

BUILDING THE GLOBAL SPORTS CITY AT THE RIGHT LOCATION

AN INDEPENDENT SCIENTIFIC ASSESSMENT

HYDROLOGY • PUBLIC SAFETY • CLIMATE RESILIENCE • GOVERNANCE

JULY 2026



UVAKAI
RESEARCH
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Empowering Happiness,
Inspiring Change

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Foreword

Planning for the Future Requires Planning with Nature

Tamil Nadu has emerged as one of India's leading states in infrastructure development, making significant investments in transport, industry, healthcare, education and sports. As the State continues to invest in world-class public infrastructure, it also has an opportunity to become a national leader in scientifically informed and climate-resilient planning.

As part of this vision, the Government of Tamil Nadu announced the development of a Global Sports City at Semmanchery, and the project was formally inaugurated by the Hon'ble Chief Minister Thiru M. K. Stalin on 25 February 2026. Envisaged as a world-class sports hub with international-standard training facilities, sports science centres and athlete support infrastructure, the project represents one of the State's most significant investments in sports development.

Uvakai Research Foundation fully supports the Government's vision of creating a Global Sports City. However, the announcement of such a major public infrastructure project within the Pallikaranai catchment, a landscape that has experienced repeated flooding during the 2015 Chennai floods and Cyclone Michaung in 2023, raised important questions regarding the suitability of the proposed location. At a time when substantial public investments are being made to improve the flood resilience of South Chennai, it became important to examine whether this critical public infrastructure had been planned in the most appropriate location.

This report was therefore undertaken to independently assess the proposed site from a hydrological, environmental and planning perspective. Using satellite imagery, spatial analysis, topographic assessment, publicly available planning documents and field observations, the study evaluates whether the current site is scientifically suitable for a project of this scale.

The findings indicate that the proposed site performs important flood management functions within the Pallikaranai catchment and therefore warrants reconsideration. The report also demonstrates that viable alternative locations exist that can accommodate the Global Sports City with substantially lower hydrological and environmental risks.

This Policy Position Paper is not a statement against development. It is a recommendation for better development. The Foundation believes that world-class infrastructure should be guided by scientific evidence, transparent governance and long-term climate resilience.

It is in this spirit that Uvakai Research Foundation respectfully submits this report to the Government of Tamil Nadu, policymakers, researchers and the public, with the hope that it contributes to informed decision-making and helps create a Global Sports City that will stand as a model of sustainable and future-ready infrastructure.

EXECUTIVE SUMMARY

Building the Global Sports City at the Right Location

The Government of Tamil Nadu has embarked on an ambitious initiative to establish a Global Sports City to develop world-class sporting infrastructure and position the State as a national leader in sports excellence. Uvakai Research Foundation fully supports this vision. The purpose of this report is not to question the need for the project, but to examine whether the presently proposed site at Semmanchery is scientifically suitable for such a major public investment.

This independent assessment integrates hydrology, topography, land use, drainage networks, satellite imagery, historical waterbody records, flood vulnerability, governance processes and publicly available planning information.

The assessment finds that the proposed site is not an isolated parcel of land, but forms part of the Pallikaranai flood management system, one of Chennai's most critical urban wetlands. The site functions as a natural runoff convergence corridor, temporary flood storage landscape and drainage pathway receiving stormwater from 271 upstream water bodies across a 170.92 sq.km catchment.

Using rainfall records from the India Meteorological Department (1901–2021), land-use analysis and runoff modelling, the study estimates that Catchment 2 alone can generate approximately 1.18 TMC of runoff during an average November, increasing to 1.61 TMC during a rainfall event comparable to the 2015 Chennai floods, requiring an average discharge of nearly 18,600 cusecs. These estimates demonstrate that the hydrological challenge is basin-wide and cannot be addressed through local interception drains or site-level engineering interventions alone.

The report further concludes that the proposed development is situated within a flood-vulnerable landscape adjacent to the Pallikaranai Marsh, where natural drainage processes protect downstream communities. More than 31,000 housing units—including 25,540 Government-built resettlement homes and several large private residential townships—depend on the uninterrupted functioning of this drainage system. Together, these developments accommodate an estimated 1.24 lakh residents, many of whom experienced severe flooding during the 2015 Chennai floods and Cyclone Michaung (2023), resulting in prolonged inundation, disruption of drinking water supply, failure of sewage treatment systems, electricity outages and restricted emergency access. The Foundation also reviewed the planning and governance process. Based on information available in the public domain during the preparation of this report, it could not identify publicly accessible documentation demonstrating:

- a basin-level hydrological assessment undertaken prior to site selection;
- a publicly available Environmental Impact Assessment;
- a comparative scientific evaluation of alternative sites; or
- a structured public consultation process.

These observations are limited to information available in the public domain and are not intended to imply that such studies do not exist. However, if undertaken, greater public disclosure would strengthen transparency and public confidence.

Recognising that the objective is to build the Sports City—not to oppose it—the report evaluates alternative locations. The assessment identifies the Guindy Race Course as a strong candidate for detailed evaluation. Following the Government's recovery of most of the property from the Madras Race Club, the site offers several strategic advantages: approximately 148 acres of Government-controlled land, extensive flat open terrain at approximately +12 m MSL, excellent multimodal connectivity, adjacency to the existing Velachery Aquatic Complex, and substantially lower hydrological risk than the Semmanchery site.

Based on the evidence presented, Uvakai Research Foundation concludes that the Semmanchery site is not scientifically suitable for a project of this scale. Continuing development at the present location would introduce

avoidable hydrological, environmental and public safety risks within one of Chennai's most important flood management landscapes.

Accordingly, the Foundation recommends that the Government of Tamil Nadu:

- Stop further development at the present Semmanchery site.
- Relocate the Global Sports City to a scientifically suitable alternative location.
- Undertake an independent comparative assessment of alternative sites, including the Guindy Race Course.
- Complete basin-level hydrological, environmental and climate resilience studies for the final site before implementation.
- Publish all technical studies and ensure transparent public consultation before finalising the project location.

This report demonstrates that Tamil Nadu does not have to choose between sports infrastructure and environmental resilience. Both objectives can be achieved through better site selection.

The question is therefore not whether Tamil Nadu should build a Global Sports City.

The question is whether it should be built in the right location.

CHAPTER 1

Why This Study Was Undertaken

For more than a decade, the neighbourhoods surrounding the Pallikaranai Marsh have experienced repeated flooding during both the southwest and northeast monsoons. The catastrophic floods of 2015 highlighted the region's hydrological vulnerability and underscored the importance of protecting its natural drainage systems. More recently, Cyclone Michaung in December 2023 once again inundated large parts of South Chennai, causing widespread damage to homes, public infrastructure and livelihoods.

In response, the Government of Tamil Nadu and various public agencies have invested substantial resources in improving the flood resilience of the Pallikaranai basin. Stormwater drainage projects, lake restoration, wetland conservation, canal improvements and other flood mitigation measures have been undertaken to restore the region's natural ability to convey and store floodwaters.

It is in this context that the announcement of the proposed Global Sports City at Semmanchery raised important questions. The project represents a significant public investment and an ambitious vision for Tamil Nadu's sporting future. Uvakai Research Foundation fully supports the creation of a world-class sports city. However, locating a major public infrastructure project within one of Chennai's most hydrologically sensitive landscapes naturally raises questions about its long-term environmental and flood management implications.

The objective of this study is therefore not to question the need for a Global Sports City, but to examine whether the presently proposed location is scientifically suitable for a project of this scale. To answer this question, Uvakai Research Foundation undertook an independent technical assessment based on publicly available planning documents, satellite imagery, historical land records, hydrological analysis, drainage network studies, flood vulnerability mapping and field observations.

The assessment seeks to answer the following questions:

- Is the proposed site part of the Pallikaranai catchment and its natural flood conveyance system?
- Does the site function as a natural flood storage and drainage landscape?
- Has the land historically retained floodwater?
- Were basin-level hydrological studies undertaken before selecting the site?
- Were alternative locations scientifically evaluated?
- Were environmental impact assessments and public consultations completed before finalising the project location?
- Could the proposed development increase flood risk to downstream communities and weaken Chennai's long-term flood resilience?

This report does not evaluate the architectural design of the proposed Sports City, nor does it question the Government's objective of strengthening sports infrastructure. Its purpose is to contribute constructively to evidence-based planning by assessing whether the proposed site is appropriate from a hydrological, ecological and planning perspective.

The central proposition of this report is simple:

Tamil Nadu should build a Global Sports City. But it should build it at the right location.

If the evidence demonstrates that an alternative site can achieve the same vision with lower environmental risk, greater climate resilience and improved long-term public safety, then relocating

the project would strengthen—not diminish—the Government's vision of creating a truly world-class sports city.

CHAPTER 2

Scientific Assessment of the Proposed Site

Understanding the Hydrological Function of the Semmanchery Site

One of the most important principles of contemporary water-sensitive urban planning is that **land cannot be assessed in isolation**. Every landscape forms part of a larger hydrological system where rainfall, surface runoff, groundwater, wetlands and drainage channels operate as interconnected components. Consequently, evaluating a site solely on the basis of its ownership, present land use or administrative classification often provides an incomplete understanding of its environmental function.

Instead, major public infrastructure projects must be assessed at the **river basin and catchment scale**. This approach forms the basis of integrated water resources management and is increasingly recognised as international best practice for planning climate-resilient cities.

The proposed Global Sports City site at Semmanchery must therefore be understood not simply as a 112-acre land parcel, but as a functional component of the **Pallikaranai catchment**, one of Chennai's most important urban wetland systems.

2.1 The Proposed Site Lies Within the Pallikaranai Catchment

The Pallikaranai Marsh is not merely a wetland.

It is the terminal storage and flood moderation system for a large urban catchment extending across southern Chennai. Rainfall occurring over hundreds of upstream lakes, ponds, drainage channels and urban sub-catchments ultimately converges towards the marsh before being discharged towards the Buckingham Canal and the Bay of Bengal. The proposed Sports City is situated within this broader hydrological network. This distinction is fundamental.

If the site merely happened to be located adjacent to the marsh, the planning implications would be different. However, the available hydrological evidence indicates that the site itself participates in the movement, storage and conveyance of stormwater within the basin. This means that changes to landform, elevation or surface permeability at this location have the potential to influence drainage behaviour beyond the project boundary.

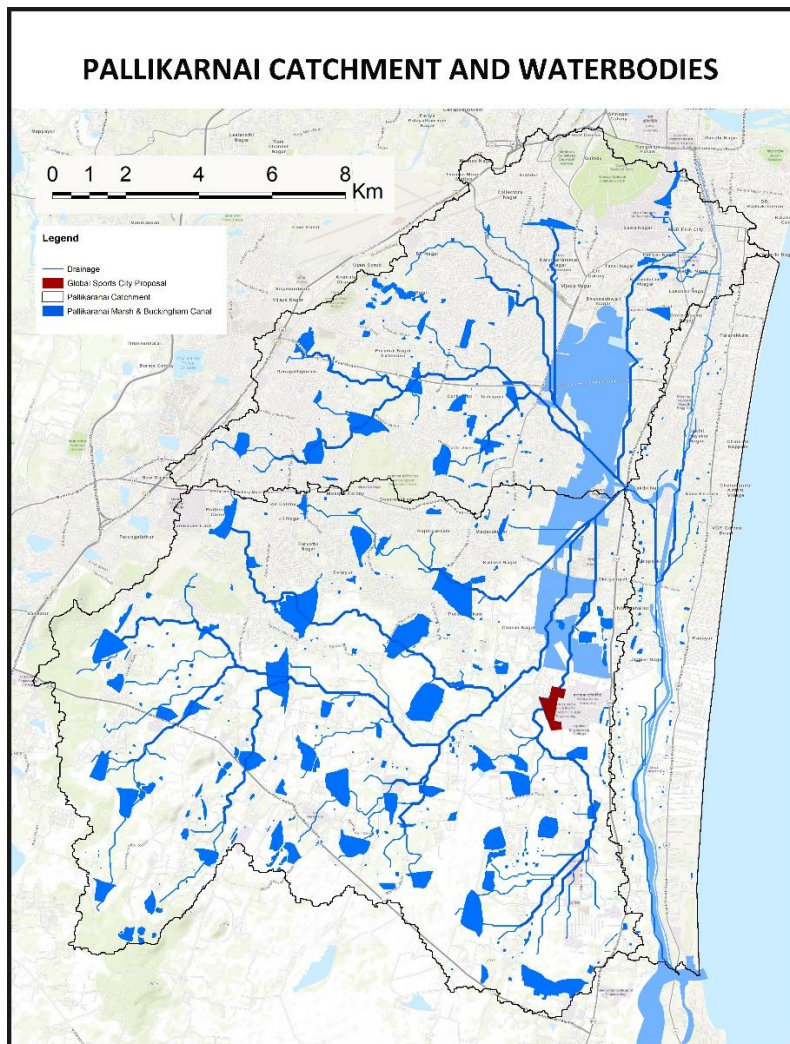
2.2 Satellite Evidence Indicates Long-Term Water Retention

A preliminary inspection using high-resolution satellite imagery reveals that portions of the proposed site experience persistent water stagnation throughout the year. While seasonal ponding alone cannot conclusively establish hydrological significance, it provides an important indicator that the landscape naturally retains water. To verify these observations, Uvakai Research Foundation examined the **Bhuvan Water Bodies Information System (WBIS)** developed by the National Remote Sensing Centre.

The results are particularly significant.

The WBIS identifies a water body within the proposed project boundary and records its water spread and storage characteristics over multiple years beginning in 2015. The system assigns a unique identifier and consistently recognises the site as part of the national waterbody inventory. This suggests that the site has historically functioned as a water-retaining landscape rather than behaving as a conventionally dry urban parcel.

The existence of long-term satellite observations strengthens the conclusion that the hydrological characteristics of the site are not temporary anomalies associated with individual rainfall events.



Map showing the pallikaranai catchment and its waterbodies

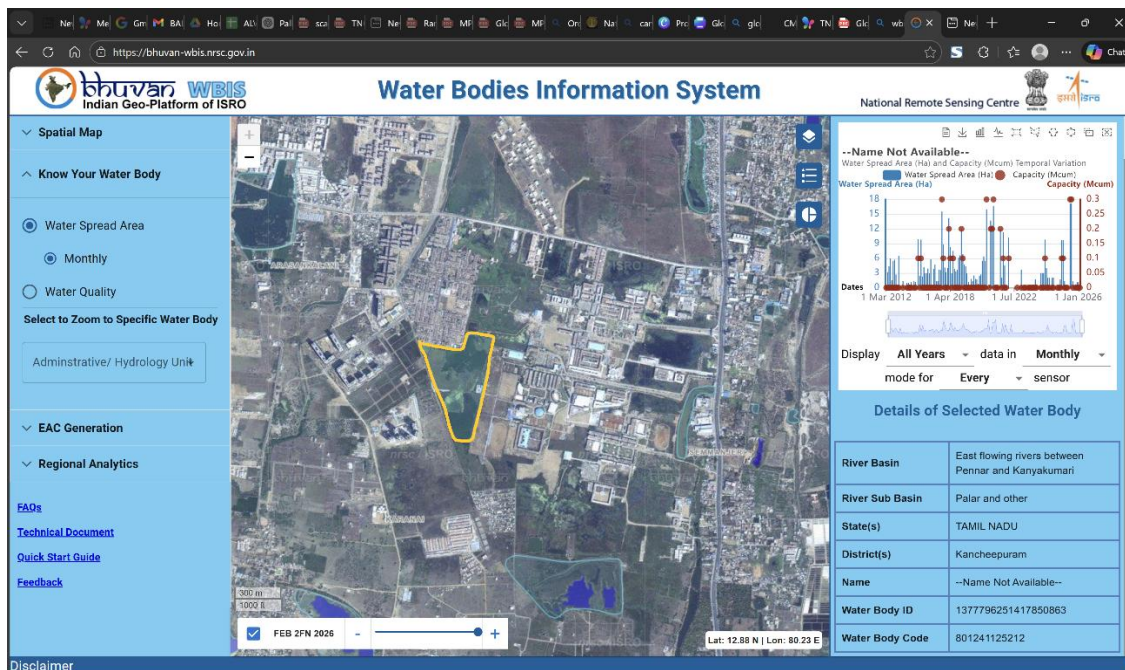


Figure01: Screenshot from the NRSC Bhuvan Water Bodies Information System (WBIS) indicating that the proposed Global Sports City site overlaps with a mapped historical water body.

2.3 Catchment Water Balance and Runoff Convergence Analysis

One of the most important questions in evaluating the suitability of the proposed Global Sports City is the quantity of stormwater that naturally converges through the project site during the Northeast Monsoon. The proposed site is not an isolated parcel of land. As demonstrated in the drainage network analysis (Figure XX), it lies within the principal runoff convergence corridor of **Catchment 2** of the Pallikaranai basin. Surface runoff generated across a large portion of the upstream watershed ultimately passes through this landscape before entering the Pallikaranai Marsh.

Catchment Characteristics

The Pallikaranai Catchment covers approximately **306.27 sq.km**, comprising **452 mapped water bodies**. Catchment 2, within which the proposed Global Sports City is located, is the largest hydrological unit of the basin.

Parameter	Value
Catchment Area	170.92 sq.km
Number of Water Bodies	271
Water Body Surface Area	15.34 sq.km

Land Use analysis indicates that Catchment 2 has already undergone substantial urbanisation, resulting in increased impervious surfaces and reduced natural infiltration.

The preliminary land-use composition is estimated as follows.

Land Use	Area (sq.km)	Percentage
Built-up	56.57	33.1%
Barren/Open Land	48.50	28.4%
Agriculture	29.69	17.4%
Forest / Vegetation	20.81	12.2%
Water Bodies	15.34	8.9%

Using standard runoff coefficients for each land-use category, the weighted runoff coefficient for Catchment 2 is estimated at approximately **0.54**.

Assumption of Full-Lake Conditions

For this assessment, the upstream lakes are assumed to be **already at or near full storage** at the onset of major Northeast Monsoon rainfall. This assumption reflects the present hydrological condition of the Pallikaranai basin. Many urban lakes receive **continuous sewage inflows throughout the year**, resulting in persistently elevated water levels. In addition, rainfall received during **July, August and September**, together with early Northeast Monsoon rainfall during October, further reduces the available storage within these lakes before the peak rainfall period in November.

Consequently, during extreme rainfall events, these lakes function primarily as **flow-through systems**, receiving runoff and rapidly releasing surplus water downstream rather than providing significant flood storage. This represents a realistic and conservative planning scenario for evaluating flood risk.

Rainfall Scenarios

Monthly rainfall analysis was undertaken using **India Meteorological Department (IMD)** data together with the **OpenCity Chennai Rainfall Database (1901–2021)**.

Three representative rainfall scenarios were considered.

1. Long-term average November rainfall.
2. Extreme rainfall comparable to the 2015 Chennai Floods.
3. Extreme rainfall associated with Cyclone Michaung (2023).

Estimated Catchment Runoff

The total rainfall volume falling over Catchment 2 was calculated using:

Rainfall Volume = Rainfall Depth × Catchment Area

The estimated direct runoff was subsequently derived using the weighted runoff coefficient of **0.54**.

Estimated Runoff under Full-Lake Conditions

Rainfall Scenario	Rainfall	Total Water Generated	Estimated Runoff	Equivalent Runoff
Long-term November Average (1901–2021)	362.3 mm	61.92 MCM	33.44 MCM	1.18 TMC
Extreme Rainfall (2015 Flood Event)	494 mm	84.43 MCM	45.59 MCM	1.61 TMC
Cyclone Michaung (2023)	468 mm	79.99 MCM	43.19 MCM	1.53 TMC

These estimates indicate that an extreme rainfall event comparable to the 2015 floods could generate approximately **1.6 TMC** of direct runoff from Catchment 2 alone.

Equivalent Stormwater Discharge

To appreciate the magnitude of these runoff volumes, the corresponding average discharge required to safely convey this water was estimated.

Storm Event	Runoff	Assumed Duration	Equivalent Average Discharge
2015 Flood Event	1.61 TMC	24 hours	≈18,600 cusecs
Cyclone Michaung	1.53 TMC	48 hours	≈8,800 cusecs

These values represent average discharge rates over the duration of each event.

Actual peak discharges are likely to be substantially higher because rainfall during extreme storms occurs in intense bursts rather than being uniformly distributed over time.

Planning Significance

This assessment demonstrates that the proposed Global Sports City is located within the principal runoff convergence corridor for a **170.92 sq.km watershed containing 271 interconnected water bodies**.

During prolonged monsoon conditions, the upstream lakes cannot be assumed to provide significant additional flood storage because many are already at or near capacity due to continuous sewage inflows and antecedent monsoon rainfall. Under these circumstances, surplus water from hundreds of interconnected water bodies must be conveyed downstream through the existing drainage network.

Consequently, the hydrological challenge is not confined to runoff generated within the project site itself. Rather, the site is required to safely convey **basin-scale stormwater volumes** generated across the wider watershed. Even under average November rainfall, approximately **1.18 TMC** of runoff may require downstream conveyance. During an event comparable to the 2015 floods, this increases to approximately **1.61 TMC**, equivalent to an average discharge of nearly **18,600 cusecs** over a 24-hour period.

This has an important planning implication. Site-level interception drains or local stormwater improvements cannot eliminate or substantially reduce this basin-scale runoff. They can only redistribute, accelerate or redirect the flow. Unless supported by comprehensive basin-scale hydrological modelling, such interventions may simply transfer flood risk to downstream neighbourhoods rather than reducing it.

As urbanisation within Catchment 2 continues, impervious surfaces will increase further, generating higher runoff volumes and larger peak discharges during future rainfall events. The flood conveyance function presently performed by this landscape will therefore become increasingly important over time.

The central planning question is therefore not whether drains can be constructed around the proposed Sports City. The question is whether any engineered drainage system can safely replace the natural flood conveyance and attenuation functions presently performed by this landscape while protecting more than 1.24 lakh downstream residents, critical public infrastructure and Government-developed resettlement colonies from increased flood risk.

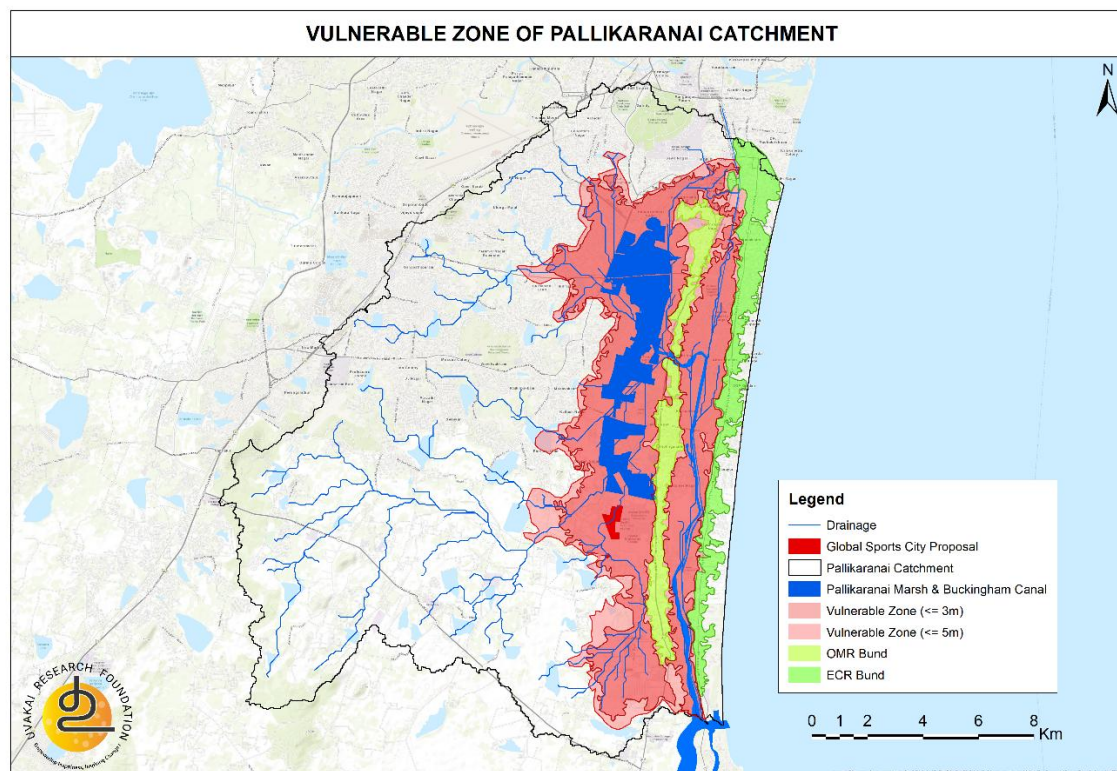
2.4 Elevation and Flood Vulnerability

Topographic analysis provides additional evidence supporting the hydrological sensitivity of the site.

The Pallikaranai Marsh forms a broad saucer-shaped depression with relatively gentle relief. Ground elevations across the marsh typically range from approximately –1 metre to +2.5 metres above mean sea level, creating an extensive low-lying landscape capable of receiving floodwater during heavy rainfall. The proposed Global Sports City site is situated at an elevation of approximately 3–3.5 metres above mean sea level, placing it immediately adjacent to this low-lying flood storage landscape and within the natural transition zone through which floodwaters are conveyed during extreme rainfall events. During the 2015 Chennai floods, observed water levels in parts of the marsh rose by nearly two metres above the average marsh bed, demonstrating the extent to which the surrounding landscape functions as temporary flood storage during major storm events.

Using these observations, Uvakai Research Foundation prepared an elevation-based flood vulnerability assessment employing the +3metre, + 5metre contour above mean sea level as an indicative threshold for identifying areas susceptible to inundation. The resulting analysis delineates approximately 86 square kilometres of flood-vulnerable landscape within the Pallikaranai basin.

The proposed Sports City lies entirely within this mapped flood vulnerability zone. While this does not imply that the site remains inundated under normal conditions, it indicates that the land forms part of the broader landscape that naturally accommodates and conveys floodwaters during extreme rainfall events. The significance of this landscape is likely to increase in the future. As urbanisation continues across the upstream catchment and surrounding areas of the Pallikaranai basin, increasing impervious surfaces such as roads, buildings and paved developments will generate higher volumes of surface runoff and reduce natural infiltration. Consequently, a larger proportion of rainfall will reach the marsh and its downstream drainage corridors over shorter periods, placing greater pressure on the remaining flood storage and conveyance areas. In this context, preserving these natural hydrological landscapes becomes increasingly important for enhancing Chennai's long-term flood resilience. Any large-scale intervention within such areas should therefore be supported by comprehensive basin-level hydrological assessment to ensure that existing flood risks are not further amplified.



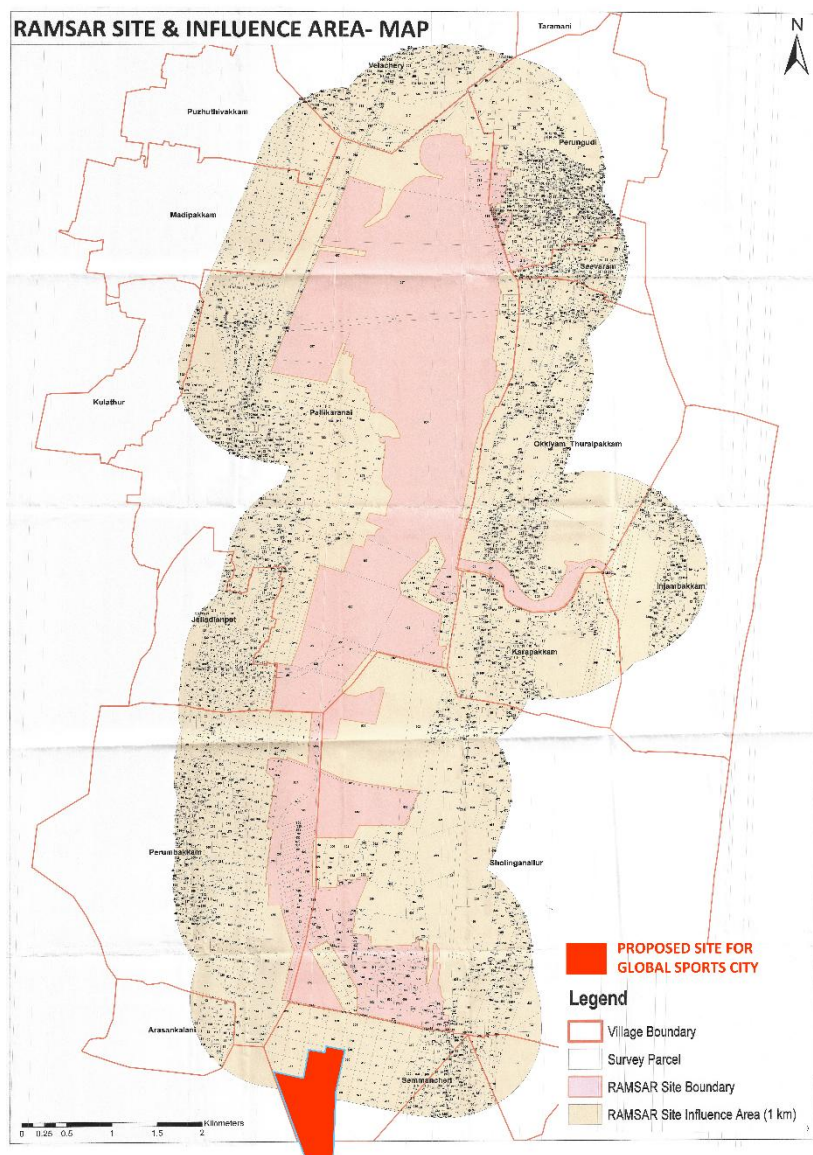
Map showing the vulnerable zones in the pallikarani cacthment

2.5 Planning Framework and the Pallikaranai Ramsar Buffer

Scientific suitability must always be evaluated alongside the applicable planning and regulatory framework. In **O.A. No. 91 of 2023**, the **National Green Tribunal (Southern Zone)**, by its order dated **24 September 2025**, directed that **no approvals, sanctions or permissions should be granted for developments within the notified Pallikaranai Ramsar Site and its one-kilometre zone of influence.**

Pursuant to the above directions, the **Chennai Metropolitan Development Authority (CMDA)** issued **U.O. Note No. C1/4627/2023-2 dated 06 October 2025**, instructing all concerned planning authorities and local bodies **not to grant any approvals or permissions within the Ramsar Site boundary and its one-kilometre zone of influence**, in accordance with the NGT's directions and the accompanying notification map.

When the proposed Global Sports City is compared with the publicly available Ramsar boundary and the notified one-kilometre zone of influence, **portions of the project appear to fall within this notified planning area.** This observation does not, by itself, determine whether the project complies with the applicable legal and regulatory requirements. However, it raises important planning and regulatory questions that warrant transparent clarification.



Given the ecological significance of the Pallikaranai Ramsar Site and the directions issued by the National Green Tribunal, followed by the CMDA's instructions to all local bodies, it is important that the technical and legal basis for permitting the proposed development, if any, is placed in the public domain. Such transparency would strengthen public confidence and demonstrate that the project has been evaluated in full compliance with the applicable environmental and planning framework.

and Public Safety

2.6 Human Exposure

The proposed Global Sports City is not located within an isolated landscape. It lies upstream of one of Chennai's fastest-growing residential corridors, where the natural drainage system protects a large downstream population.

The Government of Tamil Nadu has itself made substantial public investments in developing large-scale resettlement housing within this flood-prone landscape. The Semmenchery and Perumbakkam Tamil Nadu Urban Habitat Development Board (TNUHDB) resettlement colonies together comprise 25,540 housing units, accommodating an estimated 1,02,160 residents.

In addition, the same drainage corridor serves several major private residential developments, including DLF Garden City, Bollineni Hillside, Dinesh Vihar (Army Quarters), DLF Jones Cassia, Casagrand Elan, Casagrand Sereno, Casagrand Divinity and DRA Inara, together accounting for another 5,547 housing units with an estimated population of 22,188 residents.

Residential Population Potentially Dependent on the Pallikaranai Drainage System

Category	Housing Units	Estimated Population*
Government Resettlement Housing (Semmenchery & Perumbakkam)	25,540	1,02,160
Private Residential Townships	5,547	22,188
Total	31,087	1,24,348

*Estimated at four persons per housing unit.

This assessment indicates that more than 82% of the potentially affected population resides in Government-developed resettlement housing, while the remaining population lives in large private residential townships and gated communities.

These neighbourhoods experienced severe flooding during the 2015 Chennai floods and again during Cyclone Michaung (2023). Residents remained stranded for several days, access roads became impassable, drinking water supply was disrupted, electricity was interrupted, and several large residential townships reported failures of sewage treatment plants (STPs), resulting in sewage overflow and significant public health concerns. These events demonstrated the critical role played by the Pallikaranai floodplain in protecting downstream communities during extreme rainfall.

This is perhaps the most important planning consideration arising from this assessment. The Government has already invested thousands of crores of rupees in providing housing and urban infrastructure for more than one lakh people within this corridor. Introducing another major public infrastructure project into the same hydrologically sensitive landscape has the potential to increase flood risk not only to the natural ecosystem, but also to these existing public investments and the communities they were created to serve.

The issue, therefore, is no longer confined to environmental conservation. It is fundamentally a question of public safety, protection of Government assets, and long-term urban resilience. Any decision that could alter the functioning of this natural flood management system should be preceded by comprehensive scientific evaluation to ensure that the lives, homes and essential infrastructure serving more than 1.24 lakh residents are not exposed to additional flood risk.

2.7 Scientific Conclusion

Based on the evidence reviewed, Uvakai Research Foundation concludes that the presently proposed Global Sports City site forms an integral component of the Pallikaranai hydrological system.

The site performs important flood management functions by facilitating stormwater conveyance, runoff convergence and temporary flood storage within one of Chennai's most environmentally sensitive urban

catchments. These functions extend well beyond the project boundary and contribute to the overall flood resilience of the wider Pallikaranai basin.

The significance of this landscape is not limited to environmental conservation. It is also a matter of public safety. The natural drainage system surrounding the proposed site protects downstream communities comprising more than 31,000 housing units and an estimated 1.24 lakh residents, including over 25,500 Government-developed resettlement homes and several large private residential townships. These communities experienced severe flooding during the 2015 Chennai floods and Cyclone Michaung in 2023, demonstrating their dependence on the uninterrupted functioning of this natural flood management system.

Against this backdrop, introducing another large-scale public infrastructure project within this hydrologically sensitive landscape has the potential to increase pressure on the basin's flood conveyance and storage functions, thereby increasing flood risk to existing communities, critical public infrastructure and substantial Government investments already made in housing and urban development.

Accordingly, Uvakai Research Foundation concludes that the presently proposed Semmanchery site is not a scientifically suitable location for a project of this scale. The Foundation therefore recommends that the project be relocated to a more suitable site and that alternative locations be evaluated through an independent, basin-scale assessment integrating hydrology, environmental sustainability, climate resilience, public safety and long-term planning considerations before irreversible investments are made.

CHAPTER 3

Governance Assessment

Review of Scientific, Environmental and Public Decision-Making Processes

3.1 Governance Assessment

Alongside the hydrological assessment presented in Chapter 2, Uvakai Research Foundation reviewed the governance and planning processes associated with the proposed Global Sports City based on information available in the public domain.

The review examined whether the project was supported by four key planning processes that are generally undertaken for major public infrastructure projects:

- A basin-level hydrological assessment undertaken before selecting the project site.
- A publicly available Environmental Impact Assessment (EIA) evaluating the environmental implications of the proposed development.
- A comparative scientific evaluation of alternative locations before finalising the present site.
- A structured public consultation process to inform affected communities and obtain stakeholder feedback.

Based on the information available in the public domain during the preparation of this report, Uvakai Research Foundation was unable to identify publicly available documentation demonstrating that these assessments and processes had been completed or made available for independent public review.

Specifically, the Foundation was unable to identify publicly available documentation relating to:

- a comprehensive basin-level hydrological assessment undertaken prior to site selection;
- a publicly accessible Environmental Impact Assessment (EIA);
- a comparative technical evaluation of alternative project locations; or
- documentation of a structured public consultation process involving affected communities.

These observations are strictly limited to information available in the public domain and should not be interpreted as evidence that such studies or consultations were not undertaken. However, if they exist, they were not publicly available for independent review during the preparation of this assessment.

The review also notes that, pursuant to the directions of the National Green Tribunal (Southern Zone) in O.A. No. 91 of 2023, the Chennai Metropolitan Development Authority (CMDA) issued instructions on 6 October 2025 directing all planning authorities and local bodies not to grant approvals, sanctions or permissions within the notified Pallikaranai Ramsar Site boundary and its one-kilometre zone of influence, except in accordance with the applicable regulatory framework. This further highlights the importance of making the technical, environmental and regulatory basis for the proposed site selection publicly available.

3.2 Governance Conclusion

The hydrological assessment presented in Chapter 2 identifies significant technical questions regarding the suitability of the proposed location. The governance review indicates that important planning documents and technical assessments were not available in the public domain for independent review during the preparation of this report.

For a project of this scale and long-term significance, greater transparency in scientific studies, environmental assessments, alternative site evaluations and public consultation would strengthen public confidence and support more informed decision-making.

Accordingly, Uvakai Research Foundation recommends that the proposed site be subjected to an independent scientific review, supported by public disclosure of relevant technical studies and meaningful stakeholder consultation, before irreversible development decisions are taken.

CHAPTER 4

Building a World-Class Sports City in the Right Location

Comparative Assessment of the Proposed Site and Alternative Locations

Uvakai Research Foundation has consistently maintained one position throughout this report:

Tamil Nadu needs a world-class Global Sports City. The Foundation does not recommend abandoning the project. Instead, it recommends relocating the project to a scientifically more suitable location.

The assessment presented in Chapter 2 demonstrates that the proposed Semmanchery site forms part of the Pallikaranai flood management landscape and functions as a natural runoff convergence corridor for a large upstream catchment. Rather than investing substantial resources to engineer around these natural constraints, it is prudent to evaluate alternative locations that can accommodate the project with significantly lower hydrological and environmental risks.

Accordingly, Uvakai Research Foundation undertook a preliminary comparative assessment of the Guindy Race Course (MRC) as a potential alternative.

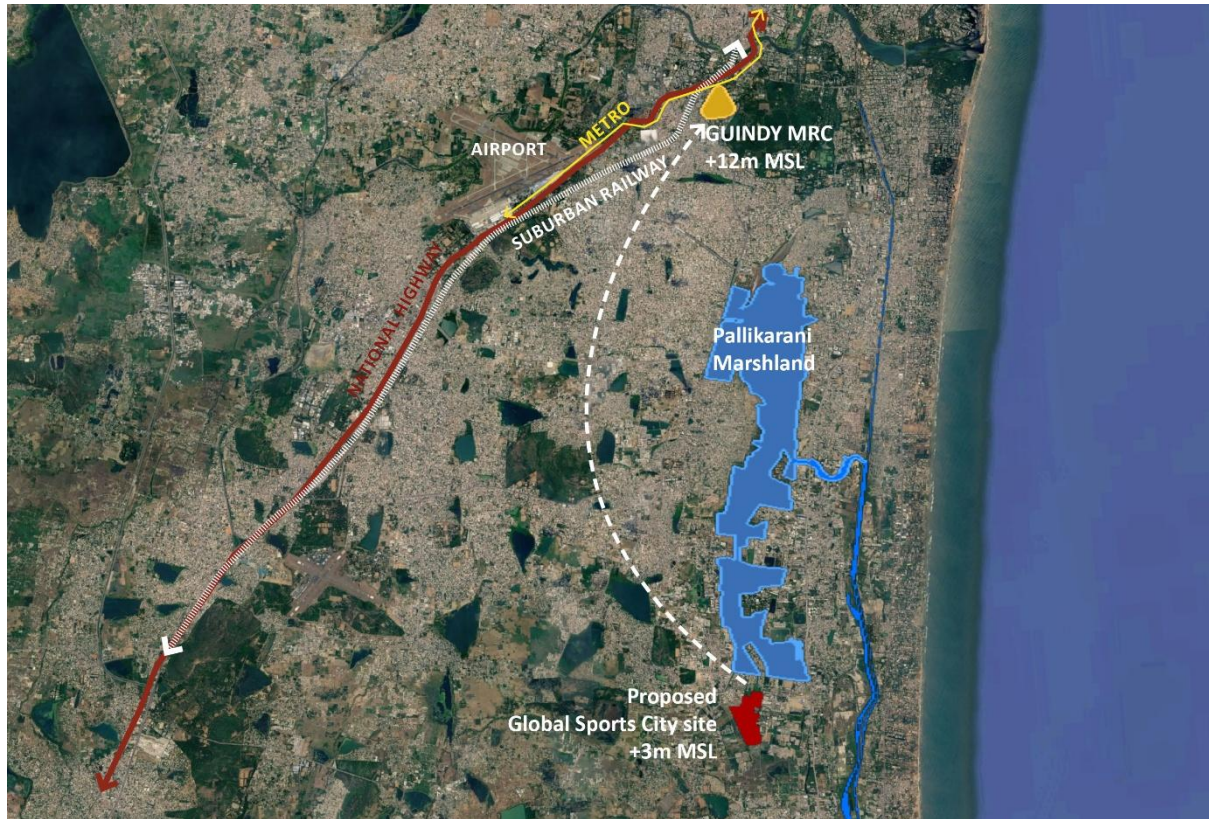
4.1 Why Guindy Race Course Merits Consideration

The Guindy Race Course occupies approximately 161 acres in the heart of Chennai. Following the Government's recovery of approximately 148 acres from the Madras Race Club in 2024, the property is now largely under Government control and is being managed as a strategic public asset.

The site offers several important planning advantages.

- Government-controlled land with minimal land acquisition challenges.
- Approximately 161 acres, substantially larger than the proposed 112-acre Sports City.
- Around 100 acres of contiguous, flat and largely unobstructed land, suitable for accommodating a major sports campus.
- Located at an elevation of approximately +12 metres above Mean Sea Level (MSL), compared with approximately +3 to +3.5 metres MSL at the proposed Semmanchery site.
- Existing compound wall and controlled access.
- Immediately adjacent to the Velachery Aquatic Complex, providing opportunities to integrate existing sports infrastructure into a larger multi-sport precinct.
- Excellent multimodal connectivity through Chennai Metro Rail, suburban railway, Chennai International Airport and major arterial roads.
- Located outside the primary flood convergence landscape of the Pallikaranai catchment.

The Foundation does not suggest that Guindy Race Course is the only possible alternative. Rather, it demonstrates that technically feasible Government-owned alternatives exist and should be evaluated through a transparent scientific process.



Map showing the proximity of the MRC to public facilities



Aerial view showing the Guindy Madras Race Club campus

4.2 Comparative Assessment

Planning Criteria	Proposed Site – Semmanchery	Potential Alternative – Guindy Race Course
Land Area	~112 acres	~161 acres (approximately 148 acres under Government control)
Land Ownership	Environmentally sensitive site with multiple statutory considerations	Government-controlled land
Elevation & Flood Resilience	+3 to +3.5 m MSL ; located within the Pallikaranai flood transition and runoff convergence landscape, making it inherently more vulnerable during extreme rainfall events.	Approximately +12 m MSL ; nearly 8–9 metres higher than the proposed site and located outside the primary Pallikaranai flood convergence landscape, providing significantly greater natural flood resilience.
Topography	Low-lying, hydrologically sensitive landscape	Large, relatively flat and open terrain suitable for development
Existing Sports Infrastructure	New facilities required	Adjacent to the existing Aquatic Complex, enabling an integrated sports precinct
Connectivity	Good regional connectivity	Excellent connectivity through Metro Rail, suburban rail, Chennai International Airport and major arterial roads
Long-term Engineering Requirements	Likely to require significant flood mitigation, land filling and drainage interventions	Lower dependence on flood protection and major drainage modifications
Long-term Sustainability	Greater environmental and hydrological constraints	Better environmental compatibility, operational resilience and lower life-cycle costs

4.3 Recommendation

The comparative assessment indicates that the Guindy Race Course possesses several natural and strategic advantages over the presently proposed Semmanchery site.

In particular, its higher elevation (+12 m MSL), location outside the Pallikaranai flood transition landscape, Government ownership, availability of contiguous open land, proximity to the existing Aquatic Complex and excellent regional connectivity make it a strong candidate for detailed scientific evaluation.

Accordingly, Uvakai Research Foundation recommends that the Government constitute an independent multidisciplinary expert committee to undertake a transparent comparative assessment of all feasible sites using consistent criteria, including hydrology, elevation, environmental sensitivity, climate resilience, accessibility, implementation feasibility and long-term public benefit.

Relocating the project to the most scientifically suitable location would not diminish the Government's vision. Rather, it would establish the Global Sports City as a national benchmark for climate-resilient, environmentally responsible and future-ready public infrastructure planning.

CHAPTER 5

Conclusions and Recommendations

5.1 Policy Position of Uvakai Research Foundation

Based on the hydrological, environmental and governance assessment presented in this report, Uvakai Research Foundation concludes that the presently proposed site at Semmanchery is not a suitable location for developing the Global Sports City.

The site forms part of the Pallikaranai flood management landscape, performs important hydrological functions, and is situated within an environmentally sensitive area that protects downstream communities from flooding. Locating a major public infrastructure project at this site would require significant environmental trade-offs and could increase long-term flood risk in one of Chennai's most vulnerable urban landscapes.

The Foundation therefore recommends that the Global Sports City be relocated to a more scientifically suitable location. Such a decision would strengthen the Government's vision by ensuring that this landmark investment is planned in a manner that is environmentally responsible, climate-resilient and sustainable over the long term.

5.2 Recommendations

1. Stop Further Development at the Present Site

Suspend all further implementation, construction and irreversible land modification activities at the proposed Semmanchery site and formally reconsider the project location based on the findings of this assessment.

2. Identify and Evaluate Alternative Sites

Initiate a transparent comparative assessment of alternative locations using objective criteria, including hydrology, environmental sensitivity, climate resilience, accessibility, engineering feasibility and long-term economic sustainability.

3. Consider Guindy Race Course as a Preferred Alternative

As part of the comparative assessment, undertake a detailed technical evaluation of the Guindy Race Course. The site presents several strategic advantages, including:

- Government-controlled land.
- Approximately 161 acres, with around 148 acres under Government control.
- Large contiguous areas of relatively flat and open land.
- Existing secured campus with controlled access.
- Immediate adjacency to the existing Aquatic Complex, enabling an integrated sports precinct.
- Excellent connectivity through Metro Rail, suburban rail, arterial roads and Chennai International Airport.
- Significantly lower hydrological risk compared with the proposed Semmanchery site.

4. Complete Essential Technical Studies for the Final Site

Before confirming the final location, complete:

- Basin-level hydrological assessment.
- Flood modelling.
- Environmental Impact Assessment.
- Climate resilience assessment.
- Biodiversity assessment.
- Integrated infrastructure planning assessment.

5. Ensure Transparency and Public Participation

Publish all technical studies related to site selection and undertake structured public consultation before finalising the project location.

5.3 Final Statement

Tamil Nadu deserves a world-class Global Sports City. However, a world-class project must also be planned in a world-class location.

Relocating the project from the hydrologically sensitive landscape of Semmanchery to a scientifically suitable alternative would protect the Pallikaranai catchment, reduce long-term flood risk, safeguard downstream communities and create a landmark sports infrastructure that reflects the principles of scientific planning, environmental stewardship and climate resilience.

The question is no longer whether Tamil Nadu should build a Global Sports City. The evidence presented in this report indicates that it should—but at a different location.

ABOUT UVAKAI RESEARCH FOUNDATION

Uvakai Research Foundation is an independent research and public policy institution working at the intersection of water, ecology, spatial planning, governance, and sustainable development. Through scientific research, spatial analysis, policy advocacy, and community engagement, the Foundation promotes evidence-based planning and resilient infrastructure that aligns development with the natural functioning of landscapes.



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