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\* **IN THE HIGH COURT OF DELHI AT NEW DELHI**% *Judgement delivered on: 30.06.2023*+ **W.P.(C) 1304/2020**

SUDHIR GUPTA

..... Petitioner

Through: Mr. M.L. Lahoty, Sr. Advocate with  
Mr. Paban K. Sharma, Mr. Anchit  
Sripat and Mr. Pranab Kumar Nayak,  
Advocates.

versus

DELHI DEVELOPMENT AUTHORITY &amp; ANR ..... Respondents

Through: Mr. Ajay Verma, Sr. Advocate with  
Mr. Sanjay Katyal, Standing  
Counsel, DDA and Ms. Latika  
Malhotra, Mr. Nihal Singh,  
Advocates along with Mr. S.P. Singh  
Executive Engineer, Siri Fort, DDA  
and Mr. Sanjay Minotra, Senior  
Consultant.

Mr. Shubhang Tandon, Advocate for  
Intervener (CM APPL. 46055/2021)

**CORAM:****HON'BLE MR. JUSTICE NAJMI WAZIRI****J U D G M E N T****NAJMI WAZIRI, J****W.P.(C) 1304/2020, CM APPL. 40632/2021, CM APPL. 46055/2021,  
CM APPL. 13438/2022 & CM APPL. 39338/2022**

1. The Siri Fort Sports Complex (SFSC) is located in the heart of South Delhi. In the early nineteen eighties it was carved out of a larger green area of Siri Fort District Park. The latter now reduced to 155.33 acres.



Under the MPD-2021, the SFSC is shown as a “public stadium/ public sports facilities/ complex/ stadium/ sports centre”. DDA manages the said Sports Centre and is the land owning agency. DDA had floated a tender for conversion of football and hockey ground into synthetic surface/artificial turf at SFSC which presently have manicured natural grass. Apropos any work on DDA’s proposal, status quo has been ordered to be maintained from the first day the writ petition was taken up.

2. The petitioner is a permanent member of the SFSC and resident of the adjacent Asiad Village which has about 800 residential units. He objects to the laying of the artificial turf primarily on the following grounds that: (i) it is environmentally degrading; (ii) it is harmful to players and people in its vicinity; (iii) to cool the heat which is generated from the artificial turf, both on regular days and especially so on hot days, large quantities of water will be used just to keep the artificial turf soft and moist and playable, this will be wastage of good quality water (iv) it will rob the Sports Centre of natural earth and its concomitant benefits; (v) it is contrary to the international trend, including decisions of FIFA and FIH to shift from artificial turf to natural grass for playing football and hockey; (vi) the laying of artificial turf will lead to concretisation of the earth and the soil will be degraded; (vii) protection and improvement of greenery in and around the SFSC is the petitioner’s fundamental duty, which he asserts both as a citizen and as a member of SFSC; (viii) DDA holds lands in public trust, therefore, it cannot take up any action which disturbs the ecological balance of the area and (ix) DDA has the onus to prove that its action is



environmentally benign.

3. Mr. M.L. Lahoty, the learned Senior Advocate for the petitioner submits that artificial turf is laid on a bed which is prepared by a mixture of materials, including stones upto 300mm; the infill material of the synthetic turf is shredded rubber granules and silica sand; the rubber granules are composed of harmful chemicals such as, polycyclic aromatic hydrocarbons (PAHs) metals, phthalates, volatile organic hydrocarbons and semi-volatile organic hydrocarbons; both silica sand and granulated rubber are considered health hazards as granulated rubber is made from recycled car tyres which are toxic and may carry heavy metals which may leach into the ground water; such leachate may result in extensive and long lasting damage to the environment and ecology of the entire Sports Complex and its surrounding areas; it would be prudent to avert any such harm, especially because SFSC is surrounded by densely populated residential colonies of South Delhi.
4. The learned Senior Advocate for the petitioner further submits that artificial turf kills living organism in the subsoil, it would be impossible to rejuvenate the land with the artificial turf above. It would take years of remediation to grow back to natural grass after removal of the artificial turf. In any case, the benefits of natural grass as an emitter of oxygen and absorber of pollutant toxins in the atmosphere, would be lost. It is argued that for the adjacent Asiad Village, the water run-off from the artificial turf would contaminate the ground water in the surrounding area which would be an unfortunate irreversible occurrence for generations to come. He says that DDA's decision is not in keeping with the scientific reality and does not take into consideration the trend



- in international football and hockey. As regards the Hockey, the petitioner contends that the type of artificial turf may be different but damage to the environment and the natural soil, would be equally grave.
5. The learned Senior Advocate for the petitioner further submits that artificial turf tends to get far hotter than grass fields and its temperature can reach as high as 90° celcius. At these temperatures, even with athletic shoes on, children and players can get their feet burnt. It is rare that even on a very hot day natural grass field exceeds even half that heat. The synthetic tracks are popular mostly in European countries and in the USA where the climatic conditions are altogether different from India. Asian countries which are closer to the Equator are much hotter, the summers are longer with many weeks of intense suffocating heat, accompanied with strong, dry and dusty surface winds till late in the evening. In a country like India, more particularly in Delhi, where the temperature during summer months spikes upto 47-48° celcius, the temperature on and around the artificial turf may further increase by at least 10-15° celsius, thereby posing a serious health hazard, not only for the hockey and football players on the artificial turf but also to users of jogging/walking track which surrounds both the football and hockey fields.
  6. He further submits that the artificial turf does not offer the cooling effect of water evaporation that comes from natural turf because on artificial turf, water runs off due to the specially designed lay of the field. The water is not retained on the surface to evaporate gradually and lend its cooling effect and earthy smell to the surrounding areas. When an artificial turf field drains after a heavy rain or intense



watering, the run-off containing lead, infill materials and toxic substances could leach into and contaminate surface water and ground water. Furthermore, hot rubber can release harmful gases of volatile organic compounds which could have serious health hazard for the players, in a natural grass field, the land is porous and a lot of rainwater is absorbed into the soil; that medical experts have found that bacteria from blood, sweat and skin cells, can survive and stay for more than 90 days on polyethylene plastic, the compound which is used to make synthetic turf blades.

7. He contends that the natural grass fields have the ability to repair and regenerate themselves. Natural grass gives good traction and protect players from injury to the body from falls whereas artificial turf pellets are rubber material which is harder and denser than natural grass and creates a harder impact on player's legs and joints; in Europe the well known football players had started a campaign to ban the artificial turf and replace it with natural grass in football fields after a player<sup>1</sup> suffered an injury on artificial turf.
8. He further contends that the open natural grass football and hockey fields are in consonance with the micro ecology of the area around it, including a golf driving range, a mini golf course, a larger triangular area, cricket ground, walking/jogging track and other areas. He says that if suddenly, in the middle of the otherwise green areas both pleasing to the eyes as well as for the users, the artificial turf is laid, it will lend to generating of heat from it, spending of thousands of litres of

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<sup>1</sup> Odell Beckham Jr.



- water just to make the artificial turf playable. It would emit an artificial odour and render the abutting walking track less attractive. He relies upon a number of study material filed alongwith the additional affidavit.
9. On the technical aspect of artificial turf the respondent- DDA has filed its own material to contend that there is a trend towards artificial turf for hockey and football. Reliance is placed upon projection of growth of this market between 2022-27. DDA also contends that there are many organizations in various parts of the country where artificial turf has been laid and FIFA as an organization proposes the artificial turf world-wide. The artificial turf proposed to be laid would be of approved FIFA standards; that there are many advantages of the use of artificial turf over the natural turf which includes conservation of water, elimination of harmful pesticides, reduction of noxious emissions thus being environment friendly, ideal for inclement weather, lower risk of injuries to players due to evenness of surface and cost effectiveness, etc; that the artificial turf to be installed at SFSC is meant for training purposes and not for holding any international competition, the turf is to be used throughout the year; the proposal to lay the artificial turf is for the benefit of sportspersons.
10. While it may not be necessary for this Court to go into the respective merits and demerits of artificial turf, and its effect on human health and the environment, one cannot entirely overlook the extensive negatives of artificial turf for the hot micro climate of the area and the deleterious impact it will have on the surroundings. The court would also take note of the submissions of Mr. M.L. Lahoty, that in the recent past three FIFA related football World-Cup events were held on natural grass;



FIFA World Cup in 2022 at Qatar was played on turf grass i.e. natural grass, no artificial turf was used at any of the eight stadiums or even at the training grounds; that the temperature at Qatar and Delhi are similar during summer and it is in keeping the suitability of turf grass, for football to be played in a high and humid environment, that the World Cup was played on natural grass. Furthermore, the 2023 Women's World Cup in France is proposed to be held only on turf grass fields. The FIFA U-17 Women's World Cup, 2022 at Bhubaneswar also was played on natural grass field, so was the Santosh Trophy held at Mallapuram, Kerala at Payyanad Football Stadium near Manjeri. DDA has also not rebutted Mr. Lahoty's submission that the renowned Salt Lake Stadium at Kolkata, which earlier had an artificial turf, has replaced it with natural grass field at the cost exceeding many scores of crores of rupees and for this purpose the said stadium was closed for a number of years to facilitate rejuvenation of the land. He also submits that in the United Kingdom, football players are objecting to playing on artificial turf.

11.DDA contends that the court would look into at the specific and limited prayer in the petition and not to any area outside the SFSC/ and to any order/proceeding of the Supreme Court/NGT as it is not related to Hockey and Football field. It contends that this is not a PIL and no relief can be sought to any aspect outside the SFSC. He objects to the court looking into material which formed part of another proceeding. The court finds the said contention untenable because there can be no bar to reference to records of court proceedings or judicial verdicts. DDA was the main party in the proceedings, whose records are sought



to be referred to by the petitioner and it pertains to the SFSC and the adjoining green area/deemed forest. During 2009-2010, DDA had sought to construct new buildings and otherwise add concrete in the earth in and around SFSC. Many hundreds of old trees, which were more than 100 years old, were cut down. In this regard, the court cannot ignore reports of experts, including reports of the renowned architect and city planner- Mr. Charles Correa, who was appointed by the Supreme Court to assist in *T.N. Godavarman Thirulkpad vs UOI*, (1997) 2 SCC 267, as well the report and opinion of Mr. Harish Salve, the learned Senior Advocate appointed as *Amicus Curiae* by the Supreme Court. The report of the *Amicus Curiae*, *inter-alia*, reads as under:

“ ...

4) *When asked as to why this was done, the DDA senior officials said that it was necessary to remove these, trees to make two stadia admeasuring 80000 sq meters. When they were asked as to why it was necessary to construct the stadia here (which would involve damaging old existing forests) and had they evaluated other sites which would not cause environmental damage, they said that the site was selected by the "games authorities" and that the question of such an evaluation was not in their domain.*

...

6) *Further enquiries conducted have revealed as under:-*

a) *The DDA has callously destroyed the available green cover and lung space of the area in that 836 trees which were more than 100 years old have been felled down despite strong resistance from the local inhabitants.*

b) *on verification it appears that what the DDA required was only 30,000 sq meters of land but it had requisitioned more 14 acres of land - reasons for doing so are not clear.*





*c) Further, before felling of trees, viable alternative were not considered nor explored. No cost-benefit analysis and the impact of the felling on tress on the environment were undertaken. The only explanation given by the DDA officials present at the Site was that they were implementing the decision taken by the Games Organizing Committee. No justification for felling of such a large number of trees was forthcoming.*

*7) It is submitted that the land from where the century old trees have been cut is adjoining the Ridge Area and also falls within the definition of 'forest' (deemed forest- as laid down by this Hon'ble Court in W.P.' (C) No.202 of 1995 vide Order dated 12.12.1996). This area is a source of rich oxygen to the residents of the area - with these century old trees making substantial impact on the environment in terms of lowering the temperatures in and around the area. Furthermore, there are only a handful of such similar green patches as the 'lungs" of the city - making it imperative that they are preserved and protected. It is therefore, agonizing that the authorities, in their ignorance coupled with a heightened sense of indifference and apathy, have- undertaken felling of trees in complete disregard to its consequences. It is submitted that any such cutting of trees in the said area without permission of this Hon'ble Court also amounts to gross and willful violation of the orders of this Hon'ble Court.*

...

*15) It is submitted that it is against the basic principles of sustainable development that for providing facilities for a limited period of two weeks, invaluable century old trees - enhancing the environment and controlling the temperature - have been cut. Delhi's distinctive appeal lies in its historical heritage and its greenery. An unofficial count of the trees felled in the past four to five years is estimated to be around 40,000. Furthermore, the felling in the year 2007 was the most brazen and closer into the heart of the city's green lungs, with the trees were cleared for the High Capacity Bus Service (HCBS) corridors and road-widening. It is submitted that the needs of a*



*"transport plan" or the Games and with it a mirage of a 'world class city' must not destroy what is special about the city, in that, at the cost of sacrificing Delhi's green heritage.*

...

*17) It is submitted that this project is simply impermissible. There can be no justification for removal of such a large number of trees. Besides, if this project is allowed to be completed, then*

*a) It will involve cutting of over 100 more trees,*

*b) It will involve removing the existing driving range and relocating it. This will necessarily involve removing the existing green cover on the periphery of the driving range,*

*c) The impact of doing all this on the adjoining forest is bound to be adverse. No study has been done as regards the consequences of this*

*d) If this stadia are to be used, it will significantly increase the traffic on an already congested road - no evaluation of an impact of this has been done,*

*e) There is no clear statement that no other suitable area in the city is available for this project. In this context it is submitted that such occasions (such as hosting games) should be used to create new assets rather than damaging existing assets.*

*18) Further, it is, respectfully prayed that the appropriate action, be taken against the persons n responsible for felling the trees in violation of the Forest (Conservation) Act, Environment (Protection) Act and in total disregard to the letter and spirit of the various orders passed by this Hon'ble Court.*

...”

12. In all fairness, DDA being a public agency should have bought this material to the court's notice.

13. One cannot have a key-hole view of the environment or blinkered perspective of it. The environment is much larger than a simple football



or hockey field. In a city like Delhi, the ecology of small pockets of green areas, serving as lungs for the city especially amidst densely populated residential, commercial and industrial localities is crucial and fragile. Therefore, greater caution and sensitivity has to be exercised, lest an inexorable harm is set in motion which may continue to blight the city for generations to come. Development is not always the creation of roads, buildings, civic or industrial infrastructure, etc. In a world of technology, travel and tearing hurry, development is also manifested in the retention of delicate ecology and green area of a neighbourhood, so as to maintain the environmental equilibrium for posterity. Land-owning agencies hold land in trust for future generations, they need to exercise such care and caution. There can hardly be a case for this city being robbed of its green spaces in a few years only because in one project or the other, there is resultant concretisation of the earth. Today it is two sports fields, tomorrow it would be something else. The creeping concretisation, through seemingly innocuous projects, need to be examined from the prism of ecological balance. In *T.N. Godavarman Thirulkpad (supra)* examined DDA's proposal for extensive cutting and uprooting of trees in and around SFSC. It was stopped by the Supreme Court so that the ambience of greenery was not disturbed. A Centrally Empowered Committee was created. Insofar as there is a reference to the orders passed by the Supreme Court, it is the duty of the court to look into the entire issue comprehensively. The aforesaid case was transferred by the Supreme Court to the National Green Tribunal (NGT), and was disposed-off on 26.07.2017 by a Bench of five-members of the NGT. It



directed DDA *inter alia* as under:

*“ 15. ...The Applicant in its latest Affidavit dated 13th January, 2016 had made certain suggestions which are obviously post completion of the project. We have to examine the case in its entirety. To a large extent, it is a fait-accompli but still there is scope for protecting the green areas as well as putting the authorities concerned on notice that such projects in such areas should not be constructed in a casual manner. In fact, construction of such project in these areas should be avoided. This is an area right in the heart of the city of Delhi and is surrounded by thickly populated areas. It was a green area and was operating like lungs for the city. Damage to the environment and particularly the greenery including trees and other environmentally rich area has already been done...*

*...what cannot be disputed is that definite directions need to be passed in the interest of environment and maintaining the greenery. Whatever be the numbers, fact of the matter is that due protection is required to be provided to the existing trees as well as the trees/saplings that are to be planted and or have been already planted. Protection of the green areas and the trees is an essential feature of this case. Due regard has to be given to the Precautionary Principal. The sustainable development would essentially require not only that the development should be carried with due regard for environment but even the developed areas have to be maintained and utilized in a manner that they do not cause damage to and degradation of the environment. In order to apply these principles effectively to the facts of the present case, we are required to issue certain directions in the interest of environment and ecology.*



*Thus we dispose of this application with the following directions:”*

16. ....

*b. We restrain the DDA and any other authority from cutting and felling to trees or shrubs existing in any manner whatsoever in the entire area, forest and other areas surrounding the said complex.*

*i) We direct the Delhi Forest Department to identify the deemed forest areas in and around the stadium as well as other deemed forest areas that fall under the control of DDA and other agencies and submit the report to the Committee. The Committee shall verify the claim of DDA that it has planted 21000 trees in that area. Depending upon such physical verification, the Committee would issue appropriate directions for planting of such sapling of trees in the areas to be specified in addition to what has been directed in this order.*

*I. We direct the Committee to issue instructions to the concerned authorities, including DDA and ensure that the greenery of the entire complex is duly maintained and no encroachment of any kind is permitted on any part of the area of the project.”*

*नस्यमेव स्वामि*

*(Emphasis supplied)*

14. The last direction, noted above, commands DDA to ensure that the greenery of the entire complex, i.e. the SFSC as well as outside it in the deemed forest/green area, is duly maintained. By its proposed plan DDA would convert natural grass to artificial turf, the same would be in breach of the aforesaid directions and result in the destruction of a significant part of the open and naturally green area of the complex. The



proposed plan is impermissible and illegal. Therefore, such conversion of laying of artificial turf will have to be abandoned by the DDA.

15. Like the various other departments and agencies, who are incharge of designated forest areas, deemed forests, neighbourhood parks, DDA holds large District Parks, which are basically wooded areas. It is the duty of all such entities to ensure that the natural environment is maintained, safeguarded and improved. The laying of artificial turf will be an irreversible damage to not only the football and hockey fields but to the contiguous green area and is likely to affect the people using the immediately adjacent walking path. If DDA has assessed the need for artificial turf, it may consider laying it at another place which does not have the aforementioned legal protection, as directed by the NGT and in terms of the order of the Supreme Court. However, there too it will have to ensure that the artificial turf poses no threat or harm to the local ecology. Irrespective of ownership of the land, DDA will need to protect the green areas especially in a city where the ever burgeoning population and the concomitant increase in number of vehicles and dwelling units, adds to the environmental pressure and pollution. SFSC lies in the heart of South Delhi and the adjoining greenery needs to be protected at all cost, as the entire area is a green lung for the city. A park or a green area in the midst of a thickly populated residential area or commercial area is of a far greater value than a forest removed kilometres away from a human habitation.

16. While land may belong to individuals and land-owning agencies, the environment belongs to all humans, indeed to all living creatures. Each living being needs to be protected from damaged ecology. There is a



shared duty and responsibility on each individual to protect the environment from harm. For Indian citizens, there is a constitutional exhortation and duty to do so under Article 51A (g), which reads as under:

*“51A. Fundamental duties.—It shall be the duty of every citizen of India—*

...

*(g) to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;*

...”

17. Like a responsible, vigilant and spirited citizen, the petitioner has stepped forward to protect the environment and ecology of his neighbourhood and of the SFSC, of which he is a member. The lone voice of a senior citizen over 75 years of age, who may simply enjoy the walks in and around the SFSC and who may not necessarily be playing any field sports, is sufficient to alarm one and all against the prospective damage to the environment and breach of judicial orders. He has *locus-standi* to file this writ petition. The direction of the Supreme Court<sup>2</sup> and of the National Green Tribunal to DDA and to “ensure that the entire complex is duly maintained” is of much significance and was for the purpose of protecting the greenery in the entire area. It shall be so observed. The DDA shall maintain the status quo passed in this petition on 04.02.2020. The said order is made absolute. The football and hockey fields which presently have natural grass shall not be destroyed or altered to artificial turf.

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<sup>2</sup> Not to cut the large number of trees in and around the SFSC.



18.The writ petition is allowed and disposed-off in terms of the above.

**NAJMI WAZIRI, J**

**JUNE 30, 2023/kk**

