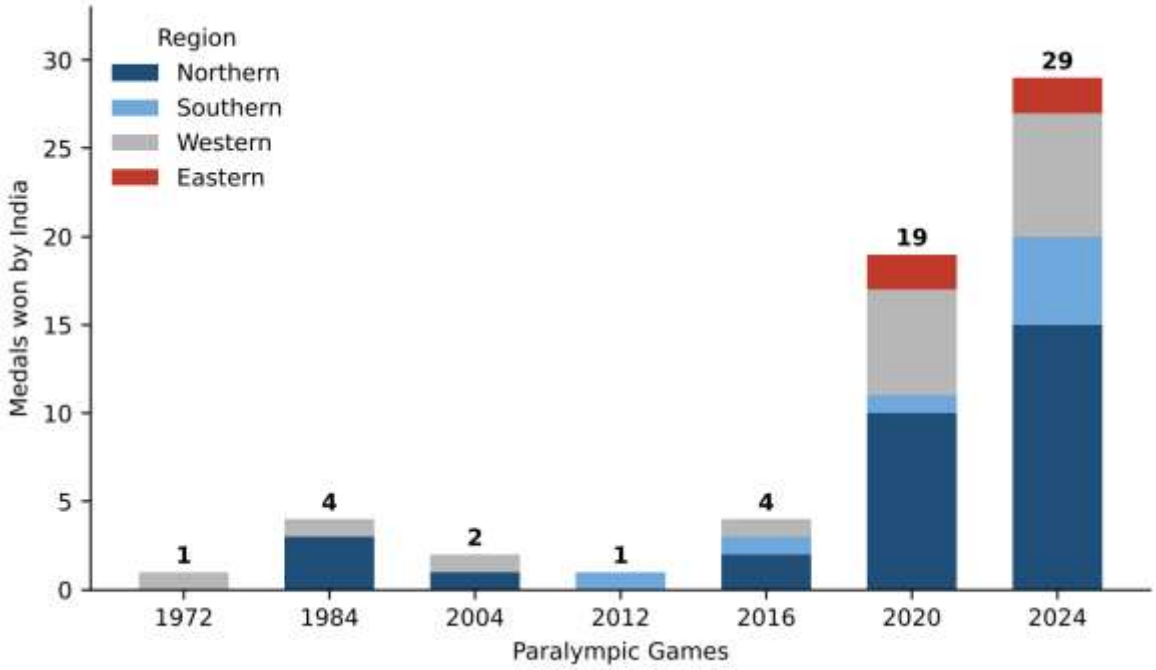

Figure 2. India's Paralympic medals by Games and region, 1972–2024, from table 5.

By region, the Northern states hold 31 medals (51.7%), the Western 17 (28.3%), the Southern 8 (13.3%) and the Eastern 4 (6.7%) (Figure 3). Table 6 gives the state-wise record, which is charted in Figure 4. Rajasthan and Haryana lead with 11 medals each, and West Bengal has none.

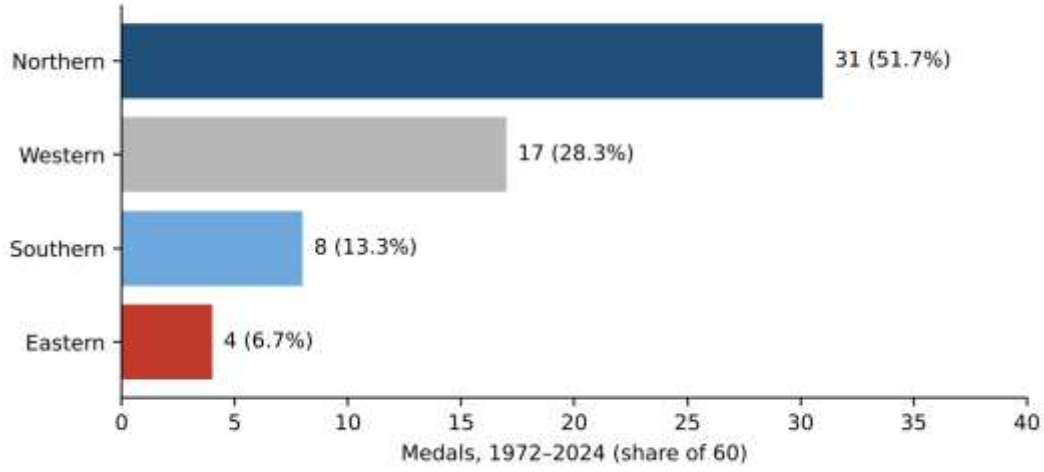

Figure 3. Regional share of India's 60 Paralympic medals, 1972–2024, from Table 5.

Table 6. State-wise medal record, 1972–2024

State / UT	Gold	Silver	Bronze	Total
Rajasthan	6	1	4	11
Haryana	6	3	2	11
Uttar Pradesh	1	4	4	9
Tamil Nadu	1	2	3	6
Punjab	0	1	3	4
Maharashtra	1	2	0	3
Delhi	0	3	0	3
Himachal Pradesh	0	2	0	2
Bihar	0	1	1	2
Madhya Pradesh	0	0	2	2
Karnataka	0	1	0	1
Gujarat	0	1	0	1
Odisha	1	0	0	1
Nagaland	0	0	1	1
Uttarakhand	0	0	1	1
Telangana	0	0	1	1
Jammu & Kashmir	0	0	1	1
Total	**16**	**21**	**23**	**60**

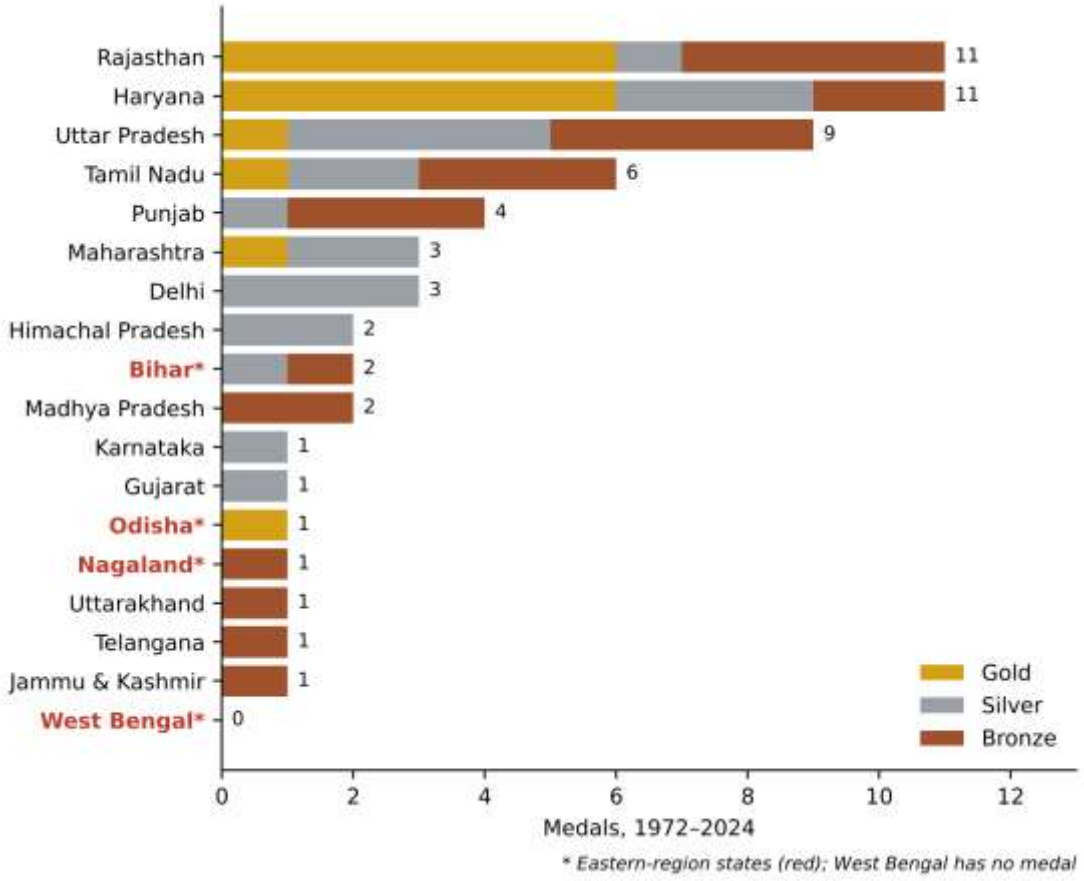

Figure 4. State-wise Paralympic medals, 1972–2024, from Table 6.

Devendra Jhajharia, Mariyappan Thangavelu and Avani Lekhara have won 3 medals in total in the paralympics (2004, 2016, 2020; 2016, 2020, 2024; 2020, 2020, 2024 respectively). Joginder Singh Bedi won 3 medals in one game (1984). Singhraj Adhana and Preethi Pal won 2 medals in one game. For India, only 4 medals (6.7%) were contributed from Eastern region. These include 1 gold, 1 silver and 2 bronzes (Table 7). These medals came from only 3 out of the 17 medal contributing regions. Half of these medals came from Bihar. Both medals won from Bihar were by the same athlete Sharad Kumar. The medal from Odisha was won by Pramod Bhagat, and the medal from Nagaland by Hokato Hotozhe Sema. West Bengal and Jharkhand did not win any medals.

Table 7. Eastern region medals by state, 1972–2024.

State	Gold	Silver	Bronze	Total
Bihar	0	1	1	2
Odisha	1	0	0	1
Nagaland	0	0	1	1
Eastern total	**1**	**1**	**2**	**4**
West Bengal	0	0	0	0
Jharkhand	0	0	0	0

The Eastern region contributed zero medals in 1972, 1984, 2004, 2012 and 2016. However, the region started contributing medals in 2020 and 2024. (See Table 8). The number of medals won by India overall increased from 19 to 29. In this period however, there was no increase in the number of medals in the Eastern region. Therefore, the contribution of this region dropped from 10.5% to 6.9%. Between these three games (2016, 2020 and 2024) where 52 of the 60 medals were gained, only 4 (7.7%) came from the Eastern region.

Table 8. Eastern medals by period calculated from Table 5.

Period	Eastern	National	Eastern share
1972–2016	0	12	0.0%
2020	2	19	10.5%
2024	2	29	6.9%
1972–2024	**4**	**60**	**6.7%**

Table 9 compares the regions. Northern and Western states together hold 48 medals (80.0%), and the Southern and Eastern regions together 12 (20.0%). The Northern region has 7.8 times as many medals as the Eastern region.

Table 9. Regional comparison calculated from Table 5.

Region	Medals	Share	Ratio to Eastern
Northern	31	51.7%	7.8 : 1
Western	17	28.3%	4.3 : 1
Southern	8	13.3%	2.0 : 1
Eastern	4	6.7%	1 : 1

Region	Medals	Share	Ratio to Eastern
India	**60**	**100%**	

The source register does not give sport or gender by region. IPC results records identify the four Eastern medals as follows (Table 10), these details were added from public IPC results and should be verified against the IPC database before submission.

Table 10. Eastern medals by Games, sportsperson and sport.

Games	Sportsperson	State	Medal	Sport
Tokyo 2020	Pramod Bhagat	Odisha	Gold	Para badminton
Tokyo 2020	Sharad Kumar	Bihar	Bronze	Para athletics (high jump)
Paris 2024	Sharad Kumar	Bihar	Silver	Para athletics (high jump)
Paris 2024	Hokato Hotozhe Sema	Nagaland	Bronze	Para athletics (shot put)

All medal winners in the East are male; there are three athletic medals and one badminton medal. None of the medals were won in sports requiring accessible pools. Of the 29 medals won by India at Paris, 10 came from female athletes, none were won in the East region.

3.5 Medals relative to the population of persons with disabilities

"There is a total of 26,810,557 people with disabilities in India (Office of the Registrar General & Census Commissioner, India, 2011). Of this number, 4,348,415 (16.2%) live in Bihar (2,331,009) and West Bengal (2,017,406). Along with Jharkhand (769,980) and Assam (480,065), 20.9% of India's disabled population resides in these four states, yet they account for only 2 out of 60 medals won by India. Both of these medals were won by athletes from Bihar (Table 11). Figure 5 displays the proportion of people with disabilities compared to medals obtained in each state.".

Table 11. "Figure 5: Medals per 1,000,000 people with a disability across Indian states. Population data sourced from the Census of India 2011 (Office of the Registrar General & Census Commissioner, India, 2011) and Lok Sabha (2024). Odisha, Nagaland, and states with uncertain population data have been excluded."

State	Persons with disabilities (Census 2011)	Medals 1972–2024	Medals per million
Haryana	546,374	11	20.1
Himachal Pradesh	155,316	2	12.9
Delhi	234,882	3	12.8
Punjab	654,063	4	6.1
Uttarakhand	185,272	1	5.4
Jammu & Kashmir	361,153	1	2.8
Madhya Pradesh	1,551,931	2	1.3

State	Persons with disabilities (Census 2011)	Medals 1972–2024	Medals per million
Gujarat	1,092,302	1	0.9
Bihar	2,331,009	2	0.9
Karnataka	1,324,205	1	0.8
Jharkhand	769,980	0	0.0
Assam	480,065	0	0.0
West Bengal	2,017,406	0	0.0
India	**26,810,557**	**60**	**2.2**

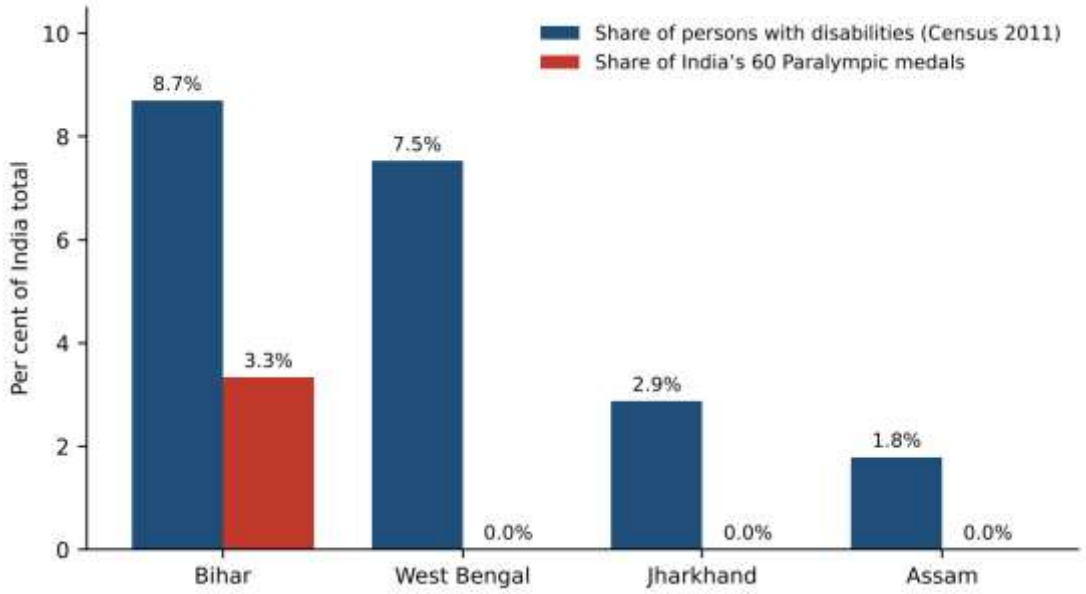

Figure 5. Share of persons with disabilities (Census 2011) and share of India's Paralympic medals, four Eastern states (calculated from Table 11).

Nationally, there are 2.2 medals per million disabled people. In this region, Haryana has 20.1 medals (almost 9 times more than the national average) and Bihar has only 0.9 medals. In Jharkhand, Assam and West Bengal there were no medals awarded. However, these numbers are very low so should be taken as broadly indicative. It can be seen that in the east, the low number of medals awarded does not result from a low number of disabled people. A graph of these values is shown in figure 6.

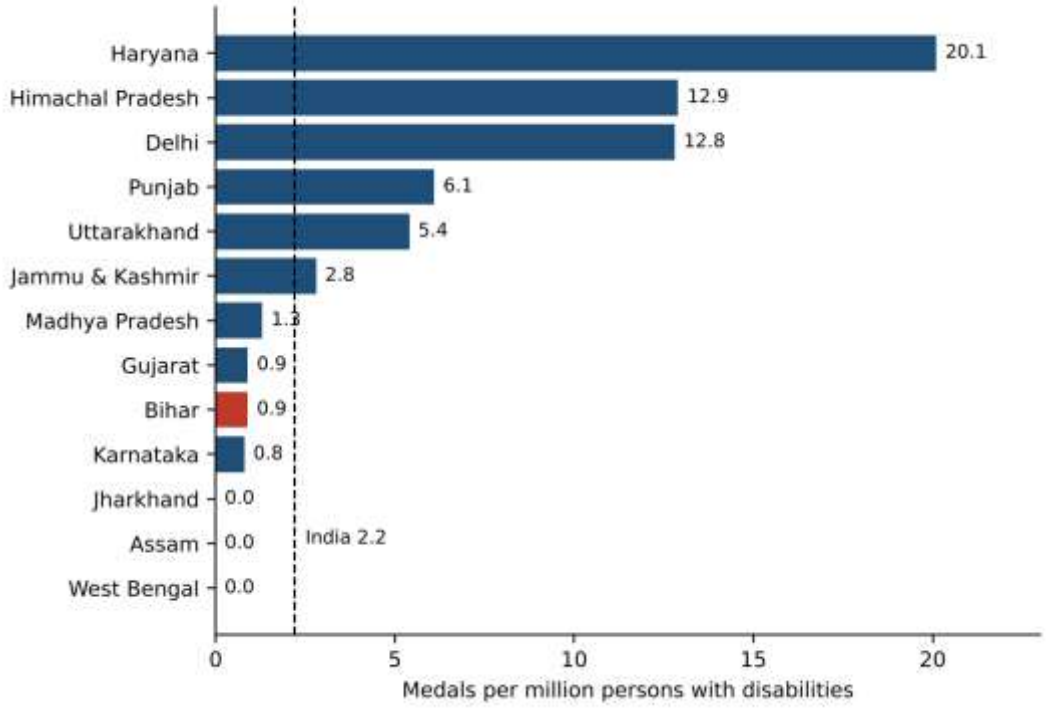

Figure 6. Paralympic medals per million persons with disabilities, selected states, data from Table 11

3.6 National standards and schemes relevant to facilities

India has accessibility standards for the built environment and for sports complexes, and several schemes that fund sport infrastructure (Table 12).

Table 12. National instruments relevant to Para sport facilities (Department of Empowerment of Persons with Disabilities, n.d.; Press Information Bureau, 2023; Department of Sports, 2022; Deccan Herald, 2024).

Instrument	Issued by	Relevance to Para sport facilities
Rights of Persons with Disabilities Act, 2016	Government of India	Provides for accessibility standards across sectors and time-bound compliance by establishments
Harmonised Guidelines and Space Standards for Universal Accessibility in India, 2021	Ministry of Housing and Urban Affairs	Moves the mandate from "barrier-free" to universal design; adopted into the RPwD Rules by the 2023 amendment (G.S.R. 413(E), 5 June 2023)
Guidelines for Accessible Sports Complex and Residential Facilities for Sports Persons with Disabilities	Department of Sports, Ministry of Youth Affairs and Sports	Notified 14 December 2022; fills a gap in space standards and disability-specific safety guidance for stadiums, sports complexes and residential facilities
Khelo India scheme	Ministry of Youth Affairs and Sports	Funds creation and upgradation of sports infrastructure, State Centres of Excellence, district Khelo India Centres and accredited academies

Instrument	Issued by	Relevance to Para sport facilities
Target Olympic Podium Scheme (TOPS)	Ministry of Youth Affairs and Sports	Supported 50 of the 84 Indian athletes at Paris 2024

Data is available for how many disability para-sport facilities have been provided across the country using various schemes. In 2019 a committee reported that no grants had been given to infrastructure in Bihar, Jharkhand and Odisha through the Khelo India scheme. It was therefore recommended that infrastructure is developed in these states (PRS Legislative Research, 2019). However, in December 2023 it was reported in the Rajya Sabha that West Bengal had the fewest number of Khelo India Centres (13) compared to Uttar Pradesh (80) out of 1000 total centres (Rajya Sabha, 2023). Looking at the Khelo India dashboard (2025/26), 1 State Centre of excellence has been created in Assam, Bihar, Nagaland and Odisha. No centres have been listed in West Bengal (Khelo India, 2026). Although these data are from different years, it can be seen that it is not possible to calculate a figure for para-sport facilities in the East based on data from the scheme.

3.7 Facility requirements by sport

Different facilities are required depending on the sports in which medals have been won or not won (Table 13). The size and specification of these facilities will depend on the international federation of the sport. Specifications can be found in the most up to date rule book. The type of facility is shown in the table below. Figure 7 shows the number of medals won per sport in India.

Table 13. Facility needs by Para.

Sport	India medals 1972–2024	Core facility needs	Equipment and personnel
Para athletics	35	Smooth track usable by wheelchair racers; secured throwing area; jump pits with accessible approach; accessible changing rooms and toilets	Racing chairs, throwing frames, prostheses; athletics coaches trained in Para events; classifiers
Para shooting	9	Range with accessible firing points and access routes; secure storage; range safety certification	Shooting chairs and supports; range officers and coaches
Para badminton	9	Indoor hall with level floor for wheelchair and standing classes; accessible entry and toilets	Sports wheelchairs; coaches trained in both classes
Para archery	3	Range with an accessible shooting line for wheelchair and standing archers	Adapted bows and stands; coaches
Para swimming	1	Accessible pool with ramp or lift, accessible poolside, changing rooms and toilets	Lifts or hoists; coaches and lifeguards trained in Para swimming

Sport	India medals 1972–2024	Core facility needs	Equipment and personnel
Para powerlifting	1	Accessible gym with competition-standard benches and wheelchair access	Competition benches and plates; coaches
Para table tennis	1	Indoor hall with level floor and table clearance for wheelchairs	Sports wheelchairs; coaches
Blind judo	1	Mat area with safe flooring and clear tactile or visual cues	Judo mats; coaches trained for visually impaired athletes
Team and other sports (wheelchair basketball, sitting volleyball, goalball, boccia)	0	Indoor halls with suitable floor and height; accessible spectator areas	Sport-specific chairs, balls and courts; coaches and officials

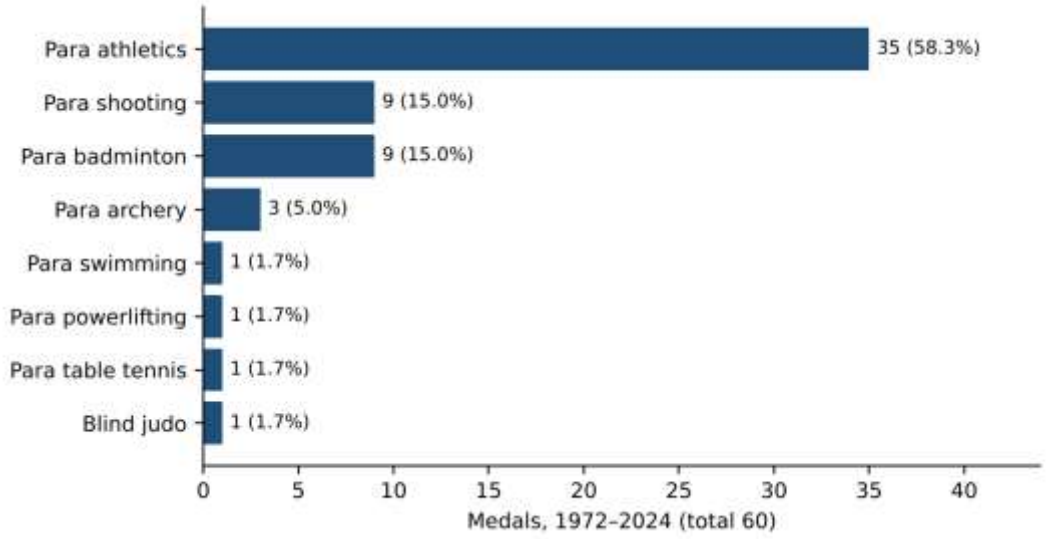

Figure 7. India's Paralympic medals by sport, 1972–2024 , data from Table 13.

Implications there is a low level of specialization within the facilities. 58.3% of medals come from athletics. Swimming, Powerlifting, Table Tennis and Judo have one medal each. Shooting and Badminton have 9 medals each showing that even for facility-based sports success can be achieved as long as facilities and coaching are in place. Multipurpose indoor facilities and easily accessed pool mean a high return can be made from several sports. All sports require similar provisions like, Step free access, accessible toilets & changing rooms, accessible transport & accommodation, classification, equipment and trained staffs.

3.8 A four-tier facility framework for Eastern India

Para sport development follows a similar pathway as elite sport, with four levels of provision required to develop athletes within a high-performance environment. The facilities required at each level are shown

below (Table 14) alongside their purpose.The pathway is shown in figure 8.

Table 14. Proposed four-tier framework of facilities for Para sport in Eastern India (author proposal).

Tier	Where	Function	Minimum facilities
1. School and community	Special schools, inclusive schools, community centres	Participation, screening and early talent identification	Step-free access, accessible toilets, adapted play and multipurpose indoor space, basic adapted equipment, a trained physical education teacher
2. District	District sports complexes and Khelo India Centres	Regular training for emerging athletes; local competition	Accessible hall, track or ground, and where possible pool or range; one or two Para disciplines; coach; referral route to classification
3. State hub	State sports institutions and Khelo India State Centres of Excellence	Pathway training; state competition; classification camps	Accessible multi-sport complex, residential accommodation meeting the 2022 guidelines, sport science and medical support, equipment library
4. Regional high-performance centre	One or two existing national-level campuses in the East	Elite training and competition readiness for Asian and Paralympic events	Full-specification venues for the main Paralympic sports, accessible residential and medical facilities, classification, hosting capacity

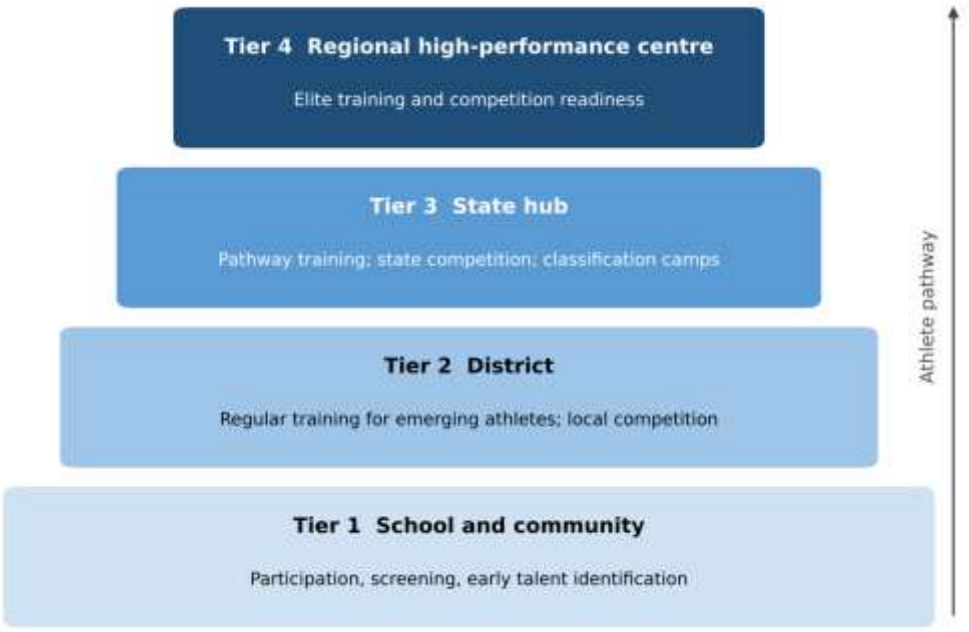

Figure 8. Proposed four-tier facility framework for Para sport in Eastern India (author proposal (see Table 14).

The regional hub should be established based on the following criteria such as existing infrastructure, rail and air transport links, suitable housing and medical and sports science resources. Existing sporting hubs within this region, including those at Salt Lake (Kolkata), and Guwahati (Sports Authority of India), may be considered for evaluation. However, this paper does not conduct this evaluation. Any new infrastructure and retrofitted infrastructure should follow the Harmonised Guidelines (2021) and guidelines from the Department of Sports (2022).

3.9 A facility audit instrument

There are currently no regional data available for measuring Para sports provision within the Eastern regions. To measure Para sport provision in this region there should be audits completed in one of 7 categories in each level. These have been informed by the Harmonised Guidelines (2021) and sports complex guidelines (2022). Table 15 shows these categories.

Table 15. Proposed seven-domain facility audit instrument (author proposal).

Domain	What is recorded	Example indicators
1. Access and circulation	Approach, entrance, ramps, corridors, doors, signage, parking	Step-free route from gate to sports space; ramp and handrail present
2. Sanitation and changing	Toilets, changing rooms, showers	Accessible toilet and changing room present and usable
3. Sports spaces	Surface, size, lighting, pool or range access, floor	Spaces usable by wheelchair and standing users; sports offered
4. Equipment	Availability, condition, adapted items, storage	Number of sports wheelchairs, throwing frames, adapted bows or rifles; library or loan system
5. Personnel	Physical education teachers, coaches, classifiers, medical staff	Staff trained in Para sport; classifier access within the state
6. Programme and participation	Children with disabilities enrolled, weekly activity, disciplines, talent identification, referrals	Hours of sport per week; screening done; referral to a district centre
7. Transport, accommodation, safety	Transport to venue, residential facilities, emergency provision	Accessible transport available; accessible hostel rooms; emergency plan

Scoring will be on a 3-point scale (0, 1 or 2). A score per domain will be calculated for each facility. An overall score will be generated per tier, district and state. In round 1, all government aided special schools & centres, district sports complexes, Khelo India Centres and State institutions in a representative sample of districts within each state will be assessed. Trained auditors should be used. People with disabilities should be involved in the development and collection of data. A pilot should be conducted and modifications made prior to implementation. Reliability of the tool should be established.

3.10 A phased roadmap, 2026–2036

The roadmap in Table 16 is organised in four stages leading to 2036. It is a proposal for discussion by the institutions concerned, not a commitment by any government, and its timing takes account of the

expected IOC decision on 2036 in 2029. Numerical targets should be set only after the baseline audit. Figure 9 shows the timing of the stages.

Table 16. Proposed phased roadmap for Para sport facilities in Eastern India (author proposal).

Stage	Years	Main actions	Indicators
1. Baseline	2026–2028	Finalise and pilot the audit instrument; audit special schools and district facilities; map classifiers, coaches and equipment; set targets	Share of facilities audited; baseline domain scores; published state profiles
2. Foundation	2028–2031	Retrofit priority Tier 1 schools; open district Para discipline centres in existing Khelo India Centres; train physical education teachers and coaches; set up equipment libraries	Share of audited facilities meeting access standards; number of schools with a trained teacher; children screened
3. Pathway	2031–2034	Develop Tier 3 state hubs; train and certify classifiers in the region; plan and begin the regional high-performance centre; run regular state and regional competitions	Athletes classified from the region; state hub domain scores; competitions held
4. Consolidation	2034–2036	Bring the regional centre into use; support athletes in Asian and national events; monitor and publish results	Regional share of national medals; medals per million persons with disabilities; women's share



Figure 9. Proposed phased roadmap for Para sport facilities, 2026–2036, author proposal (see Table 16).

These include inputs, outcomes, and process measures (numbers of children assessed and involved). Only the medals data represent outcome measures. However, in India there was a 1–2-decade lag between investment in infrastructure and seeing results and therefore the audit and process measures will provide insight into whether progress has been made by 2030.

4. Discussion

4.1 What the evidence shows

Paralympic performance in Eastern states is poor. Only 4 medals were won by athletes from Eastern states in India (out of a total of 60). None were won before 2020 or in West Bengal. After adjusting for disability prevalence, it appears that Eastern states perform poorly. Bihar and West Bengal make up 16.2% of disabled people within India (Census, 2011) yet have only 3.3% of the total number of medals (Table 11). There are fewer medals per million disabled people in Bihar compared to nationally (0.9 vs 2.2) and compared to Haryana (20.1). However, when taking into consideration that national Paralympic performance has lagged behind development by 10-20 years, it is likely that the poor performance in Eastern states is not a reflection of potential talent in these areas. The poor performance does not necessarily reflect infrastructure within the states as medals are attributed to states, and only 3 athletes have come from Eastern states. Prevalence of disability data comes from the 2011 Census.

4.2 Why facilities come first: International best practice demonstrates that accessibility requirements, classification systems, modified equipment and skilled staff are required at every stage of development in Para sport. (Legg & Steadward, 2011; Tweedy & Vanlandewijck, 2011; Gold & Gold, 2007). This is reflected in Indian standards. Guidelines on ‘space requirements and specific requirements for disabled people within sporting facilities were lacking in 2022. However, in 2021, guidelines have been harmonized meaning the requirements have moved towards universal design. (Department of Sports, 2022; Press Information Bureau, 2023). However, quantitative data is missing. No references indicate how many inclusive sporting facilities for para-athletes, qualified instructors or classifiers there are in Eastern states. This data cannot be obtained from scheme documentation either. (3.6) Therefore, without a baseline audit, it will be impossible to set targets or allocate funding.

4.3 Applying the framework in the East

Within Tier 1, Special Schools already exist within the region meaning that audits and modifications will be performed at existing special schools to allow for talent identification. Within districts, 1-2 Para disciplines could be implemented into existing Khelo India Centres. To reduce costs and timescales, state hubs and regional elite centres should be developed at existing national and state facilities. As multiple Para sports can be hosted within one accessible pool/hall (Table 13), the greatest value can be achieved by providing multi-sport facilities. This framework allows for some balance within the types of sports and participants within sport nationally. Athletics account for a large proportion of medals in comparison to other sports (58.3%) and only 23.3% of medals for female competitors. Therefore, making these facilities accessible through schools, with accessible showering facilities, toilets and transport, is a prerequisite to allowing female participation.

4.4 The Asian and 2036 context

In East and South-East Asia, there has been a concentration of hosting cities at these games. As a result, little information has been provided regarding the accessibility of legacies. (Aichi-Nagoya 2026 Asian Para Games Organising Committee, Gold & Gold, 2007). FESPIC and Asian Para Games have never been held in South Asia. However, India is one of the seven bids for 2036, and the bid will be presented to the IOC Future Host Commission at the end of November 2026. It won’t be decided until 2029. (Business Today, 2026, Press Trust of India, 2026). Regardless of India hosting the games or not, these sporting facilities in this framework provide equal access to sport for Para athletes. If only a few sporting facilities are built in north and west states, there will be a similar concentration of host cities within Asia.

4.5 Governance and workforce: Human elements are also included in the infrastructure. Within the scheme, a classification system and guidance has been developed in line with its progression (Tweedy & Vanlandewijck, 2011). As such, within the 2023 amendments to the RPwD Rules, the 2021 Harmonised Guidelines are referenced. However, it is noted that the accessibility requirements provided by different Ministries are not cross-referenced meaning there is confusion for designers (Scroll.in, n.d.). Providing an accessible sports infrastructure checklist based upon the checklist in table 15, which takes into account both the Harmonised Guidelines and Sports Guidelines (2022) will reduce this confusion. Human infrastructure in this instance includes state level Para Sport Organisations as well as classifier training in the East (Misener & Darcy, 2014; Patatas et al, 2018).

4.6 Recommendations

1. Adopt and pilot the seven-domain audit instrument in government-aided special schools and district facilities in each Eastern state, and publish state profiles.
2. Use the baseline to set targets and to prioritise Tier 1 retrofitting under the Harmonised Guidelines (2021).
3. Add Para disciplines to existing Khelo India Centres in the East, and assess existing national and state campuses for a regional high-performance centre.
4. Train physical education teachers, coaches and classifiers in the region, and create equipment libraries.
5. Track participation, gender and facility scores, not only medals.
6. Update the medals-per-population analysis when new disability data become available.

4.7 Limitations

A conceptual analysis; therefore, no physical audit. Framework, instruments and roadmap are proposals. National medal data is taken from one source. Regional or state breakdowns are based on this source. Total medals awarded in Eastern states are very low. The rate of medals per million people has been calculated using 2011 census data. It has only been calculated for states with certain rates; it does not include Odisha and Nagaland. Data within section 3.6 is from different points in time and should be checked to ensure it is current. Information on sports won by Eastern medal winners (Table 10) and facility requirements (Table 13) is a summary of information and requires expert validation.

5. Conclusion

Eastern Indian states have a low representation within Paralympic medal winners. In a total of 60 medals, only 3 were won by athletes from Eastern Indian states (2 by Bihar and 1 by Odisha; 0 in West Bengal and Jharkhand). A comparison of para sport history, national benchmarks and schemes suggests that accessibility in infrastructure, equipment, coaching and classification in school settings leads to success. No measurement of these factors exists in the Eastern Indian states. A four-step structure, an athlete specific matrix, seven-point audit tool and four-step pathway until 2036 are proposed. To deliver Mission Paralympic Games 2036, the initial step within eastern Indian states should be an audit of government aided special schools and district facilities. Subsequent steps are improving infrastructure, building capacity in staff, establishing hubs in each state and a regional elite performance centre. Targets should be derived from the initial baseline audit. The framework should be piloted and modified following auditing in practice.

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