



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 7 Issue: V Month of publication: May 2019

DOI: <https://doi.org/10.22214/ijraset.2019.5656>

www.ijraset.com

Call: ☎ 08813907089

E-mail ID: ijraset@gmail.com

Planning Proposals of Urban Recreational Facilities for Nashik City (Maharashtra) 2019

Akshay Sonawane¹, Abhishek Singh²

^{1,2}Department of Civil Engineering, Sandip University, Nashik

Abstract— *There has always been a trend of beautifying the modern cities by construction of various facilities like urban parks, playgrounds, amusement parks etc. recently. Such areas perform an important role in social and to some extent the economic well being of the city and urban residential complexes. Many of the new constructions of residential buildings proposed nowadays focus a considerable amount of time and investment towards inclusion of parks and playgrounds within the residential campus being constructed. This is the key indication that how much the common masses are attracted to this kind of areas and their importance in the urban environment.*

Keywords— *Recreation, open spaces, green spaces, urban development, parks, playgrounds*

I. INTRODUCTION

The term 'Urban Recreational Area' comes from the fact that this kind of open spaces designed for 'clean air' environments in the ever-growing, over-crowded and over-populated urban areas provide a lot of environmental, psychological, social and if designed for the purpose the economical needs of the society. Basically, recreational activities mean the activities that help an individual member of the society to focus on their personal lives apart from the professional stress that is constantly bombarded on them throughout the urban life. This kind of areas also helps individuals to nurture their hobbies, exercise and spend free time with friends and family in their free time. If looked deeply, the term focuses on well being of the individuals mentally as well as physically.

This research paper along with numerous other studies conducted across the world explains in brief the importance, methodology of operation and effects of the Urban Recreational Areas or Spaces. This paper also tends to set or clear the guidelines to be considered in proposing new such constructions. Nashik city of Maharashtra, India is selected for the case study and proposal purpose.

A. Types of Recreation Facilities

There are two types of the recreational facilities on the basis of activities.

- 1) **Indoor Recreation Facilities:** Indoor recreational spaces refer to the areas where the recreational activities take place in a closed environment or a structure specially designed for the purpose. Structures like auditoriums, badminton courts, planetariums, domed swimming pools and to some extent some basketball courts, etc come under this category.
- 2) **Outdoor Recreation Facilities:** According to the name this kind of recreational facilities focus on providing open air recreational activities. Such areas are generally constructed over a wide area. Jogging tracks, cricket ground, football grounds, etc. come under this category.

II. PROBLEM DEFINITION

In developing and comparatively smaller cities like Nashik, not a lot of focus is given on the development of the recreational facilities. This kind of facilities are very much required with the increasing population of the city where there may not be enough open spaces remaining to developing these areas in future.

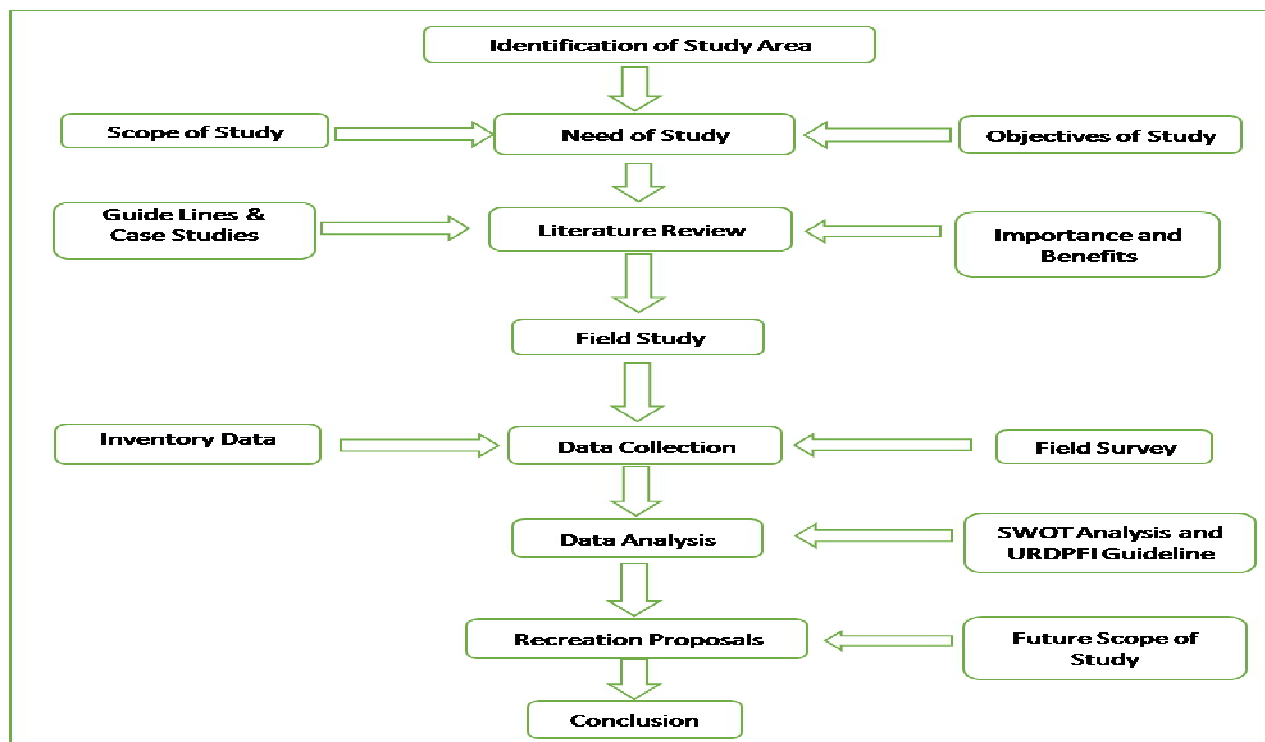
III. OBJECTIVE OF THE STUDY

- A. To survey the current conditions of the recreational areas in the Nashik city.
- B. To gather information about the requirements or suggestions of the individuals of the city.
- C. To propose new possibilities for development of recreational areas.
- D. To propose the plans for development of few such facilities.

IV. NEED OF THE STUDY

- A. With ever growing urbanisation the interaction of individuals with open spaces or scenic areas is reducing with time. Living in over populated and over polluted urban areas decays the quality of life.
- B. The growing land use for residential areas may not allow expansion or construction of new open areas.
- C. It is important to know the expectations of the public for which the constructions are to be done.

V. METHODOLOGY



VI. STUDY AREA

Nashik is a major district in Maharashtra state of India. It is the Divisional Headquarter for 5 districts of the division. Nashik railway station falls on the Manmad – Mumbai route of the Central Railways division of Indian Railway. Nashik city administration is Municipal Corporation of Nashik (MNC). The evolution of MNC can be summarised as listed below.

Municipal Council – 1864

City Municipal Council – 1874

Formation of Deolali Municipal Council 1952

Class “A” Municipal Council – According to amendments in Maharashtra Municipalities Act of 1965

Formation of Satpur Township Municipal Council – March 1972 (Following the foundation of Satpur – MIDC)

Class “B” Municipal Council

Class “C” Municipal Council

Municipal Corporation - 1982

Nashik is important city in Maharashtra State with respect to Mythology, culture as well as history. Situated on the banks of Godavari River which itself is important mythologically, Nashik has mention in the Ramayana epic as the place where Lord Rama had arrived when he was exiled from his birthplace Ayodhya.

Historically Nashik was an important military role in the defeat of the Mughal emperor Aurangzeb. Nashik was successfully held against vast armies of the Mughal empire for 8 long years by Maratha King Chatrapati Sambhaji.

Nashik is a center of pilgrimage as the Mahakumbh festival of Hindu religion every 12 years. Along with this, Trimbakeshwar, Saptshrungi Gadh of Vani and Shirdi attract a huge mass of pilgrims from across India throughout the year.

Along with this, presence of 3 MIDC areas in Nashik – Satpur MIDC, Ambad MIDC and Sinner MIDC make it an industrial hub in the division. Nashik is termed as a key point in the “Progress Triangle” in development of Maharashtra state along with Mumbai and Pune.

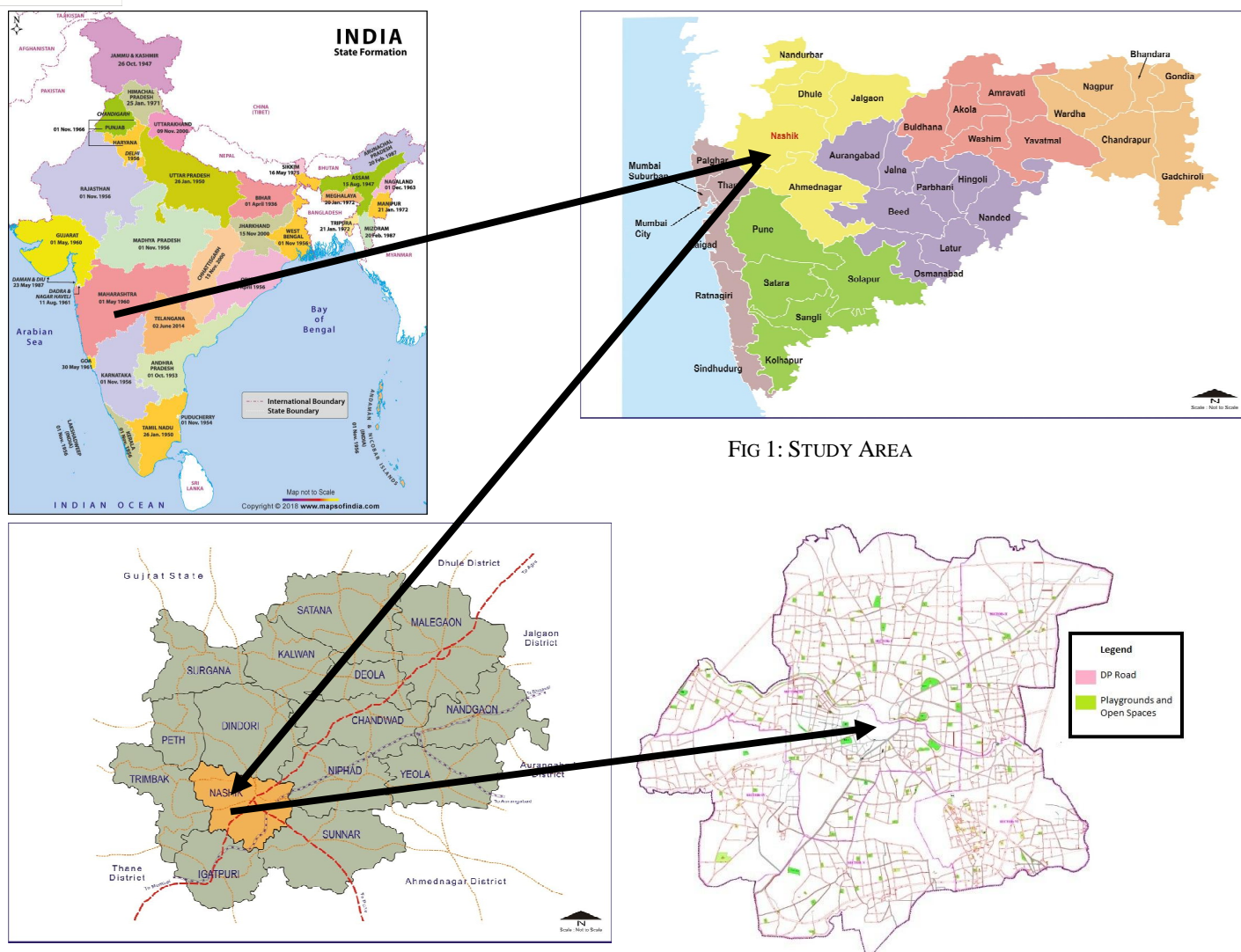


FIG 1: STUDY AREA

VII. DATA COLLECTION AND ANALYSIS

The data collected for this study was collected through two sources. 1) The drafts prepared by the Municipal Corporation of Nashik and 2) On the ground survey of 200 people in Nashik city. The data from the later have not been included in this paper.

A. Existing Land use

The following table interprets the existing land use patterns of Nashik city.

Sr. No.	Land Use	Area in Hectares	% of total Developed Area	% to the Total Area
1	Residential	5875.36	52.18	21.97
2	Commercial	219.73	1.96	0.82
3	Industrial	1569.98	14.02	5.87
4	Public and Semi-Public	827.41	7.32	3.09
5	Public Utility	188.46	1.7	0.63
6	Transportation	1573.2	14.05	5.88
7	Garden, Play Ground and Recreation	126.83	1.13	0.47
8	Military	943.7	8.43	3.33
9	C.I.D.C.O	352	3.56	1.49
10	Total Developed Area	11702.67	100	43.75
11	Agricultural	8961.49		33.5
12	Water Bodies	935.13		3.97
13	Vacant Land	4559.33		17.05
14	Total Un-developed Area	15044.33		56.25
	Total Area	26747.75		100

Developed Area %

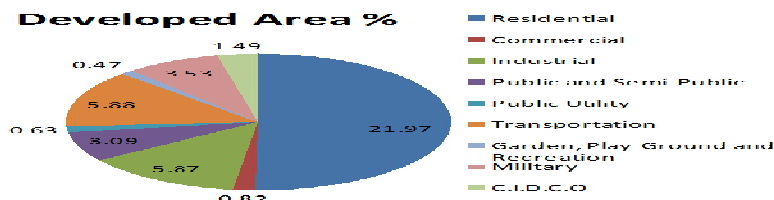


Fig. 1 Study area current development analysis

As seen in the above analysis it is evident that the amount of land that is used for recreational areas is not quite sufficient. Hence it is necessary to turn the attention of city planners towards this issue.

B. Demographic Study

Year	Population	Decennial Variation	% Variation
1991	733000		
2001	1077236	344236	46.96
2011	1486053	408817	37.95

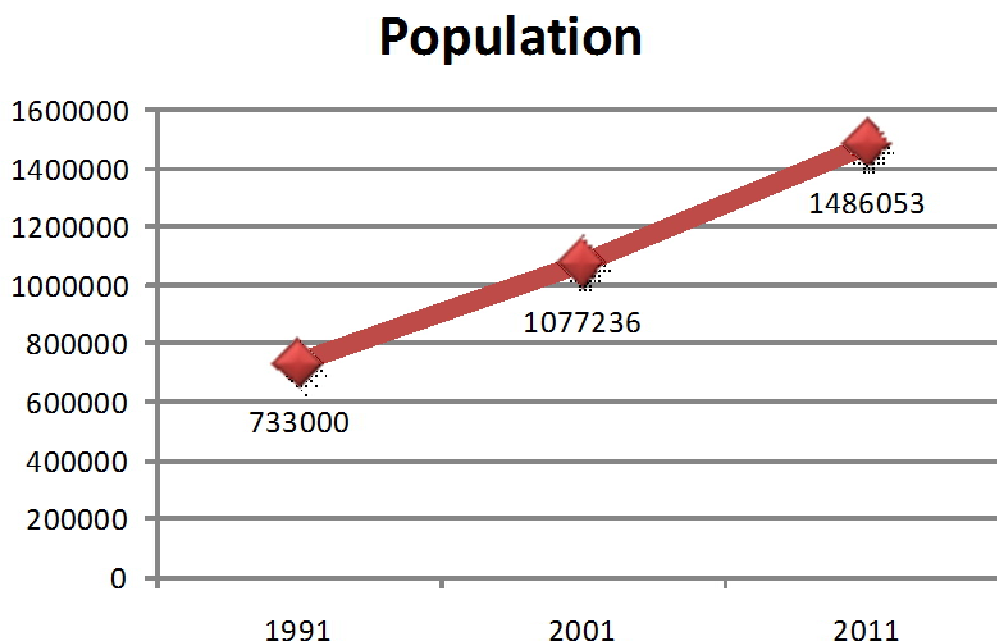


Fig. 3 Study area current development analysis

Above Fig.3 demonstrates the population of the city of Nashik. This data is used to make projections of future growth of population which in turns is important in proposal state as to accommodate the needs of the upcoming times.

TABLE I
FONT SIZES FOR PAPERS

Year	Arithmetical Increase Method	Geometrical Increase Method	Incremental Increase Method	Average of Three Methods
2011	1486053	1486053	1486053	1486053
2021	1724553	2056696	1989850	1923700
2031	1963054	2846468	2254233	2354584

VIII. PROPOSALS

In all 4 different proposals were made in different locations of Nashik city. All these areas are well connected by major roads in the city and are targeted in the areas that are rapidly developing with respect to the residential purposes. The following map describes widely where the 4 locations were selected.

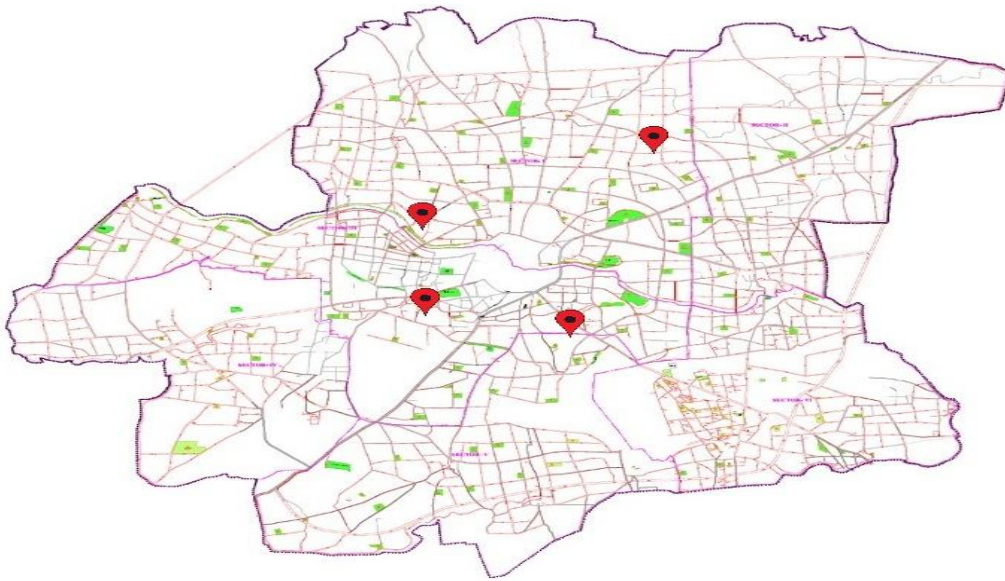


Fig. 4 Locations Selected for Development of recreational areas

A. Tarwala Nagar (22.46 Acre)



Fig 5. Location selected at Tarwala Nagar (Satellite view)

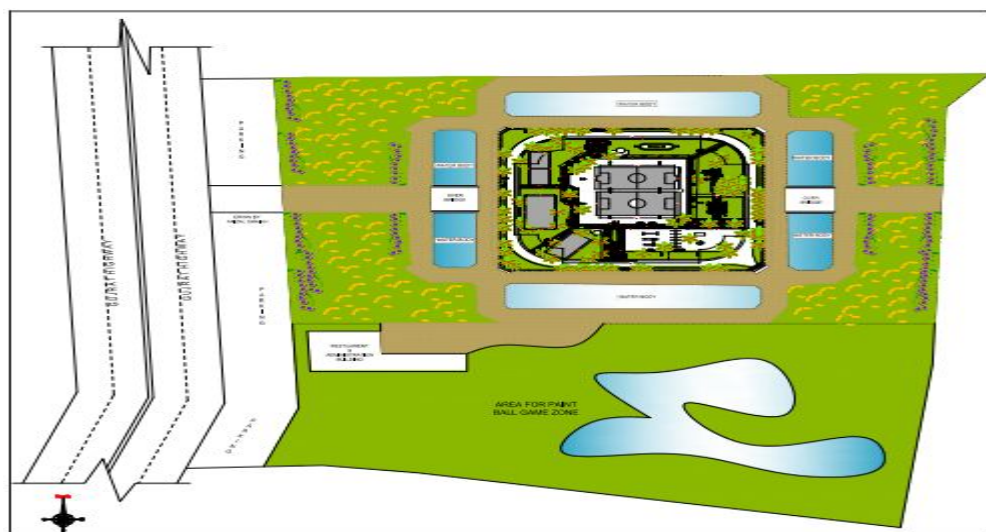


Fig. 6 Areal Development at Tarwala Nagar as per proposal

B. Wadala Road (4.81 Acre)



Fig 7. Location selected at Wadala Road (Satellite view)



Fig. 8 Areal Development at Wadala as per proposal

C. Parijat Nagar (9.69 Acre)



Fig 9. Location selected at Parijat Nagar (Satellite view)

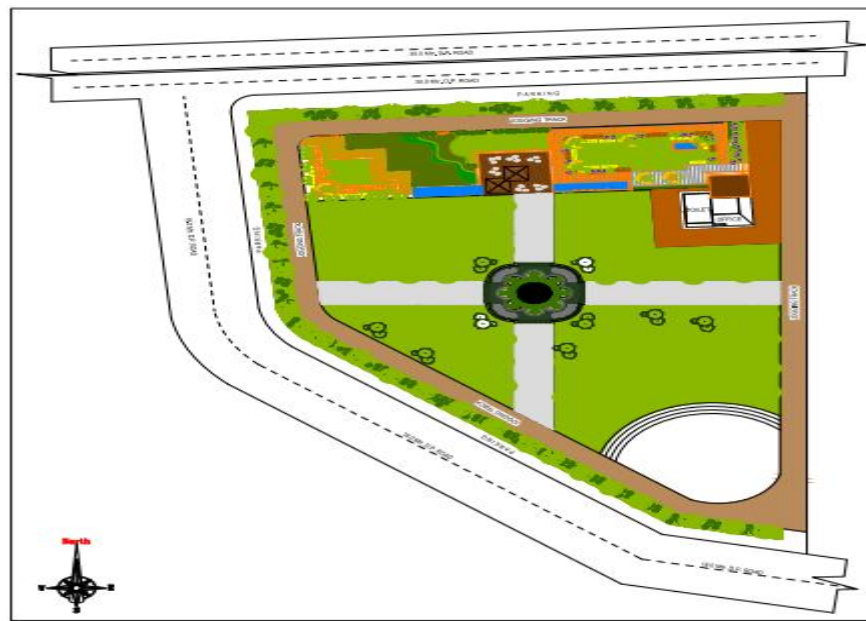


Fig. 10 Areal Development at Parijat Nagar as per proposal

D. Amrutdham (3.46 Acre)



Fig. 11. Location selected at Amrutdham (Satellite view)



Fig. 12 Areal Development at Amrutdham as per proposal



IX. CONCLUSIONS

The study of the current situation of the recreational areas in Nashik was conducted, acknowledging the importance of these areas. The population growth rate and the existing land usage data was processed and used for the proposal purposes in this paper. In all 4 proposals were made at different locations of Nashik city from where they are estimated to be accessible to a vast amount of individuals of the city. These proposals were made by following all the guidelines applicable in this part of the world.

ACKNOWLEDGMENT

We would like to thank the Nashik Municipal Corporation to allow us to use the drafts data readied by them. This data was useful for us to visualise the current situation. We would also like to thank all the people known as well as unknown that contributed to this work and gave us their valuable time.

REFERENCES

- [1] Jennifer R. Wolch, Urban green space, public health and environment justice: the challenge of making cities just green enough, 2009.
- [2] Jasper Schilling, Toward a Greener Green Space Planning, 2010.
- [3] P. Chaudhary, Urban Freenery Status of Some Indian Cities: A Short Communication, 2011.
- [4] F. Gomez, Green Zone in the Future of the Urban Planning , 2004.
- [5] M. Doherty and M. Beatty, Urban Green Space: Connecting People and Nature, 2011.
- [6] Christina A. Breed, Role of Landscape Designers in Promoting a Balanced Approach to Green Infrastructure, 2014.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)