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Complexities in Preserving the Cultural Heritage of Agra: An Appraisal

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ABSTRACT

The city of Agra, renowned worldwide as the city of the Taj, is the abode of many of India's most well-known architectural and historical marvels. With the advent of modern industry and urban expansion, these remnants of India's rich heritage, are getting severely impacted. The rise of environmentalist awareness in India, as a reaction to the adverse effects of these polluting industries and increasing encroachment, also came to the rescue of India's monuments, leading to the landmark establishment of the Taj Trapezium zone (TTZ). This paper attempts to provide a holistic picture of the measures taken hitherto with the establishment of the TTZ, its objectives, and the successes or misses of the intervening Government initiatives. The paper also aims to offer suggestions for further initiatives that need to be undertaken, in order to protect and preserve these monuments from the negative impact of pollution and encroachment.

Keywords- Industry, Apex Court, TTZ, history, pollution, Taj Garden.

I. INTRODUCTION

The city of Agra occupies an esteemed position in the vast arena of India's cultural heritage, owing to the presence of several protected monuments of national importance in the district. All the monuments are quite significant, as these hail from a notable and conspicuous period of Indian history and culture. These masterpieces of our heritage highlight the important and central role of the city of Agra in the erstwhile regional and national history as living witnesses of the city's past. Owing to the rich cultural heritage of Agra, with the presence of the three world heritage monuments, the Taj Mahal, Agra Fort and Fatehpur Sikri, and the tomb of Akbar, I'timad-ud -Daulah, Chini ka Rauza, the Mehtab Bagh along with several other major and minor monuments, the task of protection and preservation of the heritage sites assumes special significance. An important aspect is protection and preservation of the garden landscape of the monuments which imparts beauty and grandeur to the sites and act as centres of ecological wealth abounding in rich horticultural varieties. The present times pose double pronged threat firstly, from the rapidly rising levels of pollution from an ever-increasing number of vehicles, industries and use of fossil fuels in rural and semi urban households. This is coupled with the increasing encroachment in close vicinity of the monuments resulting in obliteration of their natural landscapes. The poisonous gases let out in the atmosphere have continuously caused considerable damage to the rich surface of monuments, particularly that of marble becoming a rising cause of concern for conservators and environmentalists.

II. TASK OF PRESERVATION OF CULTURAL HERITAGE: CHALLENGES AND OBJECTIVES

The complexity of the task of cleaning the affected surface is greatly enhanced due to the use of fine-grained marble in the building of Agra monuments. It gets more complicated in the case of the Taj Mahal, owing to the all-marble surface and delicate plan of the edifice. Therefore, much care has to be exercised in the cleaning process, which is conventional and unmechanized, as well as spread over a long duration. The chief concern of the conservators is to prevent miniscule damage to the rich structural surface and restore it to its original glaze. They resort to the conventional method of applying the 'clay pack' with an improved technique using purified Bentonite, with suitable additives, as the time-tested approved method of treatment. It works by absorption of the dust and accretionary deposits (constituents of the Suspended Particulate Matter- SPM), acidic droppings of birds and greasy residue from visitors' touch, by Bentonite, restoring the original glaze of the surface. This is an approved technique, however, it is time consuming, requiring long closures and difficult to be done frequently owing to the nature of the task. The task of protection and restoration of monuments landscape is equally complex as it involves acting against the increasing cases of encroachment and taking measures to prevent its occurrence. Hence it became evident that of more importance was ensuring the prevention of damage to the monuments and their landscape which necessitated a comprehensive approach to the whole matter. The issue was addressed at the highest level with the intervention of the Hon'ble Supreme Court (SC) and involvement of the Government of India (GOI) and its agencies (the ASI, Ministry of Environment and Forest (MoEF), the Ministry of Culture and Tourism (MoCT) resulting in the demarcation of a specific area as the Taj Trapezium Zone (TTZ).

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III. SETTING UP OF TTZ: SCOPE AND AREA

The background and objectives of the TTZ was largely linked to resolving issues of industrial pollution its scope gradually widened to address issues of the depleting green cover and checking encroachment at the heritage sites. The commissioning of the Mathura Oil Refinery (MR) in 1982, at a distance of 45 kilometres from Agra, raised concerns from environmentalists, which became a key factor for defining the region of TTZ. At the same time, the Central Pollution Control Board (CPCB) was constituted to address the threat to atmospheric pollution from industries and vehicles upon which the guidelines for TTZ were framed. This area was designated as eco-sensitive zone of highest category termed as Air Pollution Protection Area (APPA) in the CPCB Report, prioritising acute surveillance of existing industry of High Polluting Nature (HPN) prohibiting their expansion and setting up of new units. The chief objective was to preserve the ecological wealth in this zone centred around sensitive receptors; the Taj Mahal, Ghana Bird sanctuary (Bharatpur) and several other protected monuments. The industrial zone spanning a vast expanse was brought under purview of the APPA based over the prevalence of wind speed and direction acting as carrier of pollution laden industrial smoke. The name of the Taj was affixed to the zone as protection of the Taj Mahal as main receptor was central to the entire exercise. The demarcated area in the zone roughly resembles a trapezoidal form and hence coined Taj Trapezium encompassing a vast area of 10,400 square kilometres. It envelops fully the district of Agra, with the inclusion of parts of the districts of Mathura, Firozabad, Hathras and Etah in Uttar Pradesh (UP) and Bharatpur in Rajasthan. The significance of this demarcation amounts to the inclusion of three world heritage sites and a large number of protected monuments and eco-sensitive areas.

IV. IMPENDING ISSUES AND GOVERNMENT POLICY IN THE REGION: RECOMMENDATIONS AND IMPLEMENTATION

The presence of the Taj Mahal, one of the wonders of the world after which the zone is named, as the key monument in the zone itself, accords international significance to this concept of the trapezoidal figure. The main issues to be addressed involved the regulation of the rates of mechanical activity in the region of TTZ and expansion of the green cover by demarcating new plantation areas to reduce and control the levels of pollution. It was imperative at the same time, to prepare and introduce other eco-friendly schemes in the region which could facilitate the conservation of the Taj and the landscape around monuments. The main objective of Government policies framed for the TTZ, hence is to maintain the ecological balance in this ecologically sensitive area in accordance with the directives of the Apex Court.

The whole matter of conservation of cultural heritage with main emphasis on the Taj Mahal was raised initially in the Public Interest Litigation (1984) in the Hon'ble Supreme Court, titled M. C. Mehta vs. Union of India and Others. The issue of threat of pollution from the new Refinery (MR) in the area was envisaged in this PIL. Investigation of this matter was entrusted by the GOI to reputed agencies for assessing the issue of pollution from MR and making suitable recommendations. The proposals based on findings to such effect were put forward in the reports of the National Environmental Engineering Research Institute (NEERI – 1993), the Varadrajan committee (1974, 1994), and Tripathi committee (1995), the latter constituted by the state government of UP for the purpose. In their reports, the Varadrajan committee and NEERI shifted the focus towards identification of other sources of pollution in the area other than that emanating from the MR. These sources were successively reported as the two thermal power plants, at Power House near Agra Fort and near the tomb of I'timad-ud-Daulah; use of steam locomotives in railway shunting yard of Agra Fort railway station and industrial units mostly foundries, located north west of the Taj Mahal. The power houses and railway shunting yard were subsequently closed. The case of the polluting foundries in vicinity of the Taj was put to screening, and most units which did not switch over to use of safe fuels were either shut down or shifted to safe distance as recommended by NEERI and the Varadrajan committee, following the directives of the SC.

The state government hitherto adopted a soft approach toward the interests of local industry from point of economic development and employment in the district. It was felt necessary to draft a two-pronged strategy aimed at retaining the industrial units switching to gas-based fuel and initiating developmental schemes aimed at betterment of existing surroundings around heritage sites. The government hence, in a way zeroed on preservation and maintenance of garden landscape of the monuments. The Tripathi committee, specifically constituted to look into issue of pollution from industries, brought vehicular traffic movement within and around the city under its purview as another major source of pollution. The issues raised variously in this report comprised shifting of industries; removal of encroachments; increasing the green cover in a 20 km radius from the Taj Mahal and improvement in roads to ease traffic congestion at busy spots; diversion of heavy traffic around the city and setting up of local railway network. The use of clean gas-based fuels and battery-operated vehicles was recommended for transport in close vicinity of the Taj Mahal. The task of tree plantation around the Taj was entrusted to a special cell in the MoEF under orders of the SC passed in 1994. The

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responsibility of implementation of the work of this cell was entrusted to the Mahajan committee with Shri Krishna Mahajan as Advocate Commissioner by the directives of the Apex Court in 1996. In simpler terms a comprehensive strategy was envisaged to ensure overall protection and preservation of the cultural heritage of the city as a whole.

V. THE TAJ GARDEN: LANDSCAPE AND ECOLOGY

It is imperative here to give a brief description of gardens of Taj Mahal in order to emphasise the significance of these gardens for the beauty, grandeur as well as longevity of the historical monuments. It is important to note that these gardens formed a basic constituent of the original scheme of construction of heritage buildings in a well planned symmetrical lay out planned by the builders. The maintenance of the garden complexes around monuments is undertaken on a specific pattern and requirement with the underlying objective of enhancing the landscape around monuments rather than to create recreational gardens/parks for public use.

The gardens were laid on the Timurid concept of *Char Bagh* (four quartered) notable for their spiritual and aesthetic value in the Mughal scheme of construction of historical edifices. The Taj Garden is divided into 16 plots and is spread in a 16-acre area with 11 acres of this covered with thick vegetation. The natural ornamental wealth includes 2237 trees, 54300 shrubs/herbs, 32900 annual herbs etc. indicative of the high density of the green cover in the inner complex of the monument. The original builders i.e., the Mughals, chose indigenous as well as other plants (ornamental, fruits, flowers and herbs) in their gardens with valuable and rare trees added during the British period. In the present times, Horticulture department of the Archaeological Survey of India (ASI) has been making sincere efforts to preserve and perpetuate the Mughal character of the garden complex by introducing original period flora and its related species in replacement of decayed and dead plants. For instance, sandalwood trees were brought from Mysore and introduced by the Horticulture branch for propagation.

The ASI maintains separate numerical registers of plants and trees of the Taj Garden for effective maintenance of the historical green cover within the Taj complex in pursuance of the directives of the Apex Court. In the process, effective fungicide and insecticide treatment was imparted to specimens referred as diseased in the report of the Advocate Commissioner. The efforts of Horticultural branch of the ASI bore fruition with a substantial increase in the numerical strength of trees and shrubs by over 15000 in the year 2000. The ASI also maintains a specific nursery in continuation of outer wall of the Taj Mahal for purpose of breeding and propagation of plants and shrubs of various species. These are supplied to the Taj Garden, as well as to other gardens viz., Shah Jahan Garden and rosary around the Taj, Sardar Patel Park, Taj Road etc. Individual nurseries are maintained at the other monument garden complexes, e.g., at the Itimad- ud-Daulah, Akbar's tomb and other sites.

The Taj Garden and other garden complexes thus hold a great value as an ecological support system as also envisaged in the scheme of green belt project. Hence the proper maintenance of these gardens with increase in plant species through multiplication and new plantations is of utmost priority for horticulture department of the ASI and the environmentalists. The monitoring teams functioning under the orders of the Apex Court are primarily occupied with this enterprise.

VI. TOUGH ROAD AHEAD

The formation of the TTZ has led to effective channelising of government efforts, and its significance and authority are of extreme significance in imposing regulations and checks for sustainable development in this city of world heritage importance. Despite the strict enforcement of government norms there are several grey areas which require renewed thrust and initiative for resolution of issues. A very serious cause of concern is the ever-present threat of encroachment around several lesser-known monuments which are essential constituents of the city's heritage as a whole. This has led to obliteration of landscape around these heritage structures often restricting their unhindered accessibility. Another challenge exists in maintaining optimum water levels in the Yamuna River to restore the riverfront character of the Taj Mahal, the tomb of I'timad-ud-Daulah and other monuments located on the banks of the river. The Yamuna Action Plan project is a step in this direction though yet to yield a positive outcome.

VII. CONCLUSION

It is evident that the matter of heritage conservation in Agra and its surroundings, with the Taj Mahal as the focal point, became an issue of national importance with the concern and involvement of the environmentalists in the 1980s. It brought about intervention of the Apex court of the country and the setting up of the TTZ that facilitated regular monitoring of the impending threat of pollution from traditional and modern sources. Owing to conflict of interest between modern pace of development vis a vis conservation of heritage the whole issue of preservation assumes complex proportions. A balanced approach needs to be adopted, necessitating monitoring exercised at the highest level under supervision of the Hon'ble Supreme Court, to preserve and protect the interests on both sides.

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