

**BEFORE THE NATIONAL GREEN TRIBUNAL  
(PRINCIPAL BENCH), NEW DELHI**

**Original Application No. 33/2012**

**21<sup>ST</sup> AUGUST, 2013**

**CORAM:**

- 1. Hon'ble Shri Justice V.R. Kingaonkar  
(Judicial Member)**
- 2. Hon'ble Shri Dalip Singh  
(Judicial Member)**
- 3. Hon'ble Dr. G.K. Pandey  
(Expert Member)**
- 4. Hon'ble Prof. A. R. Yousuf  
(Expert Member)**
- 5. Hon'ble Dr. R.C. Trivedi  
(Expert Member)**

**B E T W E E N:**

1. Gaur Green City Residents Welfare Association,  
Through its Secretary Shri Jigyasu Pant,  
E-4039, Gaur Green City,  
Vaibhav Khand, Indirapuram,  
Ghaziabad (U. P.)

....Applicant

**A N D**

1. The State of U.P.  
through the Secretary,  
Ministry of Urban Development,

Government of U.P.

Civil Secretariat, Vidhan Sabha Marg,

Lucknow, (U.P.) - 226001

2. The Secretary,

Department of Environment,

Government of U.P.,

Civil Secretariat ,Vidhan Sabha Marg,

Lucknow, (U.P.) – 226001

3. U.P. Power Transmission Corp. Ltd.,

(Bid Process Coordinator)

Through its Chairman

Regd. Office: UP Power Transmission Corp. Ltd.

15<sup>th</sup> Floor, Shakti Bhawan Extension,

14-Ashok Marg,

Lucknow (U.P.)

4. Western U.P. Power Transmission Corp. Ltd.,

C/o MEIL, 7<sup>th</sup> Floor, Building No. 10,

Tower 'C', DLF Cyber City, Phase-II,

Gurgaon (Haryana).

5. Ghaziabad Development Authority,

Through its Vice-Chairman,

Old Bus Station

Ghaziabad (U.P.)

6. The National Highway Authority of India (NHAI)

G-5 & 6, Sector-10,

Dwarka,

New Delhi – 110075

7. The Secretary

Ministry of Environment & Forests,

Paryavaran Bhawan,

Lodhi Compex,

New Delhi

.....Respondents

**(Advocates appeared: Mr. Ravi Prakash Gupta along with Mr. S.K. Chauhan, Ms. Suman Gupta, Advocates for the Applicant and Ms. Reena Singh along with Mr. Arjun Singh, Advocates for Respondents No. 1&5, Ms. Swapna Seshadri, Advocate for Respondent No. 3 and Mr. Sanjay Upadhyay along with Ms. Eisha Krishan and Ms. Manisha Badoni, Advocates for Respondent No. 4)**

NGT

## J U D G M E N T

This is an Application filed under Section 14 of the National Green Tribunal Act, 2010. The Applicant is an Association styled as “Gaur Green City Residents Welfare Association”. The Applicant will be referred to hereinafter as “RWA”, as it has described so in the application i.e. abbreviation of the words “Residents Welfare Association”.

2. The Applicant challenges installation of a 400 KV Gas Insulated Power Sub-station (for short, GIS) over Green Belt running parallel to NH-24.

### **Undisputed Facts:-**

3. Ghaziabad Development Authority (for short, GDA) decided to develop residential localities alongside National Highway(NH-24). A planned layout was drawn under Section 9 of the UP Urban Planning and Development Act, 1973. The Master Plan drawn by the competent authority was finalised and duly approved by the UP Government. The development plan indicated a stretch of 100 meter wide land running parallel to NH-24 as “Green Belt”.

4. The land beyond the Green Belt on its northern side was divided into several plots for the purpose of development and construction of residential colonies.

5. The GDA sold plot No. 8 at Vaibhav Khand, Indirapuram to M/s. Gaursons India Ltd. on 30.04.2004 under

Group Housing Scheme. The plot no. 8 is situated at a short distance of about 30/40 meters on northern side of the Green Belt which is running parallel to NH-24. M/s. Gaursons India Ltd. developed that plot and constructed buildings comprising of approximately 765 flats. The flats are occupied by about the 3000 residents. The RWA takes care of the welfare of the residents of the colony. The developer and builder named the colony as “Gaur Green City”.

6. The Horticulture Department of GDA planted certain trees and encouraged the residents of the colony to maintain the greenery of the “Green Belt” including the responsibility of taking due care of the plantations.

7. Somewhere in the first week of May 2012, the members of RWA noticed presence of labourers on the Green Belt. They noticed that the labourers were removing bushes from the Green Belt. The labourers were also engaged in putting up temporary brick made huts with roof top of corrugated zinc sheets. On enquiry by the members of RWA, labourers informed that they were engaged by a contractor for execution of contractual work for installation of the GIS Sub-station. The RWA thereafter contacted concerned authorities.

8. An application was made under provisions of the Right to Information (RTI) Act, on 14.05.2012 to Horticulture Department of GDA. The response to such application was that a part of the Green Belt was being utilised for installation of the GIS power Sub-station. The Applicant made representations,

agitations and demonstrations. The Horticulture Department of GDA informed the Applicant that around 5000 trees were planted by the GDA over Green Belt of which the expenditure was around Rs. 5,8,15,491/-.

9. The underground open space of the GIS Power Sub-station has been licensed by the GDA to UP Power Transmission Corporation Limited (UPPTCL) (R-5). The Western UP Power Transmission Corporation Limited (WUPPTCL) has 100% shareholding in the hands of UPPCL. The WUPPTCL invited bids on the basis of Public-Private Partnership (PPP). The work of installation of GIS Sub-Station in question was assigned to Respondent No. 4 (WUPPTCL).

**Conspectus of the Dispute:-**

10. According to the Applicant, the installation of the 400 KV GIS Sub-Station over part of the Green Belt, has denuded a part of the Green Belt by felling of trees by the Project Proponent (Respondent No. 4). The trees have been cut down without obtaining prior permission of the competent authority of the Forest Department. The destruction of private forest as well as removal of the bushes from the Green Belt will adversely affect the environment. The installation of 400 KV GIS Power Sub-Station will cause hazardous Electro Magnetic radiation emitted by extra high voltage power sub-station. The Electro Magnetic Field (EMF) will create Non-Ionising radiation that would cause health hazard, particularly, to the children and old members of the Applicant. The major impact of such Electro Magnetic



radiation causes increase in the risk of developing Childhood Leukemia. The close distance of GIS to the residential locality of the Applicant is thus environmental threat as well as probable hazard to the members of the Applicant. The Childhood Leukemia may be caused due to proximity of the high voltage (ELF-EMF). Closer the distance of the Electro Magnetic Field created by such GIS, more would be the risk of such health hazard. The scientific studies have indicated that such GIS causes health hazard to the children and the old aged persons. The Applicant was not given any hearing by the Respondents prior to approval of the installation of proposed GIS Power Substation. The project in question is, therefore, illegal, impermissible and liable to be stalled.

11. We do not wish to narrate in detail some of the other pleadings of the Applicant. For, all such pleadings/averments pertain to the sentiments of the members of RWA, and also why they purchased the flats due to proximity of the green belt. The Applicant's case further is that the Master Plan, 2021 has been approved by the Ghaziabad Development Authority (GDA) in its meeting dated 20<sup>th</sup> June, 2005. The Master Plan has become final u/s. 11 (3) of the U.P. Urban Planning & Development Act, 1973. So, without permission of the competent authority width of the Green Belt as reserved under the Master Plan, 2021 cannot be reduced. Still, however, some reserved areas have been leased out to private parties like "Shipra Mall". The proposed GIS Power Substation could be relocated elsewhere. It

is, however, illegally being installed on a patch of the Green Belt in front of Gaur Green City. The Members of RWA are anguished due to such proposed work which will dampen their hope to live near green area. Hence the Application

12. Coming to the counter reply of the Respondents, it is not necessary to give separate details of the pleadings of each of the Respondents. In general, the main contention of the Respondents is that the land was plotted on basis of the master plan which included facilities to be provided, inclusive of power transmission sub-station. Therefore, the developer/builder and the Applicant had prior knowledge through the master plan regarding the proposed power sub-station contemplated to be installed on the Green Belt. The 400 KV GIS Sub-Station is essentially required to maintain chain of transmission for benefit of a large number of consumers including the residents of Gaur Green City. The installation of the 400 KV GIS at the proposed place is necessary in order to maintain electricity supply in the area. It is denied that installation of the 400 KV GIS would cause environmental threat. The technical benefits of the GIS are that it occupies 75% less space as compared to a conventional sub-station; it is enclosed by using SF<sub>6</sub> Gas as insulation; it consists of bus bars, circle procures, etc. with gas monitoring equipment for local control. So also, it can be located close to load centres so as to reduce transmission and distribution losses. The GIS Substations are being regularly installed by the Central Transmission Utility-Power Grid



Corporation of India at prominent places like AIIMS, Ram Manohar Lohia Hospital, Maharani Bagh and other thickly populated places in Delhi.

13. The information regarding plantation of 5000 trees as furnished by the Horticulture Department of UP, in response to RTI Application of the Applicant, is in the context of total number of trees which have been planted on the entire stretch of the Green Belt and not restricted to the plot which is being utilised for the proposed installation of the GIS Power Sub-station. The Applicant has erroneously alleged that trees have been cut down by the Project Proponent and that the site is totally destructed. The Respondents have assured that the afforestation as needed will be done by the Project Proponent (Respondent No. 4). The Respondents categorically denied that installation of the GIS Power Sub-station will cause health hazard to the members of the Applicant (RWA). They refuted the allegation that the proposed GIS Power Sub-station will cause damage to the environment. They pointed out that a small patch of Green Belt comprising of 37378.6 sq. meters out of a total area of 131000 sq. Meters, will be utilised for installation of the GIS Power Sub-station. According to them, that will not adversely impact the Applicant (RWA). The Respondents submitted that installation of 400 KV Power Sub-station is essential since it is part of a chain of Power Transmission system. They have further submitted that the entire power transmission system is duly approved by the Delhi Central

Electricity Authority (DCEA) and Northern Regional Power Committee. They refuted all allegations in the context of destruction of the Green Belt and the possibility of Electro Magnetic Field which may be detrimental to health of the members of Applicant (RWA). On these premises, they sought dismissal of the Applicant.

**Submissions of Counsel:-**

14 The Counsel for the Applicant contended that the Green Belt cannot be used for any purpose, particularly, installation of 400 KV GIS Power Sub-station. He argued that the Master Plan 2021 for the City of Ghaziabad gives recognition and protection to the Green Belt. He referred to Chapter-7 of the Master Plan, 2021. He argued that the width of the Green Belt is already reduced from 300 meters to 100 meters though, as per the Master Plan, it should have been 300 meters. He further argued that the Applicant i.e. residents, of the Gaur Green City, will be victims of Electro Magnetic Radiation which is health hazard and ought to be avoided. He further submitted that the trees could not have been chopped from the Green Belt without due permission of the UP Forest Department. He argued that the GDA had no legal right to allocate any part of land of Green Belt to the Project Proponent (Respondent No. 4).

15. The Learned Counsel for the Applicant further submitted that the installation of GIS Power Sub-station is impermissible in view of the reservation enumerated in the Master Plan of 2021 drawn and finalized by the GDA. He argued

that the transmission service provider (Respondent No. 4) is responsible for acquisition of land for installation of the sub-station as per terms of the agreement. He contended that the Project Proponent (R-4) did not consider other open sites available for the purpose nor has followed due procedure before making final selection of the patch of the Green Belt for the purpose of such installation. He argued that the GIS Power Sub-station falls within proximity of the residential area and, therefore, the inhabitants are likely to be exposed to the dangerous Electro Magnetic Field. He argued that the respondents have committed breach of the UP Forest Policy, 1998. He invited our attention to the clauses enumerated in the UP Forest Policy, 1998. He further argued that the cutting down of trees at the place of the Green Belt is clear violation of the UP Protection of Trees Act, 1976. He argued that definition of the expression "Forest" as per the dictionary meaning will also include "patch of trees planted by human agency". He submitted that under provisions of the UP Protection of Trees Act, 1976 a forest land also means a land intended to be used as forest and, therefore, the land reserved for Green Belt must be treated as forest.

16. The Learned Counsel further contended that in "*NOIDA Park*" case, the Apex Court has not rejected the case of man-made forest in the light of observations recorded in paragraph 30 thereof. His further contention is that the

Judgment of “NOIDA Park” is *per-incuriam*. He contended that even otherwise it covers the man-made forest.

17. The Learned Counsel further argued that principles of natural justice have been violated by the Electricity Commission while allowing the Project Proponent (R-4) to install the GIS Power Sub-station within area of the Green Belt. He argued that the Regulatory Commission did not take into account the fact that the land is being used as a forest nor considered objections of public members, in particular, raised by one Shri Ramashankar Awasthi.

18. Much ado was made in the context of locational disadvantage caused on account of adverse impact of Electro Magnetic radiation which will be produced due to installation of the 400 KV Electricity Power Sub-station. He contended that major sources of ELF and EMF are the power lines (50/60 Hz) and high voltage power sub-stations. He referred to report of International Agency of Research and Cancer (IARC). He pointed out that the report of IARC opined that ELF – EMF could be “possibly carcinogenic to humans” based on their evaluation of limited evidence for carcinogenic in relation to Childhood Leukemia. He submitted that acute myeloid leukemia risk is highest in the first two years after birth and decreases afterward. Thus, it is his contention that the installation of the GIS Power Sub-station at a short distance from the residential locality is an eminent danger to the environment because it will give rise to various health problems viz. Headache, anxiety, etc. as well as

damaging the DNA, increasing risk to cancer, greater risk of Leukemia in case of infants, risk of neuro degenerative process and also of miscarriages in case of pregnant women.

19. In support of his various contentions, in the context of alleged health hazard likely to cause due to installation of 400 KV Power Sub-station, Learned Counsel for the Applicant relied upon testimony of Prof. Girish Kumar, who was examined as an expert witness in support of the application. He contended that though the Project Proponent (R-4) has referred to guidelines of International Commission on Non-Ionising Radiation Protection (for short, ICNIRP). Yet, version of the expert witness demolishes the applicability of such guidelines. He invited our attention to certain part of the statement of the expert witness. In short, the Learned Counsel contended that the installation of the 400 KV Power Sub-station is against the Municipal Rules, the norms of permissible use as per the Master Plan 2021, as well as due to violation of the provisions of the UP Forest Act and on account of adverse impact of Electro Magnetic radiation which may be produced if the same is allowed to be installed.

20. The chief bone of contention raised by the Respondents is that the advantage of improvised use of GIS Power Sub-station as compared to the conventional AIS cannot be overlooked. The Counsel submitted that the technical changes due to installation of GIS Power Sub-station will reduce radiation activity. It is argued that the expert witness, namely, Prof. Girish Kumar is proved to be incompetent and also an



interested witness. It is argued that the report of World Health Organisation (WHO) has segregated the frequency bands into three categories:

- a) static fields (0Hz);
- b) Electro Magnetic Field (upto 100 k Hz) which is also termed as (Extremely Low Frequency Field or ELF); and
- c) Radio frequency (RF) Fields (100 k Hz – 300 GHz)

21. The report of WHO is prepared in collaboration with United Nations Environment Programme (UNEP), International Labour Organization (ILO), International Radiation Protection Agency (IRPA) and International Commission on Non-Ionizing Radiation Protection (ICNIRP). It is argued that the standards of WHO as per the report drawn in the year 2007 are authentic and, therefore, the installation of 400 KV Power Sub-station as proposed will not emanate hazardous radio magnetic field.

22. The Counsel further argued that the questions pertaining to violation of the norms of the Master Plan 2021 do not come within ambit of the jurisdiction available to the NGT. It is further argued that the Respondents have not violated any provision of the Forest (Conservation) Act, 1980. Counsel submitted that all the safety measures are being adopted in order to ensure that there will be no adverse impact on the environment and health of the residents of the Gaur Green City or any other locality in the proximity of the proposed 400 KV GIS Power Sub-station. According to the Learned Counsel for the Respondents, the apprehensions described in the application

and sought to be ventilated through version of Prof. Girish Kumar are illusory. Learned Counsel contended that the Green Belt only comprises of certain plants and bushes and, therefore, it cannot be treated as “forest” in view of observation of the Apex Court in “NOIDA Park” case i.e. “*Okhla Bird Sanctuary*”**(2011) 1 SCC 744**. According to the Learned Counsel for the Respondents, the Application does not involve any “substantial question” relating to environment and as such it is liable to be dismissed.

**Issues for determination :-**

1. Whether use of Green Belt for installation of GIS Power Sub-station requires Forest Clearance (FC) under the Forest (Conservation) Act, 1980?
2. Whether the proposed GIS Power Sub-station is likely to create high intensity Electro Magnetic Field which will have adverse effect on health of the members of the Applicant, particularly, causing Childhood Leukemia, due to its proximity to the residential colony?
3. Whether the impugned project is being executed without proper appraisal and without consideration of other suitable sites available for installation of the Power Sub-station and, therefore, it is liable to be quashed?
4. Whether question or dispute in respect of violations of the Municipal Law and alleged changes in the Master Plan, 2021 fall within ambit of jurisdiction available to the NGT?

## **Discussion of reasons and findings:-**

Green Belt: Meaning and Question as to whether it can be termed as “Forest” for the purpose of Forest (Conservation) Act, 1980.

23. Ordinarily Green Belt is a stretch of land or part of land over which green plants, bushes or like plantation is done with a view to provide a stretch of greenery alongside National Highway. The Green Belt is made available to travellers of private transportation vehicles and transportation vehicles, including cars, buses, etc. to have better view outside such vehicles. The stretch of such Green Belt also acts as Buffer Zone for absorption of emission from the vehicles which pass from the Highway. The emission from the transport vehicles, therefore, does not directly go in the proximity of pedestrians who walk on other side of the Green Belt. Needless to say, it is also for protection of the pedestrians that the Green Belt is provided alongside of the National Highway. This is by way of precaution so as to avoid inhaling of carbon-mono-oxide, un-burnt hydrocarbons, carbon-di-oxide and other air pollutants which are emitted on account of emissions from vehicular traffic.

24. We have not come across definition of the words “Green Belt” nor there appear any particular Dictionary meaning attributable thereto. Areas that are designated as green belt must not be built upon because green belt is defined as an open space, however, that does not mean that no buildings can be erected in green belt. Buildings for agricultural uses, Mountain

Skip Hire Bourne and sanitation facilities, for instance, are usually allowed. In some cases, it is also possible to change the use of land in green belt and even gain permission for structures that are officially not allowed in green belt. However, such cases are very rare and the local authorities grant permission only if no suitable site for the building can be found in the urban centre or outside the green belt and there is an accessible business electricity source.

25. It is well recognized principle that keeping a stretch of land as “Green Belt” is a policy for the purpose of land use planning. The intention is to maintain linear character of the land in the proximity of such Green Belt. The objective of Green Belt Policy is to: protect natural or semi-natural environments; improve air quality within urban areas and to ensure better land use of areas within the bordering cities. The concept of Green Belt has evolved in recent years to encompass not only “Greenspace”, but also “Greenstructure”, taking into account of urban green spaces, an important aspect of sustainable development. Still, however, the providing of Green Belt is not free from hassles. It also means people will commute through the Green Belt, an area not designed to cope with high levels of transportation. Not only is the merit of a Green Belt apparently subverted, but the Green Belt may heighten the problem and make the city unsustainable. There are many examples whereby the actual effect of Green Belt is to act as a land reserve for future freeways and other highways.

26. All said and done, provision for Green Belt is matter of policy. It is not a matter of right for residents of any locality as such. We cannot ignore the fact that the Green Belt is not a part of the plot on which Gaur Green City is developed. It was known to the developer and builder as well as to the residents of the Applicant (RWA) that the Green Belt is not part of the property owned by them. Nor they have any Easmentory Right in the context of the Green Belt. Admittedly, there is distance of about 10/15 meters between the boundary wall of Gaur Green City and the residential buildings and also a distance of about 30 meter from the proposed GIS Sub-station and the boundary wall of the Gaur Green City. Needless to say, the Green Belt is neither appurtenant nor adjoining to the boundary of the Gaur Green City. This discussion would clarify topographical account of the Green Belt qua the Gaur Green City.

27. Now, let us consider the issue pertaining to necessity of obtaining the Forest Clearance (FC) under the Forest (Conservation) Act, 1980 for use of the part of Green Belt for the non-forestry purpose.

28. In this context, the Learned Counsel for the Applicant vehemently argued that Section 3 of the UP Forest Act was in the statute book as per the UP Act No. 21 of 1960. He pointed out that under Section 38-A (b) of the UP State Forest Act any tract of land covered with trees, shrubs, bushes or woody vegetation whether of natural growth or planted by human agency, and existing or being maintained with or without human effort, will



have to be deemed as forest. For the purpose of ready reference, Section 38-A may be reproduced as follows:

**Section 38-A:**

(b): *“forest” means a tract of land covered with trees, shrubs, bushes or woody vegetation **whether of natural growth or planted by human agency, and existing or being maintained with or without human effort**, or such tract of land on which such growth is likely to have an effect on the supply of timber, fuel, forest produce, or grazing facilities, or on climate, stream-flow, protection of land from erosion, or other such matters and shall include –*

- (i) Land covered with stumps of trees of a forest;*
  - (ii) Land which is part of forest or was lying within a forest on the first day of July, 1952;*
  - (iii) Such pasture land, water logged or non-cultivable land, lying within, or adjacent to, a forest as may be declared to be a forest by the State Govt.*
- (c) “forest land” means a land covered by forest or intended to be utilized as a forest; and*
- (ci) “prescribed” means prescribed by rules made under this Act]”*

The Learned Counsel further argued that due to felling of trees, the Project Proponent (R-4) has committed violation of Section 4 read with Section 10 of the UP Trees (Protection) Act, 1976. He invited our attention to circulars dated 03.01.2005 and 26.10.2010 issued by the State Government of UP.

29. So far as the issue regarding violation of the Section 4 read with Section 10 of the UP Trees (Protection) Act, 1976 is concerned, it is difficult to countenance the argument of Learned Counsel appearing for the Applicant. The Horticulture Department of GDA, no doubt, gave information that around 5000 small trees were planted on the Green Belt. That information, however, is of no much use to arrive at conclusion that all the said small

trees/saplings were planted on the stretch of the Green Belt which is proposed to be used for installation of GIS Power Sub-station. The Horticulture Department planted small plants over the entire stretch of the Green Belt and not only the site of the proposed part of the Green Belt which will be utilised for installation of the GIS Power Sub-station. The Applicant also failed to pinpoint as to how many trees were cut down from that site. Apart from this, it cannot be overlooked that the proposed project is the activity undertaken by the government itself. The plantation of saplings and small plants over the Green Belt does not imply that the trees were well grown. True, some site clearance was made by the Project Proponent for the purpose of the installation of GIS Power Sub-station.

30. Perusal of letter dated 03.01.2005 issued by the MoEF to the Principal Secretary (Forest), (All States/UTs) reveals that installation of Power Sub-station is exempted activity which will not come within ambit of Section 2 of the Forest (Conservation) Act, 1980. Similarly, the letter dated 14.02.2010 issued by the Principal Secretary, Government of UP reveals that no Forest Clearance is required for installation of Power Sub-station or electric lines. It is explicit, therefore, that the proposed project does not require any Forest Clearance as contemplated under Section 2 of the Forest (Conservation) Act, 1980.

31. True, the State enactment may give certain definitions of the word "Forest" for the purpose of implementation of the State Forest Law. The clinching question is whether the Forest

Clearance is required under Section 2 of the Forest (Conservation) Act, 1980. For the purpose of Forest (Conservation) Act, 1980, the forest is defined as per the Dictum in “T.N. Godaverman Thirumulpad Vs. Union of India & Ors.”(WP (C) No. 202/1995, the “Lafarge” case (I.A. No. 1868) and the case of “Okhla Bird Sanctuary” (2010), 13 SCALE 50. In “T.N. Godaverman Thirumulpad Vs. Union of India & Ors.” the Apex Court observed: -

“.....The word “forest: must be understood according to its dictionary meaning. This description cover all statutorily recognized forests, whether designated as reserved, protected or otherwise for the purpose of Section 2(i) of the Forest Conservation Act. The term “forest land”, occurring in Section 2, will not only include “forest” as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of the ownership. This is how it has to be understood for the purpose of Section 2 of the Act. The provisions enacted in the Forest conservation Act, 1980 for the conservation of forests and the matters connected therewith must apply clearly to all forests so understood irrespective of the ownership or classification thereof.”

Each State Government should constitute within one month an Expert Committee to:

(i) Identify areas which are “forests”, irrespective of whether they are so notified, recognized or classified under any law, and irrespective of the ownership of the land of such forest;

(ii) Identify areas which were earlier forests but stand degraded denuded or cleared; and

*(iii) identify areas covered by plantation trees belonging to the Government and those belonging to private persons.”*

---

32. The Apex Court further held (in RE: “Construction of Park at Noida” near Okhla Bird Sanctuary Vs. Anr.) that for a forest land it has to be Notified, deemed or declared as such. It is observed that any land where trees are grown could not be termed as forest. It has been further held that prior EC for such projects is not required under provisions of the Environment (Protection) Act, 1986. It would be beneficial to reproduce certain observations of the Apex Court in order to clarify the legal position:

*“.....In the present case, even though as per the Report of the Forest Survey of India, the area was having good forest / tree cover and the project area had more than 6000 trees, it does not fall in the category of forest: for the purpose of section 2 of the Forest (Conservation) Act and therefore does not require any approval under the Forest (Conservation) Act. The project area does not have naturally grown trees but planted trees. The area has neither been notified as forest nor recorded as forest in the government record. In the exercise carried out by the State of Uttar Pradesh, after detailed guidelines for identification of deemed forest were laid down, the project area was not identified to be deemed forest.*

*“.....In the above order the Court mainly said three things: one, the provisions of the FC Act must apply to all forests irrespective of the nature of ownership or classification of the forest: two, the word forest must be understood according to its dictionary meaning and three, the term forest land:, occurring in section 2, will not only include forest as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of the ownership. The order dated December 12, 1996 indeed gives a very wide definition of forest. But any definition howsoever wide relates to a context. There can hardly be a legal definition, in terms absolute, and totally independent of*



*the context. The context may or may not find any articulation in the judgment or the order but it is always there and it is discernible by a careful analysis of the facts and circumstances in which the definition was rendered....”*

*30. Almost all the orders and judgments of this Court defining forest and forest land for the purpose of the FC Act were rendered in the context of mining or illegal felling of trees for timber or illegal removal of other forest produce or the protection of National Parks and wild life sanctuaries. In the case in hand the context is completely different. Hence, the decisions relied upon by Mr. Bhushan can be applied only to an extent and not in absolute terms. To an extent Mr. Bhushan is right in contending that a man made forest may equally be a forest as a naturally grown one. He is also right in contending that non forest land may also, with the passage of time, change its character and become forest land. But this also cannot be a rule of universal application and must be examined in the overall facts of the case otherwise it would lead to highly anomalous conclusions. Like in this case, Mr. Bhushan argued that the two conditions in the guidelines adopted by the State Level Expert Committee, i.e., (i) trees mean naturally grown perennial trees and (ii) & the plantation done on public land or private land will not be identified as forest like area; were not consistent with the wide definition of forest given in the December 12, 1996 order of the Court and the project area should qualify as forest on the basis of the main parameter fixed by the committee. If the argument of Mr. bhushan is accepted and the criterion fixed by the State Level Expert Committee that in the plains a stretch of land with an area of 2 hectares or above, with the minimum density of 50 trees / hectare would be a deemed forest is applied mechanically and with no regard to the other factors a greater part of Lutyens Delhi would perhaps qualify as forest. This was obviously not the intent of the order dated December 12, 1996.*

*31. In light of the discussion made above, it must be held that the project site is not forest land and the construction of the project without the prior permission from the Central Government does not in any way contravene section 2 of the FC Act.”*

33. Faced with this difficulty, Learned Counsel for the Applicant submits that observation in the case of “Construction



of Park at Noida” near Okhla Bird Sanctuary are “*per-incuriam*”.

We find it difficult to accept such contention of the Learned Counsel. It transpires that the Apex Court duly considered purpose of Section 2(i) of the Forest (Conservation) Act, 1980. What appears to us is that the Learned Counsel may be having certain confusion in his mind due to a different type of definition of the word “forest” under the UP Forest Act. The Forest Clearance for use of the forest land as required under Section 2(i) of the Forest (Conservation) Act is altogether different legal aspect. The tract of land may be recorded as forest for the purpose of local law of the State but it may not require any FC under the Forest (Conservation) Act, if the activity of non-forestry purpose is covered by exemption as contemplated under the Forest (Conservation) Act, 1980. Considering the forgoing discussion, we deem it proper to reject the argument of the Learned Counsel appearing for the Applicant. We hold that permission under Section 2 of the Forest (Conservation) Act, 1980 was not necessary for installation of GIS Power Sub-station and it cannot and shall not cause any impediment in the execution of the said project. We also hold that the Project Proponent (R-4) is not proved to have committed breach of the UP Trees Protection Act, 1976. For, mere removal of small shrubs and plants from a part of the stretch of Green Belt will not tantamount to felling of trees for the purpose of said Act. In this view of the matter, we emphatically answer the Issue No. (1) as “No”.

34. This takes us to examine issue pertaining to alleged adverse impact on health of the residents of the Gaur Green City, particularly, that of Childhood Leukemia, on account of installation of GIS Power Sub-station. So far as this question is concerned, the Applicant relied upon various articles which have been published in the journals like “occupational environment med.” There are two kinds of electromagnetic radiations: (i) Ionizing and (ii) Non-Ionizing. The Ionizing radiations are administered under the supervision of radiologists for X-ray examination, or by Neuro Surgeons for removal of tumours. Non-Ionizing radiation is created as a result of electromagnetic field. It is also manifestly clear that ELF-EMF of high voltage power lines and sub-station may cause health hazard.

35. The Applicant says that guidelines of International Commission on Non-Ionizing Radiation Protection (ICNIRP) indicate that the Childhood Leukemia (C.L.) is more likely to be caused due to proximity of infants and children to the high voltage electric transmission line. The Applicant alleges that study report of Dr. Wertheimer and Dr. Leeper go to show that closer the distance of high voltage frequency electromagnetic field the risk of Childhood Leukemia is more. Reliance is further placed on an article published in Asian Pacific J. Cancer Prev, 11,423–427, 2010. The article is based upon the study said to have been carried out by Theriault and Chung Yi Li. So also, the Applicant invited our attention to the report of Dr. Ahlbom and others. That report shows that relative risk of

exposure was increased as EMF exceeds 0.1 micro tesla. The relevant portion of the study reports in substance is to the fact that there is increased risk for exposure to more in respect of electric field up to 0.3 micro tesla. The Applicant has filed copy of the article published in International Journal of Cancer 2012 (Annexure P-15) in order to highlight the health hazard which is likely to be caused on account of installation of the GIS Power Sub-station.

36. Before we go into the depth of the reported scientific studies, it is important to mention here that the Report of World Health Organization (WHO) has been published in 2007 and titled as “Environmental Health Criteria, 238”. The guidelines of WHO specifically show that extremely low frequency electromagnetic fields are not hazardous to human health. This document, after detailed analysis of various sources, shows that the earth surface is encompassed with electrical magnetic field and atmosphere is the charge separator which occurs between the earth and ionospheres which acts as a perfect conductor separated by air of negligence conductivity whereas the manmade fields comprise of overhead power lines, domestic wiring, use of electric appliances, underground cables and sub-station. In the context of sub-station, the WHO document states as follows:

*“2.2.2.2.5 Distribution substations and transformers, Overhead lines and underground cables at whatever voltage usually terminate at substations. All substations usually contain apparatus to perform similar functions: transforming, switch, metering and monitoring. A Substations range from large*

complexes several hundred meters in extent at one end of the scale to simple pole-mounted transformers at the other end of the scale. One feature they all have in common is that members of the general public are excluded from most of the functional regions of the substation, either by a perimeter fence or enclosure (for ground-based substations) or by the height of the pole (for pole-mounted substations). Although substations vary in their complexity and size, the principles which determine the magnetic fields they produce are common. Firstly, in all substations, there are a number of components which produce a negligible magnetic field outside the confines of the substation. These include the transformers, virtually all switches and circuit breakers, and virtually all metering and monitoring equipment.

Secondly, in many cases the largest fields in public accessible regions are produced by the overhead lines and underground cables running in and out of the substation. Thirdly, all substations contain a system of conductors (often referred to as ‘busbars’) which connect the various components within it, and these busbars usually constitute the main source of magnetic field within the substation producing appreciable field outside. The size of the currents and the separation of the busbars are both larger and higher-voltage substations than at lower-voltage ones. In both cases, the magnetic field falls very rapidly with distance from the substation. Typical values in the United Kingdom for substations of 275 and 400 kV at the perimeter fence is 10  $\mu\text{T}$ , and 1.6  $\mu\text{T}$  for an 11 kV substation. Renew, Male & Maddock found the mean field at the substation boundary, measured at about 0.5 m above ground level, to be 1.6  $\mu\text{T}$  (range: 0.3-10.4  $\mu\text{T}$ ) (Renew, Male & Maddock, 1990 ). They also found (for the 19 substations where the background field was low enough to enable this measurement to be made) the mean distance at which the field at the substation boundary was halved to be 1.4 m ( range: 0.6-2.0 m). NRPB has performed similar measurements on 27 substations in the UK with similar findings (Maslanyj, 1996). The mean field at the substation boundary was 1.1  $\mu\text{T}$ , with a field of 0.2  $\mu\text{T}$  at between 0-1.5 m from the boundary and a field of 0.05  $\mu\text{T}$  at between 1-5 m.”

37. We may point out that the GIS Power Substation is being established by UPPCL having its head office at Lucknow. The main objective of said Corporation is to run and manage existing technical transmission lines and high voltage Substation



and / or to lay new network of transmission lines and high voltage substation through cables, wire connected with electrical transmission. The record shows that various substations have been installed by the UPPCL in Delhi. One of such Power Substation is installed in the proximity of AIIMS, another is installed near the busy market place called Lajpat Nagar, so on and so forth. Nobody has ever ventilated any grievance on account of installation of such Power Substation at those places in Delhi. We may take note of the fact that electricity is transmitted at high voltage of 110 KV or above in order to reduce the loss of energy, particularly, in the course of long distance transmission. The electricity power is ordinarily transmitted through overhead power lines. It is well known fact that underground power transmission involves significantly higher costs, greater of operational limitations and may not be viable at all the places. The transmission lines when interconnected with each other, forms transmission network. These networks are typically referred to as "Power Grid" or just "Grid". The networks are managed at national level by Power Grid Corporation of India Limited. Needless to say, installation of GIS Power Substation is part of the inter-connectivity with the "Power Grid".

38. At this juncture, it may be appropriate to point out that, the Applicant examined one expert witness, namely, Prof. Girish Kumar. He is a Professor attached to IIT Bombay, Department of Electrical Engineering. His version purports to show that proximity of Power Substation will rise



electromagnetic field. His version further reveals that EMF may have adverse impact on health of infants, children and old aged persons living in the proximity of such Power Substation.

39. Cross-examination of Prof. Girish Kumar, however, reveals that he has no experience in the relevant subject. His cross-examination indicates that he is not aware of technical differences between GIS and AIS Power Substation. He admits that the ICNIRP guidelines cannot be relied upon inasmuch as ICNIRP is an NGO supported by Power Companies. He further admitted that although guidelines of WHO show possibility of C.L. due to exposure to the electromagnetic field as low as 0.4 micro tesla. Yet it has not been mentioned with reference to distance from the source of EMF and duration of the exposure. He further stated that WHO and ICNIRP cannot be compared with each other because there is vast difference between their guidelines and credibility of the same. His version reveals that most of the part narrated by him is on basis of literature and not upon any actual study conducted by him in relation to Power Substations located in India.

40. He appears to be an interested witness. He admits, in clear terms, that he is owner of a Company called “Wilcon” and that his daughter is owner of another similar Company called “NESA Radiation Solutions Private Limited”. The full form of NESA is “Non-Ionizing Electronic Shielding”. Thus, both the above mentioned Companies deal with radiation solutions. These Companies are manufacturers of amplifiers, Antennas,

power dividers, filters, etc. The information available on website of the said companies go to show that all the five directors of the said companies are family members of Prof. Girish Kumar. Needless to say, he has got commercial interest in the transactions concerned with sale of the electronic items as mentioned above. His cross-examination shows that he has no experience of working with GIS, nor has conducted any study in respect of health related issues involved on account of installation of the GIS Power Substation. We also find that the answers given by him on the subject are rather vague.

41. Under the circumstances, we find it difficult to place implicit reliance on his version. There appears no Indian standards set out or particular guidelines approved for Non-Ionizing radiation. The most reputed United Nation's Organization (UNO) is the World Health Organization (WHO). Therefore, the guidelines issued by the WHO are more reliable as compared to other guidelines. The guidelines of WHO do not show that the electromagnetic field that would be created by installation of the Power Substation in question is likely to cause any significant health hazard to the residents of Gaur Green City. One cannot be oblivious of the fact that the residential premises of the members of the Applicant are at a distance of more than 35/40 meters from the GIS Power Substation. So also, it is amply clear that the GIS Power Substation has got advantages over the conventional AIS (Air Insulated Substation). In the case of AIS, the insulation between the live parts and

ground is provided by air-gap/vacuum between them. This Air-gap with air at atmosphere pressure as insulating medium has low insulating capacity. Thus, more air-gap is required for high voltage transmission lines. However, in GIS technology, the live parts are enclosed in a chamber filled with sulphur hexafluoride (SF<sub>6</sub>) gas, which has much superior insulated capacity. Obviously, that reduces the space requirement to much extent. Moreover, the unnecessary cable being earthed is safer for human conduct during live condition. Looked from scientific angle, electromagnetic fields are insignificant as the switchgear is duly enclosed in an earthed metallic chamber which eliminates impact of electric magnetic field. This material information can be gathered from WHO document on Health Criteria 238. Being a good electrical conductor and located close to the current carrying elements, the enclosure becomes a carrier of induced current which, flows in reverse direction to the load current in GIS. The Electromagnetic Field (EMF) produced by this induced current of enclosure is almost in opposite direction to the EMF produced by the current carrying elements of GIS. With the result, they effectively cancel each other to a considerable extent. If GIS is housed in a building, it further reduces the intensity of EMF.

42. Having regard to all the technical aspects of the matter, particularly, advantage of GIS over AIS, we are of the opinion that the apprehension of the Applicant that the installation of the said Substation will be hazardous to health of

the residents of the Gaur Green City is without any substance. Hence, the Issue No. (2) is answered as “Negative”.

43. One of the limbs of the argument advanced by the Learned Counsel for the Applicant is that the other sites are available for installation of the GIS Power Substation viz. front portion of Sai Mandir in Abhaykhand on NH-24. An open place between Shipra Mall and NH-24 and third site at Chijarsi Village were not considered by the UPPCL. This argument is unacceptable. First, the choice of place is not domain of the Applicant. Secondly, a committee was appointed to see the suggested alternative sites. The Committee report shows that neither of the alternative site is suitable. It is also argued that the Applicant was not heard before approval of the part of Green Belt for the purpose of installation of the GIS Power Substation. The Learned Counsel for the Applicant could not pinpoint any legal provision which mandates opportunity of hearing to the residents of the residential colony situated at a distance more than 30 meters from the project in question. There is no substance in the allegation that action of the UP Electricity Regulatory Commission is actuated by malafides. In our opinion, the project does not require any grant of EC by following the Regulation 7(1) of the MoEF Notification dated 14.09.2006, it was not necessary, therefore, to go through the exercise of screening, scoping, public hearing and appraisal. In our opinion, the project in question is being sought to be executed

after due permission of the Electricity Regulatory Authority and as such answer to the Issue No. (3) is recorded in the “Negative”.

44. Much emphasis was laid down on violations of the Municipal laws and changes in the Master Plan, 2021 by the Project Proponent. The Learned Counsel for the Applicant placed on record copy of the UP Urban Planning and Development Act, 1976. He argued that permission ought not to have been granted for installation of the GIS Power Substation because it falls within “No-go” area because it is covered by Entry No. 3.9 of the schedule enclosed with the Master Plan. The contention of the Counsel for the Respondents is that the project is covered Entry No. 6.2 of the schedule. We are of the considered opinion that the questions pertaining to violations of the Municipal Law and alleged changes in the Master Plan, 2021 fall outside jurisdiction of the NGT. This Tribunal is concerned only with the environmental issues. The opening words of Section 14 of the National Green Tribunal Act, 2010 indicate intention of the Legislature. The NGT Act, in our opinion, requires the Tribunal to settle disputes in cases where “substantial question” relating to the environment is involved. Needless to say, any finding recorded by this Tribunal on the question of violation of the Municipal Law and alleged illegal changes in the Master Plan, 2021 is likely to prejudice the opinion of other competent forum. In this view of the matter, our answer on Issue No. (4) is in the “Negative”.

45. The need to have electricity connection for residents is



more important as compared to illusory apprehension projected by the Applicant (RWA). In our considered view, installation of the GIS Power Substation on the small part of the Green Belt is in keeping with principle of sustainable development. There cannot be duality of opinion that any development should be compatible with the Environment. Still, however, the Applicant must prove real possibility of threat to the environment or dangerous impact of such development on human beings. We are of the opinion that the Applicant failed to prove either. Though the project is not even a “scare-crow” yet it is being painted by the Applicant as a ‘goblin’ and, therefore, we are inclined to dismiss the Application.

46. From the discussion made above and findings recorded on the relevant issues, it goes without saying that the application is liable to be dismissed. However, we deem it proper to direct the Project Proponent to take adequate steps for protection of the inhabitants of the residential colony. We accordingly dismiss the Application with following directions to the Respondent No. 4 (Project Proponent):-

i). The Project Proponent shall ensure that the GIS Power Substation is duly enclosed by construction of a brick walls which shall be also covered by metal sheet of a reasonable thickness, which will not be easily likely to be cut down by ordinary methods.

ii). The Project Proponent shall not proceed with the work

without putting up temporary surrounding wall facing the Gaur Green City as well as facing the NH-24.

iii). The Project Proponent shall undertake work of landscaping, plantation, afforestation and beautification of the open spaces available beyond the GIS Power Substation and the boundary wall of the Gaur Green City.

iv). The Project Proponent shall simultaneously commence landscaping and beautification work as per plan of Horticulture Department and shall not make the proposed Power Substation operational without completion of such work.

v). The Project Proponent shall place warning signs around the enclosed GIS Power Substation to give proper information to the passersby.

vi). The Project Proponent shall give an undertaking in case of widening of the road suitable alternative land will be acquired for shifting of the GIS Power Substation or that required expenditure for construction of over-bridge, as may be directed by the Highway Authority, will be incurred by it. The project proponent shall seek permission of the competent Highway Authority prior to making the GIS Power Sub-Station functional.

vii). The above conditions are in addition to the conditions imposed on the Project Proponent under the document of lease.

47. The Application is accordingly disposed of as dismissed with no order as to costs and with a rider that

aforesaid conditions shall be complied with by the Project Proponent.

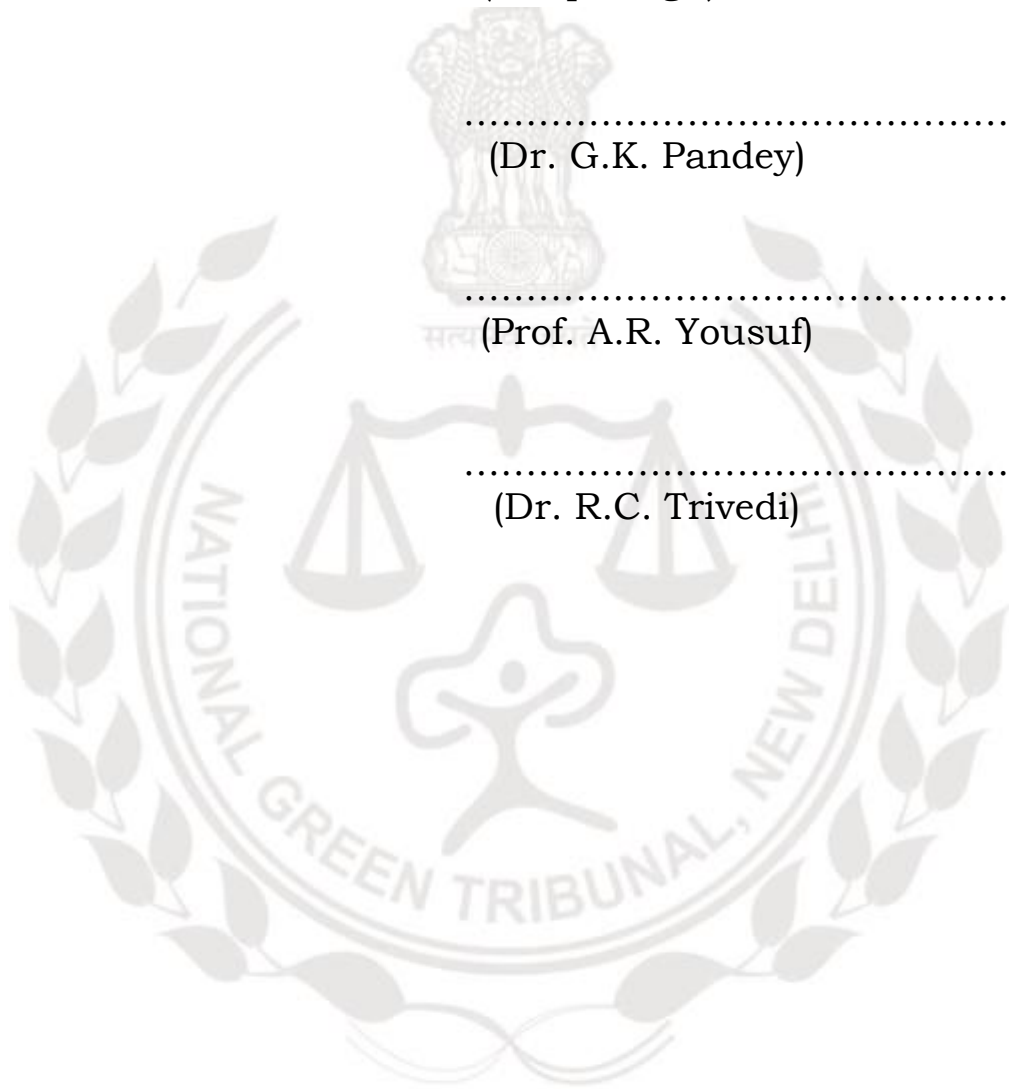
....., JM  
(V. R. Kingaonkar)

....., JM  
(Dalip Singh)

....., EM  
(Dr. G.K. Pandey)

....., EM  
(Prof. A.R. Yousuf)

....., EM  
(Dr. R.C. Trivedi)



NGT



**NGT**