

Conservation Of Natural And Hertiage Resources In Madurai Region, Tamilnadu, India

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ABSTRACT

Madurai is a seat of learning in Tamil literature enriched with ecological traditions and great architecture marbles in south India. Heritage places and landscapes in Madurai are made up of living stories as well as connections to the past, which include nature resources, objects, customs and traditions that individuals and communities have inherited from the past. Madurai is one of the continually inhabited cities in the Indian peninsula, with a history dating all way back to the Sangam period of the pre-Christian era. It was the seat of power of the Pandian empire. Madurai was endowed with a rich cultural heritage and glorious tradition. The study of historical growth of urbanization of Madurai, has been increased and the valuable resources like rich cultural and natural/manmade resources in and around Madurai has brought the habitat to settle in Madurai. Therefore, both government and educated community have taken efforts to teach the public about importance of resources and bring awareness among the people about the quality of urban environment life in proper manner, which is the main duty of every one. The Present study focus on sustainable development approaches implies that the natural, heritage resources of tourism are conserved for continuous use in the future, while still bringing benefits to the present society.

Keywords

Heritage, Conservation, Resources, Excavation, Developmental plan

Introduction

Madurai districts geographically bounded on the North by the district of Dindigul, East by Sivagangai, West by Theni and South by Virudhunagar. Madurai covers areas of 51.55 sq. km. Madurai has several heritage monuments attracts the tourists all over the world (Ratan Deep Singh, 2004). All the monuments are found in natural rock areas and it provides additional enthusiastic and it also seen under the hovering of eco- tourism. Eco- tourism is suffering from the hands of the human beings as well as the natural calamities (Statistical Handbook of Tamilnadu, 2001). Heritage places and landscapes in Madurai are made up of living stories as well as connections to the past, which include nature resources, objects, custom and traditions that individual and communities have inherited from the past. So based on the study of Madurai city has valuable resources like rich natural and manmade resources in / around Madurai it brought the habitat to settle in Madurai (Rehana Tasiq, 2007). The Present study focus on sustainable development approaches implies that the natural, heritage resources of tourism are conserved for continuous use in the future, while still bringing benefits to the present society.

Objectives Defined and Met

- To study the historical and natural heritage sites in Madurai.
- To find out the schemes introduced by Governmental and Non-Governmental organization to conserve the resources in Madurai.

Literature Review

According to the conception, base and review of literature gave the base for the present investigation of Sustainable development. On government, orders and government schemes and programmes launched for the development of urban sectors and also collected some information regarding conservation through one of the NGO in Madurai affirmative steps to ratify the depletion of natural and heritage resources in Madurai region are also taken as a source for this study.

Sustainable and Tourism development

Rehana Tasiq, Sustainable Urbanization and Urban Development Global Scenario, New academy, 2007, p 81. Environmental consideration

in tourism development, the unprecedented and unplanned growth of these urbanization has led to the emergence of a multitude and complex level of physical, social, political and economic etc., following are the high lights of this book.

Ratan Deep Singh, Hand Book of Environmental Guidelines for Indian Tourism, Kanisha Publishers and Distributors, 2004, p 131. The author has written about the conference held by environmental protection worldwide. He given details about the types of environment and effects an environment it mainly affected human beings and living organism and he also suggest an environmental policy and fearing some planning for fiber progress.

Methodology

Historical method in this research referred to historical sites through Madurai so the researchers has historical available of the study as an original document and Survey method (Sample) to study the resources in Madurai region. Questionnaire was administered to the residents of different parts of Madurai city in the age group 45-75 years, to find out the conditions of schemes and the awareness provided by the Government. Data was collected from primary and secondary sources. Primary data was collected through government orders, archival materials, policy notes, master plan, implementation of new schemes, structured questionnaire etc. Random sampling conducted from the selected respondent was evaluated with the help of a questionnaire. Structured interview schedule consisted of both open ended and close-ended questions included in the suggestions. Study was conducted mainly in /around Madurai city (Tamilnadu). The research was done by visiting various government and private organizations. Madurai corporations, Municipalities, Town Panchayats, NGO (Non-Governmental Organization), Forest Administration etc.

Area of the study

The area undertaken for the study was in and around natural & heritage resources of Madurai city.

Statement of the problem

To protect the natural and heritage resources of Madurai region, which bears the heritage of Tamilian culture. Since the local people did not have awareness about the importance of Madurai environment, both government and educated community wanted to teach the public about importance of resources and bring awareness among the people about the quality of urban environment life in proper manner, as it is the main duty of every one.

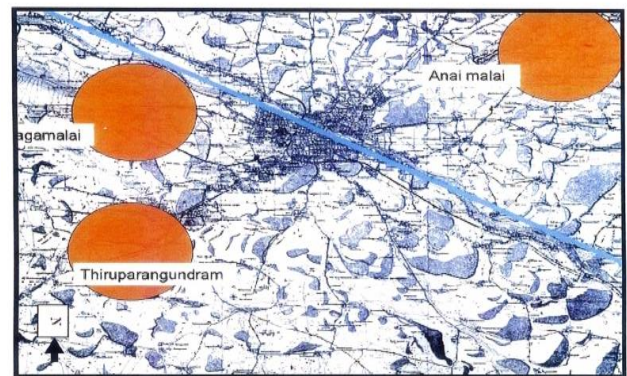


Figure 1. MapShows : Hills In And Around Madurai City(Tamilnadu State) (Sources : Detailed Development Plan for Madurai City, Madurai Corporation, 2011)

Present conditions of Natural Heritage in and around Madurai

1.1Alagarmalai



Figure 2. Hill of Algarkovil in Madurai Region

These hills became an important sources of raw material for Ayurvedic and Siddha medicines. The taboos, rituals and belief associated with the grove, supported by mystic folklore have been the prime motivating factors for preserving the sacred groves in as pristine a condition as possible, The indigenous traditional knowledge of medicinal

plants of various ethnic communities where it has been transmitted orally for centuries is fast disappearing due to advent of modern technology, transformation of culture, and the irresponsible attitude of the tourist behavior. The environment is really deficit in this region and the biodiversity of the region has to be protected. (Heritage and Tourism Development plan)

Tourists use polythene and plastics which are non-bio degradable and they littered it on the environment. There was a Teppakulam tank in Alagar kovil but at present there is no water in this tank.

Alagarkovil the dilapidated Rayagopuram or tower and Thirumalai Nayak mandapam are interesting art pieces to observe but the present condition of the mandapam is in ruined stage. Due to the irresponsible attitude of the tourists / devotee, the environment is getting deteriorated. The visitors of this region litter the eatables, and the wastages. Improper disposal of plastic bags on the environment are the main reason, which has polluted this eco- friendly environment.

1.2 Yanamalai, Pasumalai, Nagamalai

At present these rock surfaces of the hill has been quarried and only a small portion of the rocks remain. In case of Nagamalai hill, quarrying can be seen at the far end of the hillock at the back of the Jain caves.

Dr. C. Santhalingam, Assistant Director, Archaeology Department, claims that the apprehensions about Quarrying are unfounded.



Figure 3. Yanamalai

Heritage sites and the earlier distance of 300 m had been increased. He said adding that in case of

any difference of opinion, the mining Department would have to undertake a joint inspection and the no objection certificate from the Archaeology Department was mandatory. Now granite quarries located near the abodes are exploiting the minerals. In the process, the historical abodes are getting completely eroded.

1.3 Thiruparankundram



Figure 4. Thiruparankundram

Thiruparankundram attracts lakhs of devotees across the country as it is one of the renowned pilgrimage destination of Tamilnadu. The department of tourism and culture is planning is to take up numerous works such as hybrid musical dancing fountain, eco- park, open air theater, land scaping, rose garden, fencing, purchase of boats, creating a boat jetty, toilets, forming water cascade, providing children play equipment and parking lot and pathways, The State Government had also provided a sum of Rs. 51.50 lakhs to build up the infrastructure and this brings in more tourists into the park. This park will facilitate the extension of the tourists stay in Thiruparankundram (Heritage and Tourism Development plan). The Eco Park will be examples of sustainable tourism development.

2.1 Heritage resources in Madurai Region

All the monuments are found in natural rock areas provide additional enthusiastic inputs and it also seen under the hovering of eco- tourism. Hence, eco- tourism is suffering from the hands of the human beings as well as the natural calamities.

The heritage monuments of the Jains in Madurai region. Jains' monuments play a vital role in the attraction of tourists. The Madurai region was once, the centre of Jainism in Ancient period. The

history of Jainism in the Pandyas kingdom can be traced and before the advent of the Christian era in Tamilnadu.(Heritage plan and Corridor for Madurai Development).The jains lived in and around of the hillock of Madurai district, like Anamalai (Fig.5), Alagarmalai, Kilakuilkudimalai, Kongarapulaiyankulam, Muthupatti, Arittapatti, Thirupparangundram and Kalugumalai(G.O.Ms.No.200 Toursim & culture(TI)). Almost all the jains settlements were declared as the protected monuments under the Archaeological and Historical Remains Act of 25/1966. The following Tabular column provides brief description about its destination and other details of these heritage sites (Ladan koil in Anaimalai G.O. MS. No. 23).



Figure 5. Anaimalai Jain Cave Temple



Figure 6. Kizha Kuyil Kudi Jain Thirthankaras

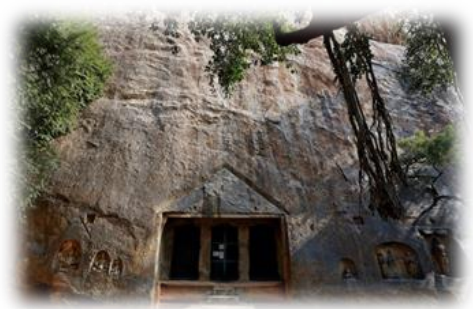


Figure 7. ThenParankundram Rock cut cave Temple: Madurai District

In all the above, Jain's cave have certain similarities, that they all possess cave beds and Tamil inscriptions, paintings and sculptures of olden days. Hence, the Department of Archaeology has declared this area as protected heritage sited in difference times. Heritage cave temples are seen in Madurai region. (Francis, w. Madura Gazetter, Delhi- 2000) Madurai has been considered as the cultural capital of Tamils and temple city of South India. It not only has number of legendary and structural temples but also many cave temples in the natural hillock, like Ladan kovil , Asthagirish waralayam and Arittapatti Sivankovil (Fig. 8) etc(G.O.Ms.No.200 Toursim & culture (TI)).



Figure 8. Shiva Linga and Ganesh and the Front Mandapa at Arittapatti

Table.1: Heritage Resources in Madurai region

| S.No | Name of the monuments | Taluk | Village | Distance sited from Madurai |
|------|--|---------------|--------------------|-----------------------------|
| 1. | Therthangarar sculpture | Madurai | Anamalai | Northern east 18 km |
| 2. | Brahmi inscriptions | Madurai | Varichiyur | Northern east 18 km |
| 3. | Jains stone beds and Brahmi inscription | Madurai | Kongara Pulinkulam | North – 12 km |
| 4. | Jains stone beds, sculpture and Brahmi inscription | Thirumangalam | Meenakshipuram | West – 20 km |
| 5. | Jain store beds and Tamil Brahmi inscription | Madurai | Thiruvadavur | North east – 20 km |
| 6. | Thiruvadavur Brahmi inscription and stone beds | Madurai | Anaimalai | North east – 36 km |
| 7. | Karnkkalakudi Brahmi inscription and stone beds | Madurai | Karunkalakudi | North east – 35 km |

Source: Department of Archaeology Madurai records.

3.1 Conservation scheme to protect resources in Madurai

The sustainable development approaches implies that the natural, cultural and the resources of tourism are conserved for continuous use in the future, while still bringing benefits to the present society. This approach is actually important because most tourism development depends on attractions and activities related to the natural environment, historic heritage and cultural patterns of areas. The Government of Tamilnadu has taken up steps to strengthen the existing infrastructure at the tourist destination in Madurai and to identify the areas of the tourist importance, which are in ruined conditions.

3.2 Madurai Heritage Development Plan

Heritage development plan takes an integrated approach with multi -disciplinary nature with development of heritage as key focus. This approach is fruitful to address the complexity and plurality of Madurai in terms of cultural, historical, architectural, environmental, economic and ethical implications. Heritage is not contradictory to development, but development with proper information's base and considering the local dynamics of the place (Heritage Plan for Madurai).

- The integrating heritage development with the existing planning process and with the local community.
- Heritage aspects of Madurai declared as heritage city under JNNURM scheme.
- The historic city within the four outer concentric streets of Madurai.
- The region around the river Vaigai and other water channels in the city.
- The archaeological tanks and other water bodies within the LPA boundary (Local planning Authority).
- The areas around the natural mountains within the LPA region.
- The festival procession routes with the LPA limits.

3.3 Isolated regions immediate actions

- Establishing a heritage cell, listing and grading of heritage properties.
- Conservation of heritage items within the city.

- Setting up interpretation center, information center in the city(Integrated heritage plan for Madurai).
- Shifting of whole sale markets, hardware shops, electronic shops etc.
- Reducing traffic mobilization in the heritage zones.
- Environmentally up gradation in proposed Zone A and Zone B with security measures in the city for the tourist.
- Improvements in the heritage precincts and water bodies in the heritage zones.

Creating heritage awareness programme in colleges and in public, providing heritage center in Madurai

Creating heritage based employment for the poor people. The plan recommends certain support projects, to facilitate the restoration and rehabilitation process. The implementing agencies are identified to execute projects (Master plan of Madurai district).

The plan also recommends in integrating the heritage projects with other parallel DPR's (Detail project Report) in the city.

The heritage projects derived from the plan creates sufficient space to provide employment opportunities, thus utilizing heritage similarly the revival of water channels and Vaigai river front development can use the plan for integrate its design base for executing the projects.

HDP recommend the actions of immediate, short term and medium actions, which are listed below:

Heritage development plan process Rs. 382.25crores as the total outlay. The plan has four components namely conservation plan, resource plan, open space networking and divided into three phases. The plan incorporates the views of the experts in the field of literature, academia and general public. As part of the plan consultations, seminar and workshops, awareness campus, run for water bodies were organized. This plan mainly supported by (INTACH (Madurai, NGO). Heritage Development plan submitted detailed proposal for immediate action plan for Madurai(Detailed Development Plan for Madurai city).

- Listing and grading heritage properties in ULB (Urban Local Body) area.
- Providing tourist infrastructures in the heritage spots.

- Improvements in the heritage precincts and water bodies in the heritage zones in LPA area.
- Setting up a center for contemporary heritage related activities.
- Setting up of information/ library centers and training centers for heritage.

3.4 Excavation of the area

To facilitate the dating and importance of the region, the excavation should be done in the different areas in the region. The process should be carried with the ASI (Archaeological Survey of India) and state Department of Archaeology.

Immediate Action was taken by Government through,

- Establishing a heritage cell, listing and grading of heritage properties.
- Conservation of heritage items within the city.
- Setting up interpretation centre, information, cultural center in the city.
- Shifting of wholesale markets, hardware shops, electronic shops etc.
- Reducing traffic mobilization in the heritage zones.
- Environmental up gradation in proposed zones with security measures in the city for the projects.
- Improvements in the heritage precincts and water bodies in the heritage (Integrated heritage plan for Madurai).

Data Analysis

The researcher has selected residents from in and around Madurai city. The respondents were selected through random sampling technique on the basis of its location and extension area, and the desired information from the respondents was obtained. The questions related with development were analyzed statistically. Face to face, interview with governmental officials was done to understand the improvement in sustainable growth in Madurai region.

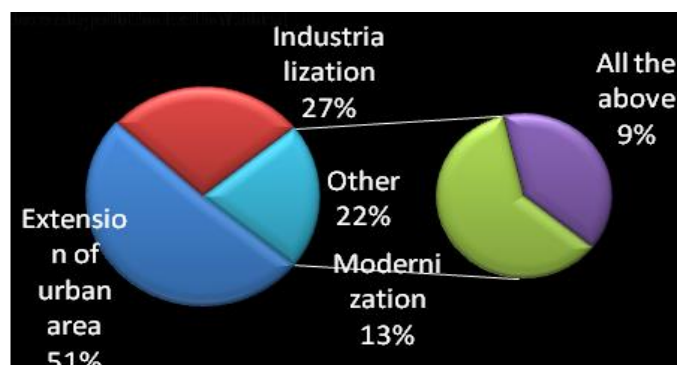


Figure 9. Indicate: Pollution Increasing in Madurai (Sources: Questionnaire from original sources)

The above Figure 4.0 indicates that 51% of the respondents accept extension of urban area, because of the reason of increasing pollution level in Madurai. 27.5% said pollution level increased due to development of industrialization. 13% of the respondents agree with modernization also one of reason for increasing pollution. About 8.5% of the respondent strongly agree with extension of the area and industrialization and modernization were main factors for increasing pollution level in Madurai district.

Table 2 Shows: Preserve the Environmental Resources in Madurai

| S.No | To preserve the environmental resources in Madurai District | Percentage |
|------|---|------------|
| 1. | Strongly agree | 83% |
| 2. | Agree | 17% |
| 3. | Strongly disagree | NIL |
| 4. | Disagree | NIL |

(Sources: Questionnaire from original sources)

Table 2 indicate 83% strongly agree that there is need to protect and preserve the environmental resources. 17% agree with to protect and preserve the environmental resources in Madurai district.

Conclusion

Continuously maintained its growth as a capital city till the Nayaks period and also maintained its urban status. In course of its historical growth many monuments have come into existence, which has accelerated the special structure and growth of the city. Hence, there is a greater need for sustainable environment for the better life which is intended to reduce the tension and fiction

created by the complex interactions between environment and habitat in Madurai. It is an approach which involves working for the long – term liability and quality of both natural and human resources.

Madurai has several ecological traditions, which have preserved the natural environment. Protection of plants and animals as sacred helps to keep the charm of ecology, economy and society safe and balanced. We all should value clean water, our natural habitats and at the same time raise a stronger voice for the environment in the protection of our natural heritage. The ecological heritage can serve as an ideal platform for promoting education about natural and environmental awareness among students and visitors. Natural elements of the environment such as ponds, rivers particularly plants, soil types, local wildlife and hills also have cultural meanings and values. By protecting our irreplaceable natural resources and wise stewardship of Madurai natural resources, we can ensure a better place for our future generations.

While serious efforts for stream lining the process of urbanization are taken, proper infrastructure and civic amenities must be provided and a safe living environment to the public must be ensured. The environment are abundant with economic, social activity facilitated by rapid developments in residential, educational, commercial, industrial, recreational and traffic and transportation sectors. So, the importance of strict enforcement of development control ensures healthy, comfortable and safe environment to the present and future generations. The fact that Sustainable development in Madurai will help to generate employment and improve the standard of living for the people is now fully recognized. Given the significant socio – economic benefits, sustainable and eco-friendly development is imperative for growth. A planned approach to developing responsible environmental plan should be adhered to. In the wake of climate change and global warming, there is an increasing awareness towards protecting the environmental and integrating conservation and community benefits to long term business return.

In future, the sustainable urban development must involve the local community in every initiative to

achieve growth and also ensure to conserve the environment and protect natural and heritage resources in Madurai city. The objectives of research justify the study of heritage and natural governmental and non-governmental organization towards conservation of the resources in Madurai.

Suggestion and Recommendations towards sustainable growth of Madurai Environs

The following mechanism to overcome the effect of environmental degradation and develop the urban quality of life in Madurai city.

- An interpretation center to be proposed facilitate the tourist friendly environment and also created awareness about the area. The center should be proposed in the heritage zone.
- Developing the tourist and pilgrim circuits is another major task. The tourist should be give a different package on historic walks that cover a wide range of services based on the duration. Walks like educational walks, exploratory walk, entertaining walks etc to be executed.
- Carrying out the procedure for the documentation, inspections, identification and prioritizing of resources projects, financial planning system of reporting and review of work plan both short and long term, monitoring and maintenance programmes, security of site, education and visitor services.
- to maintain a, natural and heritage for the promotion of tourism potential area of Madurai.
- Preservation and maintenance of ancient monuments, archaeological sites, traditional knowledge of ethnic tribes and community based natural resources management are essential as they symbolize ancient habitation, ecological and cultural expressions of Madurai,
- Botanical garden may be opened on the Alagarmalai and Sirumalai medicinal herbal plants garden may be opened with research.
- Conservation of Madurai heritage through statutory listing and precincts plans.

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